APPENDIX C

VISUAL IMPACT ASSESSMENT
LIGHTING STUDY

APPENDIX C

- Visual Impact Assessment

VISUAL IMPACT ASSESSMENT
FOR THE
LOS ANGELES AERIAL RAPID TRANSIT PROJECT
LOS ANGELES, CALIFORNIA



Prepared for:

The Los Angeles Aerial Rapid Transit Draft Environmental Impact Report

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1.0 INTRODUCTION

The primary purpose of this Visual Impact Assessment (VIA) is to describe the existing visual and aesthetic conditions and the results of the impact analysis for the proposed Los Angeles Aerial Rapid Transit Project (proposed Project). Visual and aesthetics topics covered in this report include scenic vistas and resources, visual character, light and glare, and shading. Section 2.0 presents a description of the proposed Project location and proposed Project components, including during the construction and operational phases. Section 3.0 presents a discussion of the regulatory framework governing aesthetics and the methodology used to determine impacts. The existing conditions in the Project area are presented in Section 4.0. Section 5.0 presents a discussion of the proposed Project's impacts resulting from construction and operation. Section 6.0 presents mitigation measures to address the potential impacts. Section 7.0 contains the project design features applicable to aesthetics. Section 8.0 contains a list of all the references and sources relied upon to prepare this report.

2.0 PROJECT DESCRIPTION

2.1 Project Overview

The proposed Los Angeles Aerial Rapid Transit Project (proposed Project) would connect Los Angeles Union Station (LAUS) to the Dodger Stadium property via an aerial gondola system. The proposed Project would include an intermediate station at the southernmost entrance of Los Angeles State Historic Park. The proposed Project would provide an aerial rapid transit (ART) option for visitors to Dodger Stadium, while also providing access between the Dodger Stadium property, the surrounding communities, including Chinatown, Mission Junction, Los Angeles State Historic Park, Elysian Park, and Solano Canyon, to the regional transit system accessible at LAUS. The aerial gondola system would be approximately 1.2 miles, and consist of cables, three passenger stations, a non-passenger junction, towers, and gondola cabins. When complete, the proposed Project would have a maximum capacity of approximately 5,000 people per hour per direction, and the travel time from LAUS to Dodger Stadium would be approximately 7 minutes. The proposed Project would provide amenities at Los Angeles State Historic Park, and would provide pedestrian improvements, including hardscape and landscape improvements. The ART system has the ability to overcome grade and elevation issues between LAUS and Dodger Stadium, and provide safe, zero-emission, environmentally friendly, and high-capacity transit connectivity in the Project area that would reduce greenhouse gas (GHG) emissions as a result of reduced vehicular congestion in and around Dodger Stadium and on neighborhood streets, arterial roadways, and freeways. The proposed Project would operate daily to serve existing residents, workers, park users, and visitors to Los Angeles.

Established aerial gondola transit systems worldwide, such as in La Paz, Bolivia, and Mexico City, Mexico, are being used as rapid transit for the urban population that they serve. The proposed Project would employ a Tricable Detachable Gondola system (also known as “3S”).[1] 3S Gondola system cabins carry approximately 30 to 40 passengers. Similar systems are used in Koblenz, Germany, Phu Quoc, Vietnam, and Toulouse, France.

2.2 Project Location

The proposed Project is in the City of Los Angeles, situated northeast of downtown Los Angeles. Figure 2-1 shows the regional location of the proposed Project. The proposed Project would commence adjacent to LAUS and El Pueblo de Los Angeles (El Pueblo) and terminate at Dodger Stadium, with an intermediate station at the southernmost entrance of Los Angeles State Historic Park. The proposed Project would include three stations, a non-passenger junction, and three cable-supporting towers at various locations along the alignment. As shown in Figure 2-2, the proposed Project location would generally be in public right-of-way (ROW), or on publicly owned property following Alameda Street, and then continuing along Spring Street in a northeasterly direction through the community of Chinatown to the southernmost corner of Los Angeles State Historic Park. The alignment would then continue northeast over the western edge of Los Angeles State Historic Park and the Los Angeles County Metropolitan Transportation Authority (Metro) L

[1] The naming convention for this system is derived from the German word “seil,” which translates in English to “rope”. Therefore, Tricable Detachable Gondola systems are known as a “3S” systems due to the use of three ropes, or cables.

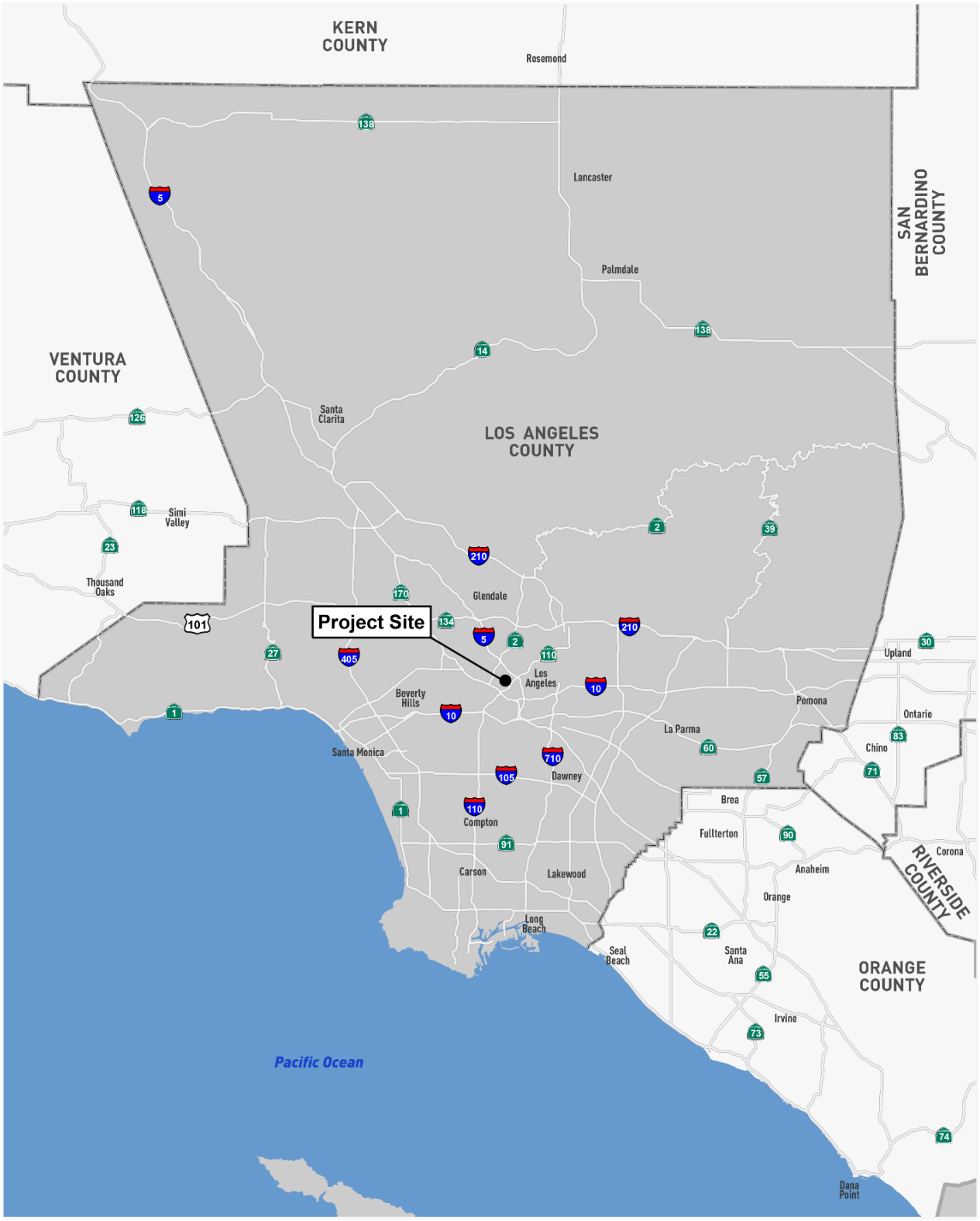

Figure 2-1: Regional Location Map

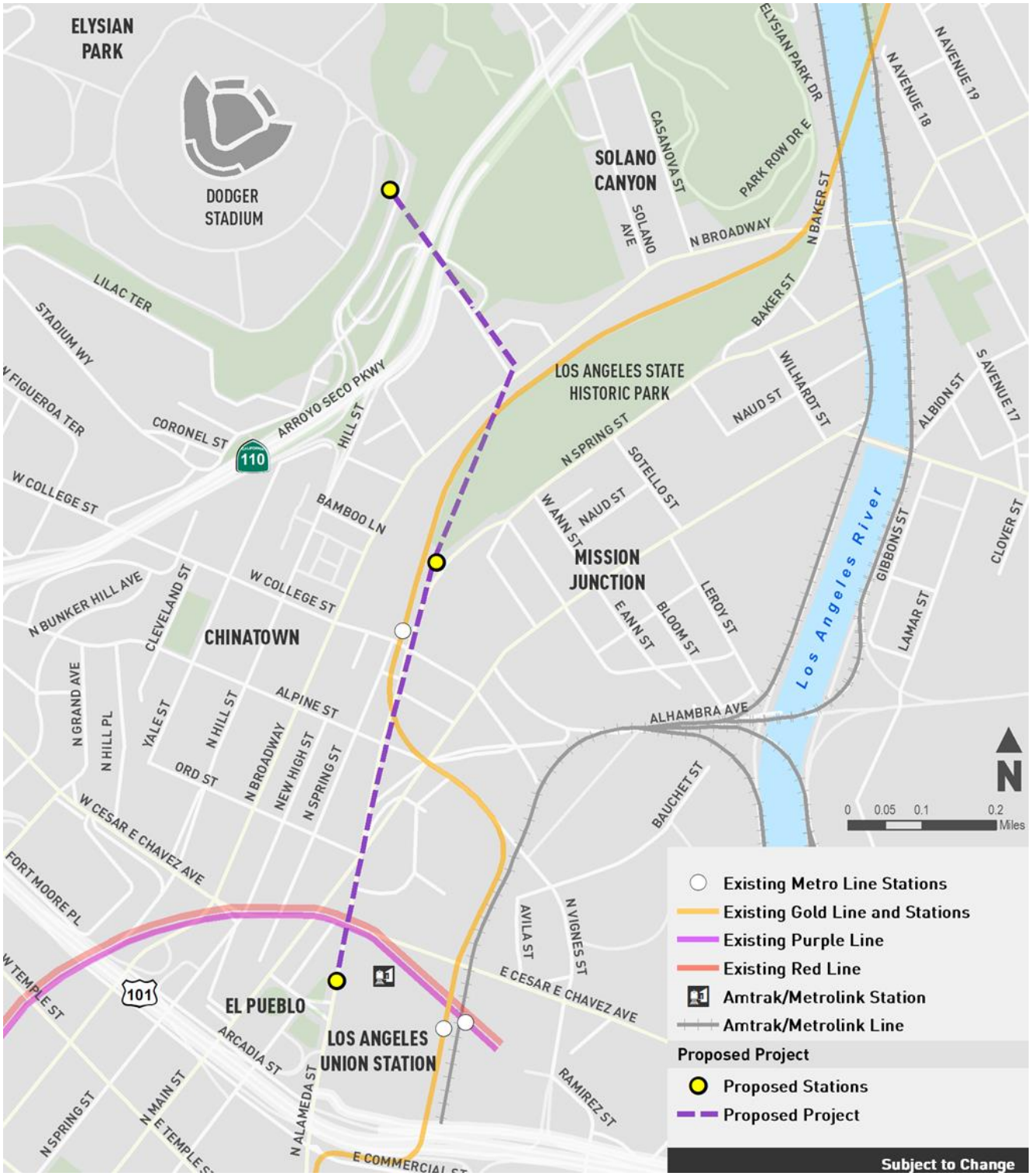

Figure 2-2: Proposed Project Location

Line (Gold) to the intersection of North Broadway and Bishops Road. At this intersection, the proposed Project alignment would turn and continue northwest following Bishops Road toward its terminus at Dodger Stadium in the Elysian Park community. Figure 2-2 provides an overview of the proposed Project location.

2.3 Proposed Project Alignment and Components

The proposed Project "alignment" includes the suspended above-grade cables and cabins following the position of the Project components along the ART route from Alameda Station to Dodger Stadium Station.

2.3.1 Proposed Project Alignment

The proposed Project alignment would extend approximately 1.2 miles beginning near El Pueblo and LAUS on Alameda Street. The proposed Alameda Station would be constructed over Alameda Street between Los Angeles Street and Cesar E. Chavez Avenue, adjacent to Placita de Dolores and planned LAUS Forecourt.

From the Alameda Station, the proposed Project alignment would remain primarily above the public ROW with portions above private property, and travel north along Alameda Street to the proposed Alameda Tower, on a City-owned parcel currently being used as non-public parking storage for City vehicles, which would be constructed on the Alameda Triangle, a portion of City ROW between Alameda Street, North Main Street, and Alhambra Street.

From the Alameda Tower, the proposed Project alignment would continue north along Alameda Street and cross Alpine Street. The proposed Alpine Tower would be constructed at the corner of Alameda Street and Alpine Street on City ROW.

From the Alpine Tower, the proposed Project alignment would follow the public ROW and continue over the elevated Metro L Line (Gold). North of College Street, Alameda Street becomes Spring Street, and the proposed alignment would generally follow Spring Street in a northeasterly trajectory until it reaches the southernmost point of Los Angeles State Historic Park, where the proposed Chinatown/State Park Station would be constructed partially on City ROW and partially within the boundaries of Los Angeles State Historic Park.

The alignment then crosses over the western edge of Los Angeles State Historic Park and the Metro L Line (Gold) tracks.

The proposed Project alignment would continue traveling north towards the intersection of North Broadway and Bishops Road. The Broadway Junction would be at the northern corner of the intersection of North Broadway and Bishops Road (1201 North Broadway). From the Broadway Junction, the proposed Project alignment would travel northwest primarily along Bishops Road, with portions above private property, crossing over State Route 110 (SR-110) towards Dodger Stadium. The proposed Stadium Tower would be on hillside private property north of Stadium Way between the Downtown Gate entrance road to Dodger Stadium and SR-110. The northern terminus of the system would be in a parking lot at the Dodger Stadium property, where the proposed Dodger Stadium Station would be constructed.

2.3.1.1 Alameda Station

The Alameda Station would be on Alameda Street adjacent to the planned LAUS Forecourt and Placita de Dolores between Los Angeles Street and Cesar E. Chavez Avenue. The station would be approximately 173 feet long, 109 feet wide, and 78 feet high at its tallest point, with the passenger loading platform approximately 31 feet above Alameda Street. Vertical circulation elements (i.e., elevators, escalators, stairs) for pedestrian access, which would also serve as queuing areas to the station, would be introduced at-grade north of Placita de Dolores in a proposed new pedestrian plaza at El Pueblo on the west in an area currently used as a parking and loading area for El Pueblo. On the east, vertical circulation elements would be introduced at-grade from the planned LAUS Forecourt. Installation of the vertical circulation elements may include removal and replacement of trees, removal of parking and loading for El Pueblo, and installation of landscaping and hardscape.

2.3.1.2 Alameda Tower

The Alameda Tower would be on the Alameda Triangle, a City ROW between Alameda Street, North Main Street, and Alhambra Avenue consisting of a small green space flanked on all sides by roadways. The Alameda Tower would be 195 feet tall, with the cable suspended 175 feet above ground. Implementation of the Alameda Tower would include reuse and integration of the existing pavers at the Alameda Triangle, as well as landscape and hardscape updates to the Alameda Triangle.

2.3.1.3 Alpine Tower

The Alpine Tower would be located on a City-owned parcel, currently being used as non-public parking storage for City vehicles, at the northeastern corner of Alameda Street and Alpine Street, adjacent to the Metro L Line (Gold). The Alpine Tower would be 195 feet tall at its tallest point, with the cable suspended 175 feet above ground. The Alpine Tower would also include the installation of landscaping and hardscaping near the base of the tower.

2.3.1.4 Chinatown/State Park Station

The Chinatown/State Park Station would be adjacent to Spring Street in the southernmost portion of Los Angeles State Historic Park. The southern portion of the station would be on City ROW, while the northern portion of the station would be integrated into the southern boundary of Los Angeles State Historic Park. The station would be approximately 200 feet long, 80 feet wide, and 98 feet tall at its tallest point, with the passenger boarding platform approximately 50 feet above-grade. Access to the boarding platform would be from the mezzanine via elevators and stairs. Composed of three levels, elevators and stairs from the ground level would lead up to a mezzanine, 27 feet above-grade, and ramps for the queuing area would lead up to the boarding platform, which is 50 feet above ground.

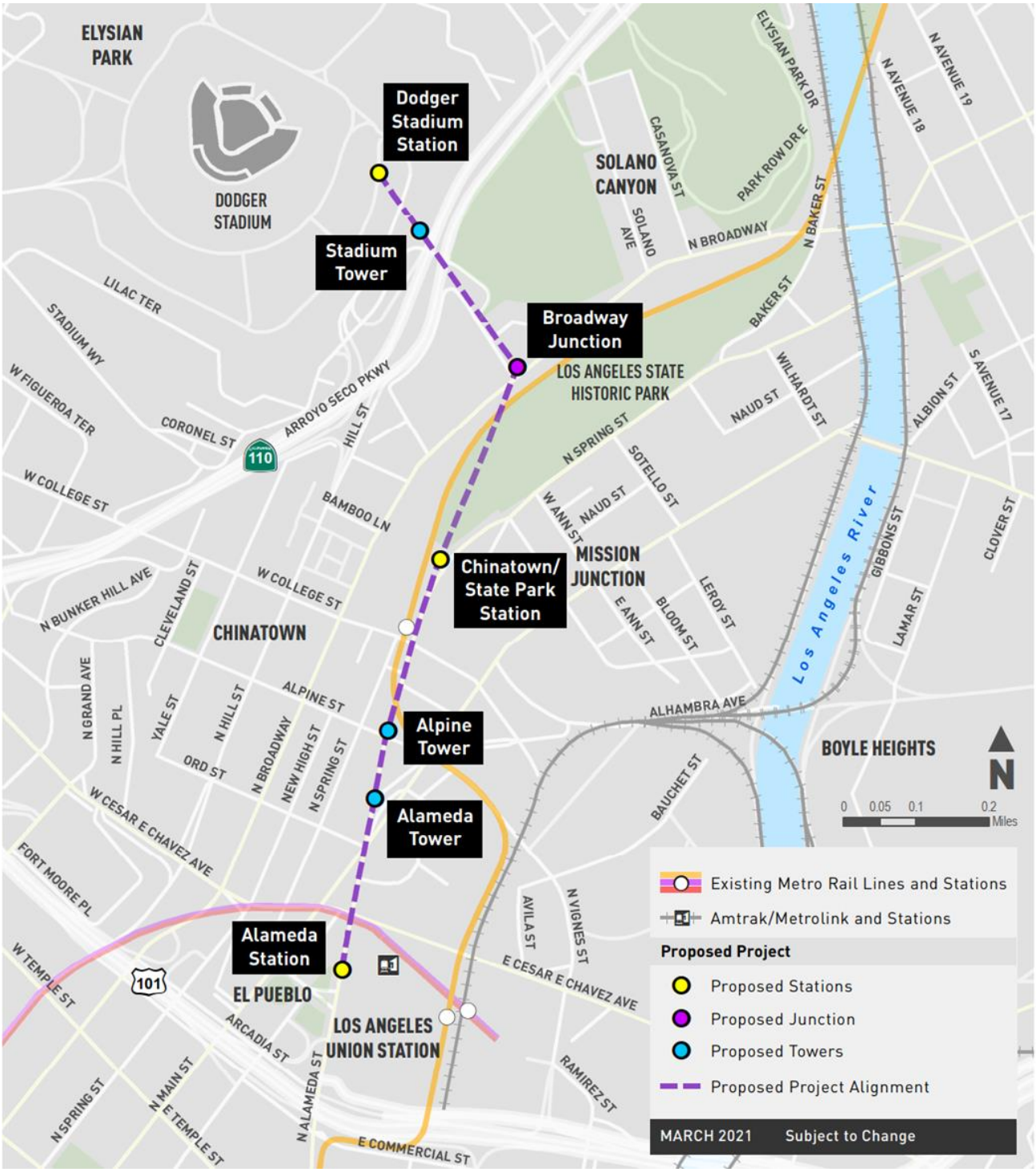

Figure 2-3: Proposed Project Alignment

The Chinatown/State Park Station would also include Park amenities, including approximately 740 square feet of concessions, 770 square feet of restrooms, and a 220-square-foot covered breezeway connecting the concessions and restrooms. Additionally, the Chinatown/State Park Station would include a mobility hub where passengers would be able to access a suite of first and last mile multi-modal options, such as a bike share program. Pedestrian access enhancements could include pedestrian improvements between Metro's L Line (Gold) Station and the Chinatown/State Park Station, consistent with the Connect US Action Plan, including hardscape and landscape improvements, shade structures, and potential seating, as well as support for the future Los Angeles State Historic Park bike and pedestrian bridge. The Chinatown/State Park Station would require the removal of trees and vegetation; however, it would include the installation of landscaping and hardscaping, including integration of the granite pavers. The Chinatown/State Park Station would provide passenger access to Chinatown, Los Angeles State Historic Park, and to nearby neighborhoods and land uses, including the Mission Junction neighborhood, which includes the William Mead Homes public housing complex.

2.3.1.5 Broadway Junction

The Broadway Junction is a non-passenger junction that would be at the intersection of North Broadway and Bishops Road. The junction would primarily be on privately owned property, with a portion of the junction and overhead cable infrastructure cantilevered and elevated above the public ROW. The existing commercial building at 1201 N. Broadway would be demolished. The Broadway Junction would be approximately 227 feet long, 60 feet wide, and 98 feet high at its tallest point, with the platform approximately 50 feet above the ground. Vertical circulation elements (i.e., elevators and stairs) would be installed on the northwestern side of the junction for staff and maintenance access to the platform.

2.3.1.6 Stadium Tower

The Stadium Tower would be on hillside private property north of Stadium Way between the Downtown Gate and SR-110, and would stand 179 feet tall, with the cable suspended 159 feet above ground. The Stadium Tower would also include the installation of landscaping near the base of the tower.

2.3.1.7 Dodger Stadium Station

The Dodger Stadium Station would be in the southeastern portion of the Dodger Stadium property near the Downtown Gate. This station would be approximately 194 feet long, 80 feet wide, and 74 feet high at its tallest point. Cabins at this station would arrive and depart from an at-grade boarding platform, with the passenger queuing area also at-grade. The Dodger Stadium Station would include a subterranean area below the platform for storage and maintenance of cabins, as well as staff break rooms, lockers, and parts storage areas. The cabins would be transferred between the station platform and the subterranean area by way of a cabin elevator. Automated parking and controls would manage the process of storing cabins or returning them to service. Cabins would be returned to and stored at the Dodger Stadium Station when the system is not in use.

Passenger restrooms would be available at the station. The Dodger Stadium Station would also include a pedestrian connection to Dodger Stadium, including hardscape and landscape improvements and potential seating.

The Dodger Stadium Station is adjacent to Dodger Stadium, which is operated as an MLB Stadium. The Project Sponsor will request consideration by the Los Angeles Dodgers of the potential for the Dodger Stadium Station to include a mobility hub, where outside of game day periods, passengers would be able to access a suite of first and last mile multi-modal options, such as a bike share program and individual bike lockers, to access Elysian Park and other nearby neighborhoods, including Solano Canyon. Issues to be addressed regarding the mobility hub include maintaining security for Dodger Stadium and the surrounding surface parking areas

Implementation of the Dodger Stadium Station would require the removal of parking spaces, as well as removal and replacement of landscaping.

2.4 System Operations

2.4.1 Typical Operating Logistics

During operations, the cabins would travel on a continuous loop between the Alameda Station and the Dodger Stadium Station. Cabins would pass through passenger stations at roughly one foot per second (less than one mile per hour) to allow for unloading and loading. If needed, a cabin could be stopped to accommodate passenger boarding. After the cabins pass through the unload/load zones, the doors would close and the cabins would accelerate to match the line speed of the haul rope before reattaching to the haul rope.

At Alameda Station, arriving cabins (southbound) would decelerate, doors would open, and passengers would unload. The cabins would execute a U-turn in the station before passing through the load zone (for northbound passengers), load passengers (if any), close doors, then accelerate to be reattached to the haul rope.

At the Chinatown/State Park Station, cabins would detach from the rope and decelerate to the station speed. Because passenger access would be provided at this station, the cabins would decelerate to about one foot per second (less than one mile per hour), and the doors would open. After traveling through the unload and load zones, the cabin doors would close, and the cabins would accelerate to line speed and then reattach to the haul rope.

At the Broadway Junction, where passenger unloading or loading is not proposed, the cabins would detach from the haul rope, decelerate to a speed of approximately six mph, execute a slight turn to follow the alignment, and then re-accelerate and reattach to the haul rope. As described in Section 2.3.1.5, the Alameda Station to Broadway Junction and Broadway Junction to Dodger Stadium Station systems come together at the Broadway Junction. When the cabins detach from the haul rope in the Junction, their move from one haul rope to the other haul rope would not be perceptible by passengers.

At the Dodger Stadium Station, the cabins would decelerate, doors would open, and passengers would unload. Because the Dodger Stadium Station would be an end station, the cabins would execute a U-turn in the station before passing through the load zone (for southbound passengers), load passengers (if any), close doors, then accelerate and reattach to the haul rope. As described above, gondola cabins would enter, traverse, and depart stations under fully automated control. Operation of the proposed Project would require approximately 20 personnel. Station attendants would be in each station to assure safe boarding or to execute stops, if necessary. Attendants would also provide customer interaction and observation; if a passenger needs special assistance, an attendant may either further slow or stop a cabin. A separate operator may sit in a

booth adjacent to the boarding area and monitor screens, which would show activities in each cabin and station, as well as the system controls.

2.4.2 Queueing and Ticketing/Fare Checking

Queueing areas would be built into—and as necessary, adjacent to—each of the stations to provide a gathering place for passengers waiting to enter the stations, thereby preventing crowding of sidewalks and walkways by passengers around stations. Queueing for the Alameda Station would occur in the planned LAUS Forecourt area on the eastern side of Alameda Street, and north of Placita de Dolores in a proposed new pedestrian plaza at El Pueblo on the western side of Alameda Street. At the Chinatown/State Park Station, queueing would occur on the mezzanine and boarding platform levels. At the Dodger Stadium Station, the queueing area would be on the northern side of the station in a designated queueing area adjacent to the station.

Ticketing for the proposed Project would use either a chip-based card system, or electronic ticketing that could be purchased and saved on a personal mobile device. Using these types of technologies would allow for contactless fare checking at the stations. Riders would pre-purchase their ticket prior to entering the boarding platform, and fares would be checked using a card reader/scanner.

2.4.3 Signage

Similar to other transit projects that incorporate signage, the proposed Project would include signage to support wayfinding for transit patrons, including information about transit connections and other important information to facilitate transit usage. Private funding for the proposed Project is anticipated to be supported by naming rights and sponsorship revenues, and such sponsors would be recognized in Project signage, which would be designed consistent with applicable Metro, City, and State approval requirements. Such signage may include identification and other static signs, electronic digital displays, and/or changeable message light-emitting diode (LED) boards that include both transit information and other content, which may include off-site advertising that generates proceeds to support transit system costs and operations. Signage would be architecturally integrated into the design of the ART system, including its stations, the junction, towers, and cabins. In addition, directional and pedestrian signage would be placed adjacent to and throughout the proposed Project as necessary to facilitate access and safety, including along the pedestrian improvements between Metro's L Line (Gold) Station and the pedestrian connection between the Dodger Stadium Station and Dodger Stadium. Project signage would be illuminated by means of low-level external lighting, internal lighting, or ambient light. Exterior lights would be directed onto signs to minimize off-site glare. Signage would be in conformance with all applicable requirements of the Los Angeles Municipal Code (LAMC), and in accordance with LAMC, lighting intensity will be minimized to avoid negative impacts to adjacent residential properties.

2.4.4 Lighting

Project lighting would include low-level lighting for security and wayfinding purposes adjacent to and in the stations, junction, and towers, in cabins, at the vertical circulation, and areas for ticketing, fare checking, and queueing. In addition, low-level lighting to accent signage, architectural features, landscaping, adjacent pedestrian plazas, Chinatown/State Park Station mobility hub, and potential Dodger Stadium Station mobility hub would be installed at the stations, junction, and towers. Lighting would also be provided underneath the elevated stations and junction. Lighting for the pedestrian access enhancements, including the pedestrian

improvements between Metro's L Line (Gold) Station and the pedestrian connection between the Dodger Stadium Station and Dodger Stadium, would include new pole lights for security and wayfinding purposes, as well as low-level lighting to accent signage and landscaping.

Lighting would be low-level and primarily integrated inside the architectural features. Exterior lighting would be shielded, or directed toward the areas to be lit to limit spillover onto adjacent properties and off-site uses, and would meet all applicable LAMC lighting standards.

2.4.5 Maintenance

The proposed Project would require routine maintenance that would be performed by the system operator. The overall system would be observed on a daily basis as part of the startup routine.

Routine maintenance activities would generally take place during overnight periods or other scheduled down time. Cabins and their associated grips and hangers would be maintained in the shop at the Dodger Stadium Station. A work carrier cabin would be provided to facilitate work at tower equipment. Annual maintenance activities may require crane access at tower locations, including the potential to require the temporary closing of traffic lanes.

Rope maintenance schedules would be determined through a combination of system design and periodic monitoring. The haul rope would need replacement approximately every 5 to 10 years. This would require pulling a new haul rope, which would take up to two weeks to complete.

On a periodic basis, the system would undergo formal testing as prescribed by California Division of Occupational Safety and Health and appropriate ropeway standards. This formal testing is required by standards to occur at least every seven years. It is anticipated that the system would be closed to riders for up to two days during the formal testing events.

Backup power would be provided by battery storage at each station and tower and the non-passenger junction. The battery storage system would be tested on a regular basis, and would provide backup power to allow unloading of the system in the event of a power grid failure.

2.4.6 Power Requirements

Operational power requirements can be separated into two categories: normal operations and emergency operations. Power requirements for 100 percent of the power for the proposed Project would be provided by the City of Los Angeles Department of Water and Power's (LADWP) Green Power Program, through a connection to their power grid, and would include the power to operate the gondola system and the non-gondola system components (i.e., lights, ventilation, escalators, elevators). When operating at capacity, normal operations are estimated to require a total of approximately 2.5 megawatts of power.

Power requirements for emergency operations consist of the energy needed for operations in the event of a power grid failure. The proposed Project would include the installation of backup battery storage at each station, tower, and junction to provide backup power to allow unloading of the system in the event of a power grid failure. The total backup power required to allow unloading of the system is 1.4 megawatts.

2.4.7 Sustainability Features

The proposed Project would provide a sustainable, high-capacity zero-emission ART option for visitors to Dodger Stadium, while also providing access between Dodger Stadium, the surrounding communities, and the regional transit system accessible at LAUS. ART technology is quiet, and the proposed Project would reduce vehicle miles traveled and congestion, leading to reduced GHG emissions and improved air quality.

The proposed Project's stations, junction, towers, and gondola cabins would incorporate energy-efficient, sustainable, water and waste efficient, and resilient features, as feasible. The proposed stations and junction are designed to be open-air buildings, allowing for passive ventilation strategies and providing direct access to outdoor air and natural daylight, while also providing adequate shade protection from heat. The cabins would be ventilated to enhance air quality for passengers.

The design intent and structural strategy for the stations and towers also provides an efficiency of materials. The steel plate tower forms have been designed as "Monocoque" structures, where structure, form, and finish are unified. Materials for the stations, junction, and towers would be locally sourced where possible, and would include recycled content where possible. Light-toned finish materials would also serve to minimize heat island concerns.

The proposed Project would be designed to comply with all applicable State and local codes, including the City of Los Angeles Green Building and Low-Impact Development (LID) Ordinances.

2.4.8 Construction

Construction of the proposed Project is anticipated to begin as early as 2024, and take approximately 25 months, including construction, cable installation, and system testing. The detailed construction procedures informing the environmental impact analyses are included in Appendix B of the Draft EIR. A summary of the construction activities is provided below. Construction of the Project components may partially overlap in schedule, especially because construction would occur at several physically separated sites.

Utility relocations would occur prior to construction of the proposed Project components and would be coordinated directly with the utility providers. Following utility relocations, construction would commence. Detailed information on utilities relocations is included in Appendix B of the Draft EIR.

During construction, some parking spaces at Dodger Stadium would be temporarily closed for construction of the Dodger Stadium Station and for overall Project construction, trailers, laydown and staging areas, and construction worker parking.

Construction of more than one Project component would occur at the same time, with consideration of available materials, work crew availability, and coordination of roadway closures. Table 2-1 includes the estimated duration to complete construction of each of the proposed Project components, the maximum depths of drilled piles, the maximum depth of excavation, the amount of excavation, and the amount of materials (soils and demolition debris) to be exported for each component of the proposed Project.

Table 2-1: Proposed Project Construction Details

Component	Construction Duration	Maximum Depth of Drilled Piles	Maximum Depth of Excavation	Amount of Excavation	Amount of Materials Exported
Alameda Station	17 months	125 feet	10 feet	2,728 cubic yards	2,295 cubic yards
Alameda Tower	12 months	120 feet	10 feet	2,850 cubic yards	2,292 cubic yards
Alpine Tower	11 months	120 feet	10 feet	3,606 cubic yards	2,887 cubic yards
Chinatown/State Park Station	19 months	80 feet	10 feet	6,267 cubic yards	4,567 cubic yards
Broadway Junction	19 months	120 feet	7 feet	6,407 cubic yards	5,379 cubic yards
Stadium Tower	12 months	120 feet	7 feet	1,286 cubic yards	1,202 cubic yards
Dodger Stadium Station	20 months	55 feet	42 feet	44,313 cubic yards	44,001 cubic yards

Following completion of construction, the gondola cables would be installed, followed by system testing and inspections.

Working hours would vary to meet special circumstances and restrictions, but are anticipated to be consistent with the City's allowable construction hours of Monday through Friday between 7:00 a.m. to 9:00 p.m. and Saturdays and National Holidays between 8:00 a.m. to 6:00 p.m. While not anticipated, approval would be required from the City of Los Angeles Board of Police Commissioners for any extended construction hours and possible construction on Sundays.

Anticipated closures would include lane closures in which lanes would be closed 24-hours a day during certain phases of construction, or alternating closures during certain phases of construction, in which closures would occur during construction hours for approximately 10 hours a day, and roads would reopen during non construction hours for approximately 14 hours a day. For alternating closures, during non-construction hours, steel plates would be placed over construction sites to the extent feasible in order to allow for vehicular and pedestrian circulation. The closures and hours would vary between location and phase of construction. The proposed Project would implement a Construction Traffic Management Plan that would include detours and ensure that emergency access is maintained throughout all construction activities.

3.0 REGULATORY FRAMEWORK/METHODOLOGY

3.1 Regulatory Framework

3.1.1 Federal

There are no federal regulations that are applicable to the proposed Project related to aesthetics.

3.1.2 State

3.1.2.1 California Environmental Quality Act

The California Environmental Quality Act (CEQA) declares that it is the policy of the State to take all action necessary to provide the people of the State "with…enjoyment of aesthetic, natural, scenic, and historic environmental qualities" (CA Public Resources Code Section 21001[b]).

3.1.2.2 Los Angeles State Historic Park General Plan

The Los Angeles State Historic Park General Plan serves as a long-range management tool that provides guidelines for achieving the vision and purpose of the park. Goals and guidelines included in the Los Angeles State Historic Park General Plan pertaining to aesthetics and visual resources, as well as site-specific features that may impact aesthetics and visual resources such as landscaping and park facilities, are listed in Table 3-1.

Table 3-1. Los Angeles State Historic Park General Plan Goals and Guidelines

Topic	Goal or Guideline
Access and Circulation	• Goal: Establish a pattern of circulation and access for all visitors, to include integrated and efficient multi-modal transportation, that allows clear choices for visitor arrival, departure, and travel throughout the Park, while creating a sense of place. o Guideline 1: Create a sense of entry and arrival at the Park. Provide easily accessible orientation and information that will permit visitors to choose from a range of available park experiences.
Natural Resources	• Goal: Vegetation management should establish the Park as an important natural open space in the Los Angeles urban area. o Guideline 2: Incorporate public, law enforcement, maintenance staff and park professionals in the design of facilities and landscape to achieve the safest environment possible. Consider the use of such things as visual surveillance, lighting, security systems, patrol and vehicle accessibility, fencing, gates, location and visibility of park facilities, and landscape design to enhance safety. Encourage the California Highway Patrol to provide a safety consideration review for facilities. o Guideline 5: Parkwide vegetation management should establish a native vegetation framework

Table 3-1. Los Angeles State Historic Park General Plan Goals and Guidelines

Topic	Goal or Guideline
	that enables it to become part of the regional Los Angeles River natural open space network and supports the Park's connectivity goals. The framework should use naturalistic native plant associations that will emulate the historic landscape of the Los Angeles Basin and provide a visual identity to the Park. This framework should allow specific landscape treatments for specific areas of the Park that would be compatible with the overall vegetation concept.
Aesthetic Resources	• Goal: Protect and enhance scenic viewsheds and features and preserve the visitor's experience of the surrounding landscape by minimizing adverse impacts to aesthetic resources. o Guideline 1: Landscaping, structures, and other facilities should be sited to be sensitive to scenic views from and through the Park. Facilities should be sited to minimize the impact on views from key viewpoints and to protect and/or emphasize positive scenic views (e.g., views toward the downtown skyline, Broadway Bridge, Elysian Park). o Guideline 2: State Parks should work with adjoining jurisdictions regarding land use and development within the Park viewshed that might affect the site and its aesthetic resources. For example, State Parks should coordinate with the City of Los Angeles with the planning and development of the proposed North Spring Street improvements. • Goal: Integrate the Park's vision into the design of park facilities and programs. o Guideline 3: Create design guidelines that establish an architectural vocabulary that can be used for facilities throughout the Park. The intent is to establish a cohesive design theme through the use of similar styles and/or materials. The design of pedestrian bridges, fencing, lighting, trails, signage, and other park infrastructure should be consistent with the overall design guidelines and with the Park's vision and educational, recreational, and environmental objectives. o Guideline 4: Establish access points into the Park and develop design standards for these "gateway" areas that will create a sense of arrival and establish an initial identity and sense of place for the Park. Design standards and guidelines for access points should distinguish primary and secondary gateways. o Guideline 5: Create a variety of visitor experiences by providing visitors with positive natural fragrances and sounds, such as the scent

Table 3-1. Los Angeles State Historic Park General Plan Goals and Guidelines

Topic	Goal or Guideline
	of landscape plantings and the sounds of birds and water. Consider buffering traffic and transit line noise with appropriate materials and techniques (for example, the sound of cascading water masking unwanted traffic noise).
Education and Interpretation	• Strive to achieve park management goals through interpretation, including public safety, land use, critical resources, human impacts, resource management strategies, and other issues.
Park Development	• Goal: Strive toward distinctive and high-quality facilities that represent the integrity of California State Parks. Design and maintenance of park facilities should embody forward-thinking design theories and produce meaningful places and spaces worthy of preservation by future generations and accessible to all. ○ Guideline 1: Provide visitor use facilities that offer the opportunity for diverse visitor experiences. Facilities will be placed to maximize visitor and staff use while minimizing negative effects on viewsheds, cultural or natural resources, or user conflicts. ○ Guideline 3: Park design should evolve from a collaborative and visual process, led by a design professional, and involve the users, District staff, resource professionals, interpretive planners, and other stakeholders.
Maintenance	• Goal: Maintain park facilities to meet visitor needs. ○ Guideline 3: Maintain roads, parking, and trails to the degree appropriate for the intended use, and in such a manner that they are clearly delineated to the user while not detracting from the visual aesthetics of the area in which they are located.
Concessions	• Goal: Consider appropriate concessions to expand and enhance visitor services. Possible concessions may include retail sales, refreshments, and cultural arts and crafts. ○ Guideline 1: Develop a Concessions Plan that recommends potential concession opportunities in the Park. These concession opportunities should enhance the recreational and/or educational experience at the Park and be compatible with the Park's vision, purpose, classification and guidance for aesthetics and resource values.
Safety	• Goal: Ensure that the Park and all facilities and structures provide a safe environment. ○ Guideline 2: Incorporate public, law enforcement, maintenance staff and park professionals in the design of facilities and landscape to achieve the

Table 3-1. Los Angeles State Historic Park General Plan Goals and Guidelines

Topic	Goal or Guideline
	safest environment possible. Consider the use of such things as visual surveillance, lighting, security systems, patrol and vehicle accessibility, fencing, gates, location and visibility of park facilities, and landscape design to enhance safety. Encourage the California Highway Patrol to provide a safety consideration review for facilities. ○ Guideline 11: Include considerations for creating a safe park environment when planning specific locations and configurations of park plan elements. Park development arrangements that promote optimum park safety considerations include (but are not limited to) general visual surveillance, location and visibility of development areas, lighting, patrol and emergency vehicle accessibility, fencing and boundary treatments, access control, and landscape design.
Sustainable Design Construction and Maintenance	• Goal: Use sustainable concepts in the design, siting, construction, and maintenance of Park facilities (including buildings, parking lots, day use areas, and trails) and in natural and cultural resource programs. ○ Guideline 1: Promote and incorporate the use of sustainable "green" design for Park buildings and facilities. Design decisions should be sensitive to the contextual nature of the site and designs should be done in such a way as to minimize ongoing utilities and maintenance costs. New technology and materials, innovative strategies for visitor use areas, and more efficient equipment will be embraced. ○ Guideline 2: Where possible, use natural, renewable, indigenous, and recyclable materials, and simple-to-maintain and energy-efficient design.

Source: California State Parks, 2005

3.1.3 Local

3.1.3.1 City of Los Angeles General Plan – Framework Element

The City of Los Angeles General Plan is a guide for all local land use decisions for the City of Los Angeles, and shapes the physical development of the City. The Framework Element of the City of Los Angeles General Plan is a strategy for long-term growth that sets a citywide context to guide the update of the community plan and citywide elements. The following goals, objectives and policies from Chapter 5, Urban Form and Neighborhood Design, and Chapter 6, Open Space and Conservation, of the Framework Element are applicable to the proposed Project, as shown in Table 3-2.

Table 3-2. City of Los Angeles General Plan Framework Element Goals, Objectives, and Policies

Chapter	Goals	Objectives and Policies
Urban Form and Neighborhood Design	**Goal 5A**: A livable City for existing and future residents and one that is attractive to future investment. A City of interconnected, diverse neighborhoods that builds on the strengths of those neighborhoods and functions at both the neighborhood and citywide scales.	• **Objective 5.4:** Encourage the development of community facilities and improvements that are based on need within the centers and reinforce or define those centers and the neighborhoods they serve. • Policy 5.4.4: Encourage the use of community facilities for nighttime activity through the use of appropriate roadway and pedestrian area lighting • **Objective 5.5:** Enhance the liveability of all neighborhoods by upgrading the quality of development and improving the quality of the public realm. • Policy 5.5.4: Determine the appropriate urban design elements at the neighborhood level, such as sidewalk width and materials, street lights and trees, bus shelters and benches, and other street furniture. • **Objective 5.8:** Reinforce or encourage the establishment of a strong pedestrian orientation in designated neighborhood districts, community centers, and pedestrian-oriented subareas within regional centers, so that these districts and centers can serve as a focus of activity for the surrounding community and a focus for investment in the community. • Policy 5.8.2: The primary commercial streets within pedestrian-oriented districts and centers should have the following characteristics: • 5.8.2.d. Pedestrian amenities (e.g., benches, pedestrian-scale lighting, special paving, window boxes and planters). • Policy 5.8.4: Encourage that signage be designed to be integrated with the architectural character of the buildings and convey a visually attractive character. • **Objective 5.9:** Encourage proper design and effective use of the built environment to help increase personal safety at all times of the day. • Policy 5.9.1: Facilitate observation and natural surveillance through improved development standards which provide for common areas, adequate lighting, clear definition of outdoor spaces, attractive fencing, use of landscaping as a natural barrier, secure storage areas, good visual connections between residential, commercial, or public environments and grouping activity functions such as child care or recreation areas.
Open Space and Conservation	**Goal 6A:** An integrated citywide/regional public and private open space system that serves and is accessible by the City's population and is	• **Objective 6.1:** Protect the City's natural settings from the encroachment of urban development, allowing for the development, use, management, and maintenance of each component of the City's natural resources to contribute to the sustainability of the region.

Table 3-2. City of Los Angeles General Plan Framework Element Goals, Objectives, and Policies

Chapter	Goals	Objectives and Policies
	unthreatened by encroachment from other land uses.	• Policy 6.1.2: Coordinate City operations and development policies for the protection and conservation of open space resources, by: • 6.1.2.c: Preserving natural viewsheds, whenever possible, in hillside and coastal areas.

City of Los Angeles General Plan – Mobility Plan 2035

The Mobility Element (Mobility Plan 2035) of the City of Los Angeles General Plan outlines a policy foundation for achieving a transportation system that balances the needs of all road users. Priorities include safety, access, infrastructure, collaboration, and healthy communities. The following goals, objectives, and policies from the Mobility Plan 2035 are applicable to the proposed Project as shown in Table 3-3.

Table 3-3. City of Los Angeles General Plan Mobility Plan 2035 Policies

Chapter	Policies
World Class Infrastructure	• 2.3 Pedestrian Infrastructure: Recognize walking as a component of every trip, and ensure high quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment. • 2.11 Transit Right-of-Way Design: Set high standards in designing public transit rights-of-way that considers user experience and supports active transportation infrastructure.
Access for All Angelenos	• 3.1 Access for All: Recognize all modes of travel, including pedestrian, bicycle, transit, and vehicular modes - including goods movement - as integral components of the City's transportation system. • 3.2 People with Disabilities: Accommodate the needs of people with disabilities when modifying or installing infrastructure in the public right-of-way. • 3.4 Transit Services: Provide all residents, workers and visitors with affordable, efficient, convenient, and attractive transit services.
Collaboration, Communication & Informed Choices	• 4.2 Dynamic Transportation Information: Support a comprehensive, integrated transportation database and digital platform that manages existing assets and dynamically updates users with new information. • 4.4 Community Collaboration: Continue to support the role of community engagement in the design outcomes and implementation of mobility projects. • 4.14 Wayfinding: Provide widespread, user-friendly information about mobility options and local destinations, delivered through

Table 3-3. City of Los Angeles General Plan Mobility Plan 2035 Policies

Chapter	Policies
	a variety of channels including traditional signage and digital platforms.

City of Los Angeles Community Plans

Portions of the proposed Project alignment would be in the Central City North Community Plan Area, the Central City Community Plan Area, and the Silver Lake-Echo Park-Elysian Park Community Plan Area. The City of Los Angeles is currently working on an update to the Downtown Community Plan, known as DTLA 2040, which would consolidate the Central City Community Plan and Central City North Community Plan areas. Because it is unknown when the new community plan would be adopted and its EIR certified, the analysis in this report is based on the current applicable land use and zoning designations. Elements of the proposed Project would be subject to the goals, objectives, and policies identified in the applicable community plans, as shown in Table 3-4 below.

Table 3-4. City of Los Angeles Community Plans' Goals, Objectives, and Policies

Plan	Goals, Objectives, and Policies
Central City Community Plan	**Objective 4.2:** To maximize the use of the City's existing and envisioned open space network and recreation facilities by providing connections to the open space • Policy 4.2.1: To foster physical and visual links between a variety of open spaces and public spaces Downtown. • Program: Implement the Civic Center Shared Facilities and Enhancement Plan. • Program: Implement the Metropolitan Transit Authority's Angel's Walk Pedestrian Master Plan.
	Objective 4.4: To encourage traditional and non-traditional sources of open space by recognizing and capitalizing on linkages with transit, parking, historic resources, cultural facilities, and social services program. • 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. • Program: Develop and adopt "non-standard" alternatives to City requirements related to placement of street lights, street trees, sidewalk and other paving material, street furniture, bus shelters, and other features that enhance the pedestrian environment as their primary standard.
	Objective 11-3: To provide an internal circulation system with a focus of connecting specific pairs of activity centers to a system that provides greater geographic coverage of

Table 3-4. City of Los Angeles Community Plans' Goals, Objectives, and Policies

Plan	Goals, Objectives, and Policies
	Downtown, thus giving the Downtown traveler more choices and more flexibility. • Policy: Provide for the efficient circulation into and within Downtown.
Central City North Community Plan	**Goal 2:** A strong and competitive commercial sector which best serves the needs of the community through maximum efficiency and accessibility while preserving the historic commercial and cultural character of the district. • **Objective 2-4:** To enhance the appearance of commercial districts • Policy 2.4.3: Improve safety and aesthetics of parking areas in commercial areas.
	Goal 5: A community with sufficient open space in balance with development to serve the recreational, environmental and health needs of the community and to protect environmental and aesthetic resources. • **Objective 5.1:** To preserve existing open space resources and where possible develop new open space. • Policy 5.1.1: Encourage the retention of passive and visual open space which provides a balance to the urban development of the Plan Area. • Program: The Plan Map designates areas for open space and protects vast open space areas such as Elysian Park from development
Silver Lake – Echo Park – Elysian Valley Community Plan	• Install on-site lighting along all pedestrian walkways and vehicular access ways. • Retail shops shall have well-lit entries with directly accessible pedestrian access from the sidewalk, located at frequent intervals, with well-lit exterior frontage. • Shield and direct on-site lighting down onto driveways and walkways, away from adjacent residential uses. • Provide color, lighting, and surface texture accents and complementary building materials to building walls and facades, consistent with architectural themes of the neighborhood. • Re-pave existing sidewalks in pedestrian-oriented areas, with brick pavers, concrete, or other safe, non-slip materials to create a distinctive pedestrian environment.

3.1.3.2 Cornfield Arroyo Seco Specific Plan

The Cornfield-Arroyo Seco Specific Plan (CASP) establishes planning and zoning provisions for a portion of the Central City North, Northeast, and Silverlake-Echo Park Community Plans, across approximately 660 acres of land, including, and surrounding, Los Angeles State Historic Park. The CASP was adopted in 2013, with the general purpose of facilitating the transformation of the

area from primarily vehicle-oriented and industrial uses, to a mixed-use pedestrian-oriented community that would accommodate residential, light industrial, and commercial uses. The CASP was developed to meet the several key purposes, including:

- Transform an underserved and neglected vehicular-oriented industrial and public facility area into a cluster of mixed-use, pedestrian-oriented, and aesthetically pleasing neighborhoods.
- Increase access to open space.
- Re-connect historical communities.
- Facilitate pedestrian mobility, encourage bicycle use, and provide access to a variety of transit options including frequent light rail and bus connections, shared vehicles and bicycles, and taxis.
- Respect historically significant buildings, including massing and scale, while at the same time encouraging innovative architectural design that expresses the identity of contemporary urban Los Angeles.

Amongst other zoning regulations, the zoning regulations applicable to the proposed Project related to aesthetics include the following general requirements for exterior building lighting:

a. Light levels shall be measured with a photoelectric photometer, following the standard spectral luminous efficiency curve adopted by the International Commission on Illumination.

b. The outdoor lighting for all projects in the Urban Center, Innovation, and Village Districts shall be designed such that it produces a maximum initial illuminance value no greater than 0.20 horizontal and vertical foot candles when measured at the site boundary and no greater than 0.01 horizontal foot candles when measured 15 feet from the site. No more than 5.0% of the total initial lumens shall be emitted at an angle of 90 degrees or higher from nadir (straight down).

c. The outdoor lighting for all projects in the Greenway District[2] shall be designed such that it produces a maximum initial illuminance value no greater than 0.01 horizontal and vertical foot candles when measured at the site boundary. None of the total initial lumens shall be emitted at an angle of 90 degrees or higher from nadir (straight down).

d. Lighting shall be provided along all vehicular access ways and pedestrian walkways.

e. All low pressure sodium, high pressure sodium, metal halide, fluorescent, quartz, 60 watts or greater incandescent, mercury vapor, and halogen fixtures shall be fully shielded in such a manner as to preclude light pollution or light trespass on any of the following: an abutting residential use district; a lot zoned for residential use; the public right of way, a park, or open space.

[2] Los Angeles State Historic Park is designated as Open Space and is in the Greenway Zoning District under the CASP, which allows for the development of recreation and open space uses.

f. Lighting (exterior building and landscape) shall be directed away from properties and roadways, and shielded as necessary. In particular, no lighting shall be directed at the window of a residential unit located either within or adjacent to a project.

Certain outdoor lighting fixtures and activities are exempt from the above general requirements, including internally illuminated signs, architectural lighting, whether it is freestanding or attached to a building, provided the lighting does not exceed an intensity of 60 watts, and pedestrian lighting that does not have an intensity greater than 60 watts.

The Los Angeles City Planning Department is currently evaluating and amending the CASP to strengthen the original vision and intent of the plan. City Planning is looking to make targeted revisions to the plan, including its incentive zoning system, and identify additional areas that may allow for affordable or mixed-income housing development.[3]

3.1.3.3 Los Angeles River Improvement Overlay District

The Los Angeles River Improvement Overlay (RIO) District is a special use district established by Ordinance Nos. 183144 and 183145[4] to support implementation of the Los Angeles River Revitalization Plan, and provides design guidelines related to landscaping; screening/fencing of parking facilities, mechanical equipment, and trash enclosures; exterior site lighting; and administrative review procedures for new development projects in the RIO District. The RIO District Ordinance also provides guidelines for new "complete" streets, and includes a mobility strategy to ensure that the needs of pedestrians, bicyclists, transit riders, and vehicle drivers are considered when major projects or street improvements are undertaken. The RIO does not impose any limits on the size, use, height, and/or setbacks of a building beyond what is restricted by the prevailing zoning and building codes. The RIO District Ordinance includes all of the neighborhoods in the City that are adjacent to the Los Angeles River. The RIO District's boundaries generally extend for one-half mile on either side of the river, creating an area approximately 32 miles long and 1 mile wide of the Los Angeles River that flows within the City's boundaries. Additionally, projects in the Inner Core—areas adjacent to and abutting either side of the Los Angeles River—are also subject to design regulations on landscape buffers, fences, and river access. All of the parcels to the east of the Project alignment from Alameda Station to College Street are within the boundaries of the RIO District, but are not considered part of the Inner Core. The purpose of the RIO District is to:[5]

- Support the goals of the Los Angeles River Revitalization Master Plan;
- Contribute to the environmental and ecological health of the City's watersheds;
- Establish a positive interface between river-adjacent property and river parks and/or greenways;
- Promote pedestrian, bicycle, and other multi-modal connection between the river and its surrounding neighborhoods;

[3] Cornfield Arroyo Seco Specific Plan (CASP) Update. Los Angeles City Planning. Available at: https://planning.lacity.org/plans-policies/casp-update#about. Accessed June 2022.

[4] Los Angeles Department of City Planning. 2015. Zoning Information No. 2358. River Improvement Overlay District: Ordinance Nos. 183144 and 183145. Available at: http://zimas.lacity.org/documents/zoneinfo/ZI2358.pdf. Accessed June 2022.

[5] LAMC. Section 13.17.

- Provide native habitat and support local species;
- Provide an aesthetically pleasing environment for pedestrians and bicyclists accessing the river area;
- Provide safe, convenient access to and circulation along the river;
- Promote the river identity of river adjacent communities; and
- Support the Low Impact Development Ordinance, the City's Irrigation Guidelines, and the Standard Urban Stormwater Maintenance Program.

3.1.3.4 Los Angeles County Metropolitan Transportation Authority (Metro)

Metro Design Criteria

Metro adopted design guidelines that provide a uniform basis for the design of rail projects; and with suitable modification, for other future technology rail projects (Metro 1994). These policies and procedures pertain to design criteria for all construction over, under, or adjacent to a Metro facility or structure, and would be implemented, as appropriate.

Metro Public Art Policy

Metro adopted an art program that mandates that the inclusion of art in the design of public spaces creates a more inviting environment, enlivens a functional world, and contributes to a positive experience for the system's future riders. This policy consists of guidelines pertaining to community involvement, artist collaboration, and certain components of rail, including station design, trees and other landscaping, signage, street and pedestrian lighting, and public art.

Metro Adjacent Development Review

Published in February 2021, Metro has developed an adjacent development review process that guides developers, utility companies, and other third parties to consult with Metro for development, construction, and maintenance activities occurring within 100 feet from Metro ROW and other real estate assets. The process ensures safety and aims to avoid conflicts to Metro transit services and operations.

3.2 Thresholds of Significance

3.2.1 State CEQA Guidelines

This analysis examines whether the proposed Project has the potential to cause significant visual impacts. CEQA does not describe specific significance thresholds. According to the Governor's Office of Planning and Research, significance thresholds for a given environmental effect are at the discretion of the Lead Agency, and are at the levels at which the Lead Agency finds the effects of the project to be significant. Therefore, the following thresholds from Appendix G of the State CEQA Guidelines were used as criteria to determine impact significance.

In accordance with Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact on aesthetics and visual resources if it would:

a) Have a substantial adverse effect on a scenic vista?

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

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

3.2.2 L.A. CEQA Thresholds Guide

In the context of the above questions from Appendix G of the CEQA Guidelines, the City of Los Angeles CEQA Thresholds Guide (L.A. CEQA Thresholds Guide) (2006) for resources and aesthetics states that a determination of significance shall be made on a case-by-case basis, considering factors discussed below.

3.2.2.1 Aesthetics

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

Based on these factors, the Project would have potentially significant impacts if it were to substantially alter, degrade, or eliminate the existing visual character of an area, including valued existing features or resources; or if the Project were to introduce elements that substantially detract from the visual character of an area.

3.2.2.2 Obstruction of Views

- The nature and quality of recognized or valued views (such as natural topography, settings, man-made or natural features of visual interest, and resources such as mountains or the ocean);
- Whether the project affects views from a designated scenic highway, corridor, or parkway;
- The extent of obstruction (e.g., total blockage, partial interruption, or minor diminishment); and

- The extent to which the project affects recognized views available from a length of a public roadway, bike path, or trail, as opposed to a single, fixed vantage point.

Based on these factors, the Project would have potentially significant impacts with respect to views if its development were to obstruct an existing view of a valued visual resource.

3.2.2.3 Shading

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

3.2.2.4 Nighttime Illumination

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

3.3 Evaluation Methodology

The methodology approach presented herein generally follows the guidance outlined in the Guidelines for the Visual Impact Assessment of Highway Projects (2015) published by the Federal Highway Administration (FHWA). Despite assessment guidance, it is acknowledged that the findings of an analysis of existing visual or aesthetic resources and potential visual or aesthetic impacts can be highly subjective, depending on the background of the assessor and the opinions of viewers. The qualities that create an aesthetically pleasing setting or that result in the perception of a visual element as aesthetically positive or negative vary from person to person. Different viewers may consider a change in the visual environment as either beneficial or adverse.

The analysis of aesthetics considers the visual quality of the area immediately surrounding the proposed Project alignment, and the impacts of the proposed Project with respect to the existing aesthetic environment. The analysis considers the physical aspects of the Project and its associated design features, as well as an evaluation of visual simulations showing existing and future conditions at representative locations. The following steps were followed to assess the existing aesthetic setting and potential aesthetic impacts with implementation of the proposed Project:

1. Identify the area of potential impact, including the geographic area of Project visibility.
2. Identify landscape units (LU) that include the limits of a particular viewshed or the distinct transition in the aesthetic setting that correspond primarily to changes in land use.
3. Identify key observation points/key views that include views critical or representative of the visual character of the area.
4. Describe existing aesthetic resources (visual character and visual quality).
5. Describe potential viewers and predict viewer response, including exposure and sensitivity.

6. Describe the massing and scale of the proposed Project. Consider other factors such as open space, which may be anticipated on the basis of the proposed Project's design features.
7. Depict the visual appearance of the Project components and assess their aesthetic impacts using before and after visual simulations.
8. Identify visual impacts for each LU, with as much objectivity as is practical given the subjective nature of aesthetic perceptions, by assessing changes to the visual resources (i.e., visual character and visual quality) and predicting viewer response to those changes.

3.3.1 Area of Potential Impact

The geographic area of project visibility is referred to as the area of potential impact (API). It is determined by the physical constraints of the environment—landform (i.e., topography); land cover (i.e., vegetation and structures); and temporary presence of typical atmospheric conditions (i.e., smoke, dust, fog, and precipitation). In addition, the extent to which a project is visible is constrained by the physiological limits of human sight—location, proximity, and lighting. A review of the Project alignment was conducted to fully understand the viewsheds and its context. This included field visits, and review of existing Project area photographs, aerial photography, recent street views readily available online, and consideration of variations in Project area topography. As a result, it was determined that viewshed distances would vary along and adjacent to the Project alignment. Viewsheds would vary from approximately 0.25 mile up to approximately 0.68 mile from the Project alignment, which is appropriate to define the API (Figure 3-1).

3.3.2 Landscape Units and Key Observation Points

The Project alignment was subdivided into a series of LUs to capture the overall characteristics of different LUs along the alignment. LUs are typically defined by the limits of a particular viewshed, or the distinct transition in the aesthetic setting that corresponds primarily to changes in land use. Key Observation Points (KOPs) (also known as key views) critical or representative of the visual character of the area were identified in each LU. These views may include the presence or absence of landscaping, unique topographic features, the predominant land uses, the scale of buildings, or the scenic vistas, scenic resources, and substantive visual elements that are available, such as open space resources, street trees, and building frontages.

3.3.3 Visual Resources

Visual or aesthetic resources are defined and identified by assessing visual character and visual quality. As described below, the assessment of visual resources was made based on the cohesion or variation in form, the level of up-keep or deterioration of the built environment, and the level of landscaping and visual attractiveness for each LU.

3.3.3.1 Visual Character

Visual character may include the following defined attributes, and is used to describe, not evaluate.

- Form: visual mass and shape
- Line: edges or linear definition
- Color: reflective brightness (i.e., light and dark) and hue (i.e., red, green)

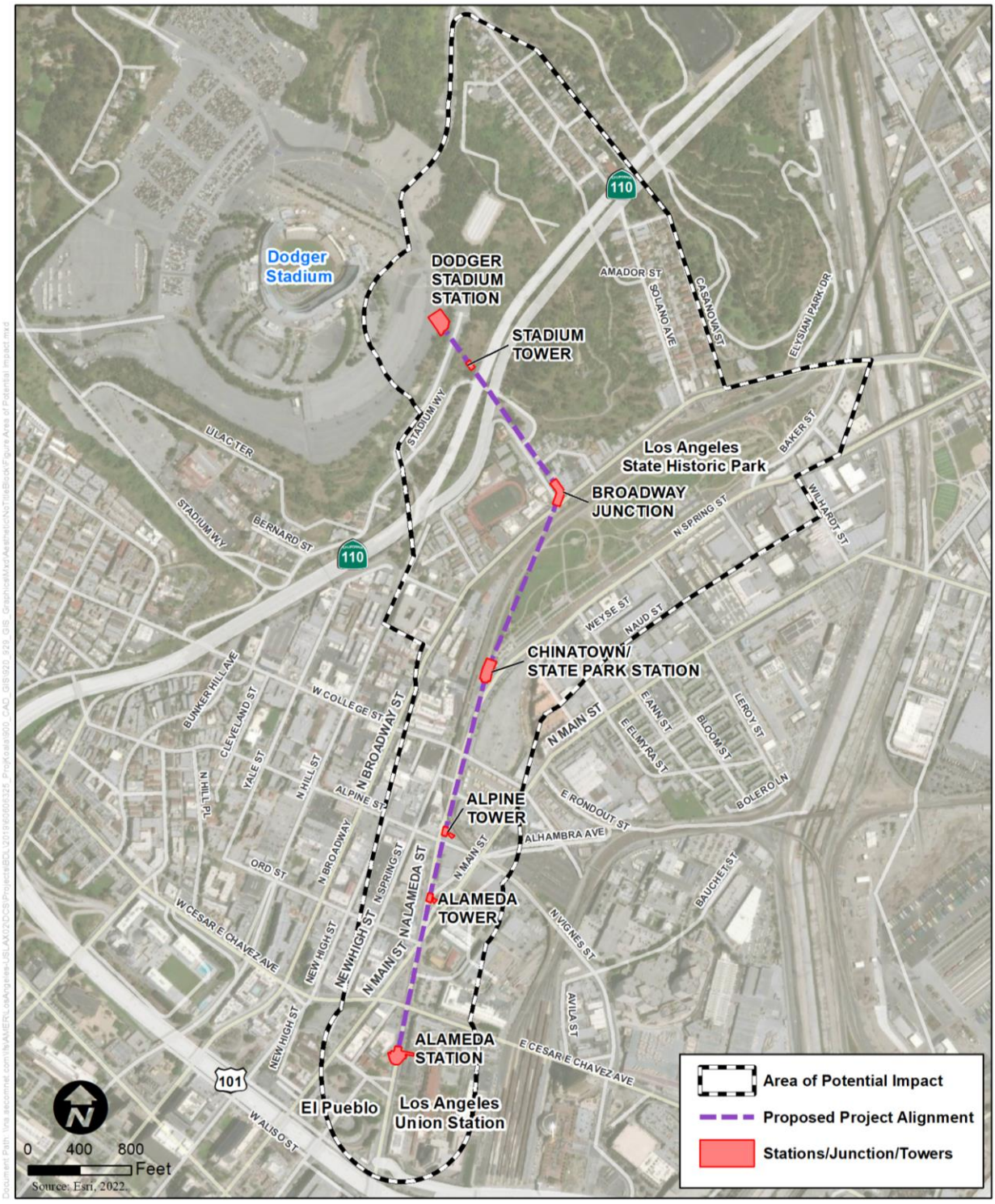

Figure 3-1: Area of Potential Impact

- Texture: surface coarseness
- Dominance: position, size, or contrast
- Scale: apparent size as it relates to the surroundings
- Diversity: a variety of visual patterns
- Continuity: uninterrupted flow of form, line, color, or textural pattern

3.3.3.2 Visual Quality

Visual quality refers to the aesthetics of the landscape, which is based in part on the viewer's values and notions about what constitutes a quality setting. To establish an objective framework, the FHWA concludes that vividness, intactness, and unity are valid and reliable criteria for evaluative appraisals of visual quality. Each criterion was assigned a qualitative ranking (low, moderate, and high) for each LU. The combined result of all three criteria indicates the degree of visual quality.

- Vividness is the extent to which the landscape is memorable, and is associated with distinctive, contrasting, and diverse visual elements. For example, high vividness represents dramatic background views toward the San Gabriel Mountains.
- Intactness is the integrity of visual features in the landscape, and the extent to which the landscape is free from non-typical visual intrusions. For example, high intactness embodies a consistent image of well-maintained homes or multi-family structures and street edge treatment.
- Unity is the extent to which visual elements combine to form a coherent, harmonious visual pattern. For example, high unity attests to the careful design and organization of buildings, structures, railroads, and streets.

3.3.4 Viewers and Viewer Response

Viewers are people whose views of the landscape may be altered by the proposed Project—either because the landscape itself has changed or their perception of the landscape has changed. Viewer groups were identified by observing the land uses and circulation patterns throughout the Project area.

Viewer response is a prediction of the viewer's reaction to changes in the visual or aesthetic environment and has two dimensions—viewer exposure and viewer sensitivity. As shown in Table 3-5 (Viewer Groups) below, viewer sensitivity is strongly influenced by a viewer's activity, the amount of time spent looking at a view, and awareness of his or her surroundings. People who view a landscape infrequently, view it for short periods of time (such as motorists), or are not attentive to it due to focusing on other activities (such as commercial and office building tenants), are often less sensitive to changes, and are assumed to have low viewer sensitivity. Local values may confer visual significance on landscape components and areas.

Moderate and highly sensitive viewers generally include pedestrians and recreationalists, respectively. Less-sensitive viewers include motorists or commuters.

Under the L.A. CEQA Thresholds Guide (2006), visual impacts are assessed based on changes to views from publicly accessible locations or public views. Commercial and office tenants in local buildings are not considered a viewer group in the analysis because their views are private views.

Therefore, commercial and office tenants are not considered a viewer group. Similarly, residents in residential buildings are not considered a viewer group in the analysis. Any references to and analysis of residential views and resident viewer groups, which are assumed to be associated with private residential properties, are provided only for informational purposes, because the L.A. CEQA Thresholds Guide (2006) does not protect private views from residential properties.

Table 3-5. Viewer Groups

Viewers	Description	Viewer Response	
		Viewer Exposure	Viewer Sensitivity
Pedestrians	People walking to or from land uses (e.g., business patrons, employees, students, transit users, retail shoppers, restaurant-goers, and civic building users)	High due to long duration of views and walking at a leisurely pace.	Moderate due to primary focus in other activities or engaged in observing their surroundings.
Recreationalists (including Tourists)	Users of parks, open space and trails (e.g., bicyclists, hikers).	Moderate due to somewhat long duration of views and riding or generally traveling at a slower speed.	High due to specifically seeking a pleasant visual setting or experience.
Motorists	Commuters, local residents, bus drivers and commercial truck drivers traveling to and from land uses.	Low due to short duration of views and high travel speeds.	Low due to task or demand of paying careful attention to the road ahead.

Source: FHWA, 2015

3.3.5 Visual or Aesthetic Impact

Visual or aesthetic impacts may include the loss of scenic resources, obstruction of scenic views, and the introduction of new project-related features that may influence the significance, scale, or character of the existing visual environment. Project-related features associated with the proposed Project consist of cables, three passenger stations, a non-passenger junction, towers, gondola cabins, cables, signage, and lighting.

The extent of visual impacts is determined for each LU, with as much objectivity as is practical given the subjective nature of aesthetic perceptions, by assessing changes to the visual resources (i.e., visual character and visual quality) and predicting viewer response to those changes.

Changes in visual character is evaluated by identifying how visually compatible a project would be with the existing visual condition. If the visual character of the project would be similar to the existing visual character, visual compatibility would be high. If the visual character of the project contrasts strongly with the existing visual character, the visual compatibility would be low. Similarly, to evaluate the change in visual quality, the existing visual quality ratings are compared to the overall ratings for post-project conditions. In terms of viewer response, a minor change to the existing visual resource would have a low viewer response to change; a moderate change with moderate viewer response; and a high level of change with high viewer response. Architectural renderings and photo-realistic visual simulations were created and used to illustrate

where visual changes would be most noticeable after implementation of the proposed Project. These renderings are conceptual and do not represent the final design of the Project at this time.

Based on the assessment framework described above, the overall visual impacts were qualitatively categorized or ranked as low, moderate, or high, as described in Table 3-6 (Visual Impacts).

Table 3-6. Visual Impacts

Visual Impact	Change in Visual Resources	Change in KOPs	Level of Viewer Response
Low	Slight change; new project features would be built in a manner generally compatible with the existing environment	No change	Little or no response to change because it is barely noticeable
Moderate	Moderate change	Moderate or negligible change	Moderate or sensible response
High	Extensive change; new visual elements would be incompatible with the existing environment	Prevalent change; new views would be incompatible with the existing environment	High due to visual dominance

Source: FHWA, 2015

4.0 EXISTING CONDITIONS

This section discusses the existing visual conditions of the Project area, especially for the API. Visual and aesthetics resources were identified, consistent with the methodology outlined in Section 3.0. These resources include, but are not limited to, structures of historic significance or visual prominence; open space and recreational areas; distant views of the horizon from public locations; and landscaped areas.

4.1 Regional Setting

The regional visual setting is characterized by a primarily urban environment featuring a variety of commercial, industrial, and residential development types, including passive open space areas and transit/transportation uses, and varied topographic conditions. The Project area has several visual resources, including views of the downtown Los Angeles skyline, LAUS, El Pueblo, Los Angeles State Historic Park, Arroyo Seco Parkway, Dodger Stadium, and the mountains that make up the Transverse Ranges, including the San Gabriel and San Bernardino Mountains. The Project area can be characterized as relatively flat with minor changes in elevation. The Elysian Hills is the only feature in the Project area that has a moderate to highly rugged topography. The development pattern in the Project area is generally medium-intensity residential, commercial, and industrial land uses, and the area is of an urban character.

4.1.1 Scenic Vistas

The term “scenic vista” generally refers to visual access to, or the visibility of, a particular sight from a given vantage point or corridor[6]. The L.A. CEQA Thresholds Guide (2006) notes the value of preserving sightlines to designated scenic resources or areas of visual interest from public vantage points. The subjects of valued or recognized views may be focal (meaning of specific individual resources), or panoramic (meaning broad geographic area). Panoramic views are typically associated with scenic vistas that provide a sweeping geographic orientation. Examples of panoramic views include urban skylines, valleys, mountain ranges, or large bodies of water. Examples of focal views include public art/signs and notable buildings and structures. The nature of a view may be unique, such as a view from an elevated vantage point or particular angle.

Planning documents applicable to the Project area were reviewed to determine whether the Project would affect scenic vistas. Specific to the proposed Project, views of the downtown Los Angeles skyline, LAUS, El Pueblo, Los Angeles State Historic Park, Arroyo Seco Parkway, Dodger Stadium, and the mountains that make up the Transverse Ranges, including the San Gabriel and San Bernardino Mountains are taken into consideration. Other areas of visual interest from public vantage points were also considered.

Existing views across the API and surrounding area, as discussed below, are based on field observations from surrounding public streets, freeways, and plazas. Although views from representative vantage points are discussed for informational purposes, the degree of impact relative to the threshold applies to views from public vantage points. Under the L.A. CEQA Thresholds Guide, an office building or private residence would not be considered a viewing

[6] City of Los Angeles, CEQA Thresholds Guide, 2006, p. A-1.

location since views of broad horizons, aesthetic structures, and other scenic resources would not be available to the public.[7]

4.1.2 Scenic Resources

Scenic resources refer to natural or manmade features of high aesthetic quality. Views of these resources from public and private areas contribute to the overall attractiveness of the City and the quality of life enjoyed by its residents, visitors, and workforce. Such features can include landscaping, heritage trees, or natural vegetation and landforms, as well as buildings and other structures with aesthetic value. Pursuant to CEQA Guidelines Appendix G, this area of consideration includes specific mention of such natural or manmade features that are within the view field of a state scenic highway.

No State- or County-designated scenic highways or eligible State scenic highways are in the Project area. The closest officially designated State scenic highway is State Route 2 (SR-2), approximately 11 miles north of the Project alignment (Caltrans, 2022).

The Arroyo Seco Parkway/SR-110, which runs northeasterly from its interchange with U.S. 101 to East Glenarm Street in Pasadena, is also in the Project area. Although the Arroyo Seco Parkway/SR-110 is a National Scenic Byway[8] and a California Historic Parkway[9], SR-110 is not an officially designated State scenic highway, as determined by Caltrans *Scenic Highways – Scenic Highway System List.*

4.1.3 Light and Glare

The Project area is a developed, urban area with a high amount of existing ambient lighting. The high levels of ambient lighting exist due to vehicular and pedestrian street lighting, building security lighting, outdoor landscaping lighting, and lighting along and adjacent to the various dedicated transit guideways traveling to LAUS, such as the elevated Metro L Line (Gold). In addition, high levels of ambient lighting are exhibited from vehicle and truck headlights traveling on streets and the SR-110. Cathedral High School currently has high-poled sports field lighting visible from North Broadway, Los Angeles State Historic Park, and area residents when in use. Dodger Stadium has extensive television-quality sport field lighting in use during games and

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7 City of Los Angeles, CEQA Thresholds Guide, 2006.

8 The National Scenic Byways Program was established as part of the Intermodal Surface Transportation Efficiency Act of 1991 as a means to maintain the scenic, historic, recreational, cultural, archeological, and natural qualities of scenic byways. The National Scenic Byways Program provides procedures for state designation of National Scenic Byways, in cooperation with local jurisdictions, as well as the designation of All-American Roads and Federal Agency Scenic Byways. Federal Agency Scenic Byways are roads or highways located on lands under Federal ownership which have been officially designated by the responsible federal agency as a scenic byway.

9 The California Historic Parkway System includes those portions of the State highway system that (1) were constructed prior to 1945; (2) have been recognized by Caltrans or the Office of Historic Preservation in the Department of Parks and Recreation as having historical significance, including notable landmarks, historical sites, or natural or human achievements that exist or that occurred during the original construction of the parkway or in the immediately adjacent land area through which the parkway currently passes; (3) are bounded on one or both sides by federal, State, or local parkland, Native American lands or monuments, or other open space, greenbelt areas, natural habitat or wildlife preserves, or similar acreage used for or dedicated to historical or recreational uses; and (4) are traversed, at the time of designation and by the department's best count or estimate using existing information, by not less than 40,000 vehicles per day on an annual daily average basis (California Streets and Highways Code, Section 280).

special events. Large special events, which occasionally occur at Los Angeles State Historic Park, can also generate high levels of lighting.

4.1.4 Shading

Shadows are cast in a clockwise direction from west/northwest to east/northeast, from the morning to afternoon hours, during the Spring, Summer, Autumn, and Winter seasons of the year. Generally, the shortest shadows are cast during the Summer, and grow increasingly longer until the Winter. During the Winter, the sun is lower in the sky, and shadows are at their maximum coverage lengths. Shadow-sensitive uses generally include routinely useable outdoor spaces associated with residential, recreational, or institutional land uses; commercial uses, such as pedestrian-oriented outdoor spaces or restaurants with outdoor eating areas; nurseries; and existing solar collectors/panels. Due to the relatively dense arrangement of existing buildings and structures in the Project area, a large amount of existing shadow coverage likely currently exists.

4.2 Local Setting

The following describes the existing visual and aesthetic conditions in the immediate vicinity of the Project alignment. The proposed Project commences adjacent to Placita de Dolores and planned LAUS Forecourt, and terminates at Dodger Stadium. As described in Section 2.3.1 and Section 2.3.2, from the Alameda Station, the proposed Project alignment would generally follow Alameda Street and Spring Street in a northeasterly direction through the community of Chinatown, flying over Los Angeles State Historic Park to Bishops Road, and then flying over SR-110 and terminating at Dodger Stadium, in the community of Elysian Park.

Six generalized LUs were defined along the proposed Project alignment and are described below. The LUs encompass the location of the proposed Project alignment and adjacent area, divided into LUs beginning in the southern portion of the Project alignment and ending in the north. The existing visual character and quality, as well as the primary viewers, are described below for each LU. In addition, each LU includes a rating of the existing vividness, intactness, unity, and visual quality as described in Section 3.3, Methodology. Table 4-1 lists and describes each LU, as well as the 30 KOPs (or key views) and their corresponding views included in each LU. Figure 4-1 shows the overview of the KOPs (or key views) identified throughout the LUs. These KOPs are used for before and after photorealistic and true-to-scale visual simulations in Section 5.0. Figure 4-2, Figure 4-3, and Figure 4-4 show the KOP locations in detail. Locations of sensitive viewers are identified on Figures 4-2 through 4-4; however, not all sensitive viewers would have views of the proposed Project, or would be visually impacted by the Project. Figure 4-5 illustrates the boundaries of the LUs.

Table 4-1. Landscape Units/LUs and KOPs

Landscape Unit	Extent	KOPs Included	Viewer Groups
1	Arcadia Street to Cesar Chavez Avenue	KOP 1 through KOP 7	Motorist, Union Station patron, pedestrian, El Pueblo tourist
2	Cesar Chavez Avenue to Alpine Street	KOP 8 through KOP 10	Motorist, pedestrian
3	Alpine Street to Southwestern Corner of Los Angeles State Historic Park	KOP 11 through KOP 15	Motorist, transit commuter, pedestrian
4	Southwestern Corner of Los Angeles State Historic Park to North Broadway	KOP 16 through KOP 19	Motorist, transit commuter, pedestrian, recreationalist
5	North Broadway to SR-110 (Arroyo Seco Parkway)	KOP 20 through KOP 25	Motorist, pedestrian, patrons of nearby school
6	SR-110 (Arroyo Seco Parkway) to Dodger Stadium	KOP 26 through KOP 30	Motorist, pedestrian, Dodger Stadium patron



Figure 4-1: KOP Locations Overview

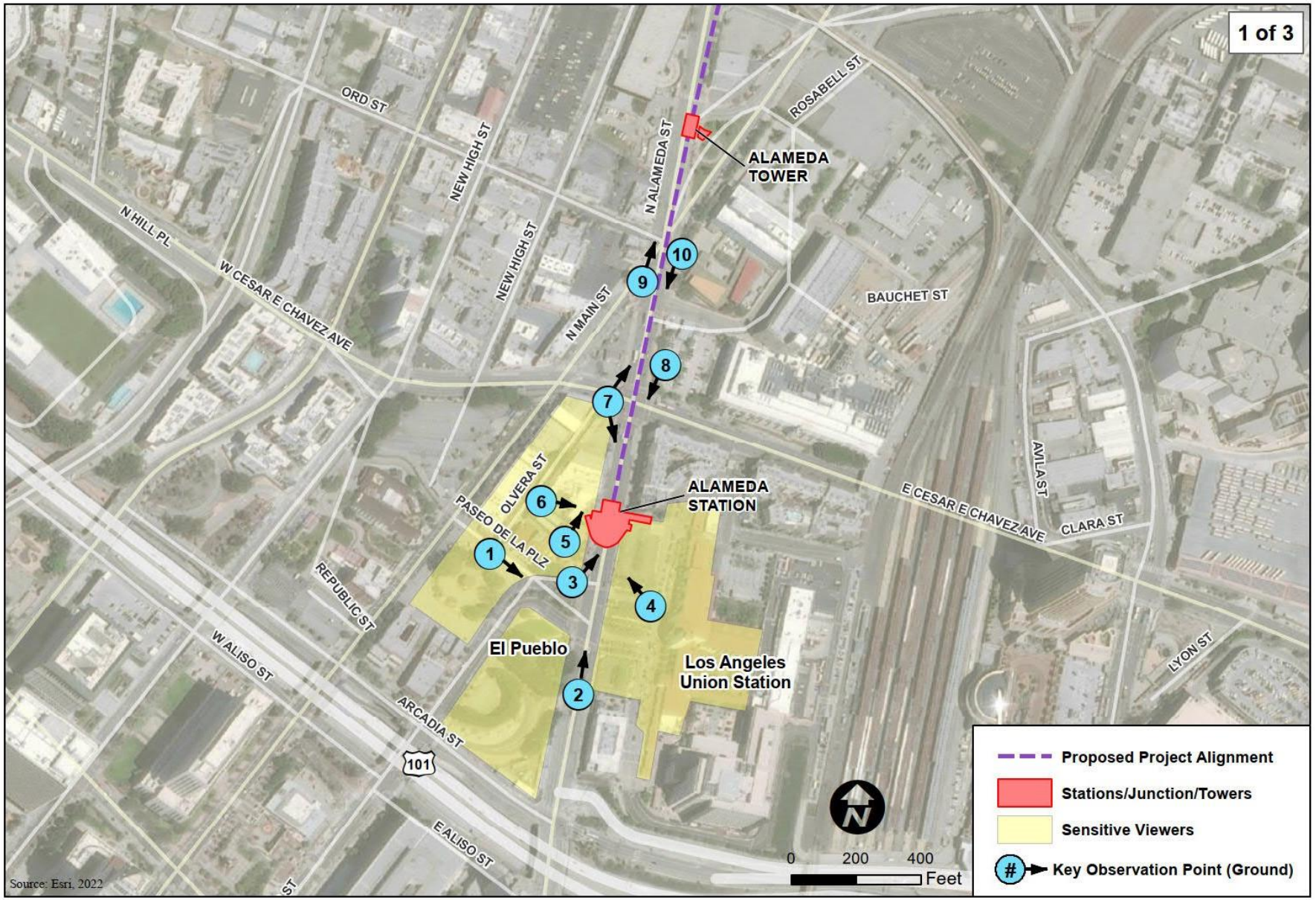

Figure 4-2: Detailed KOP Locations Map of Southern Portion of Alignment

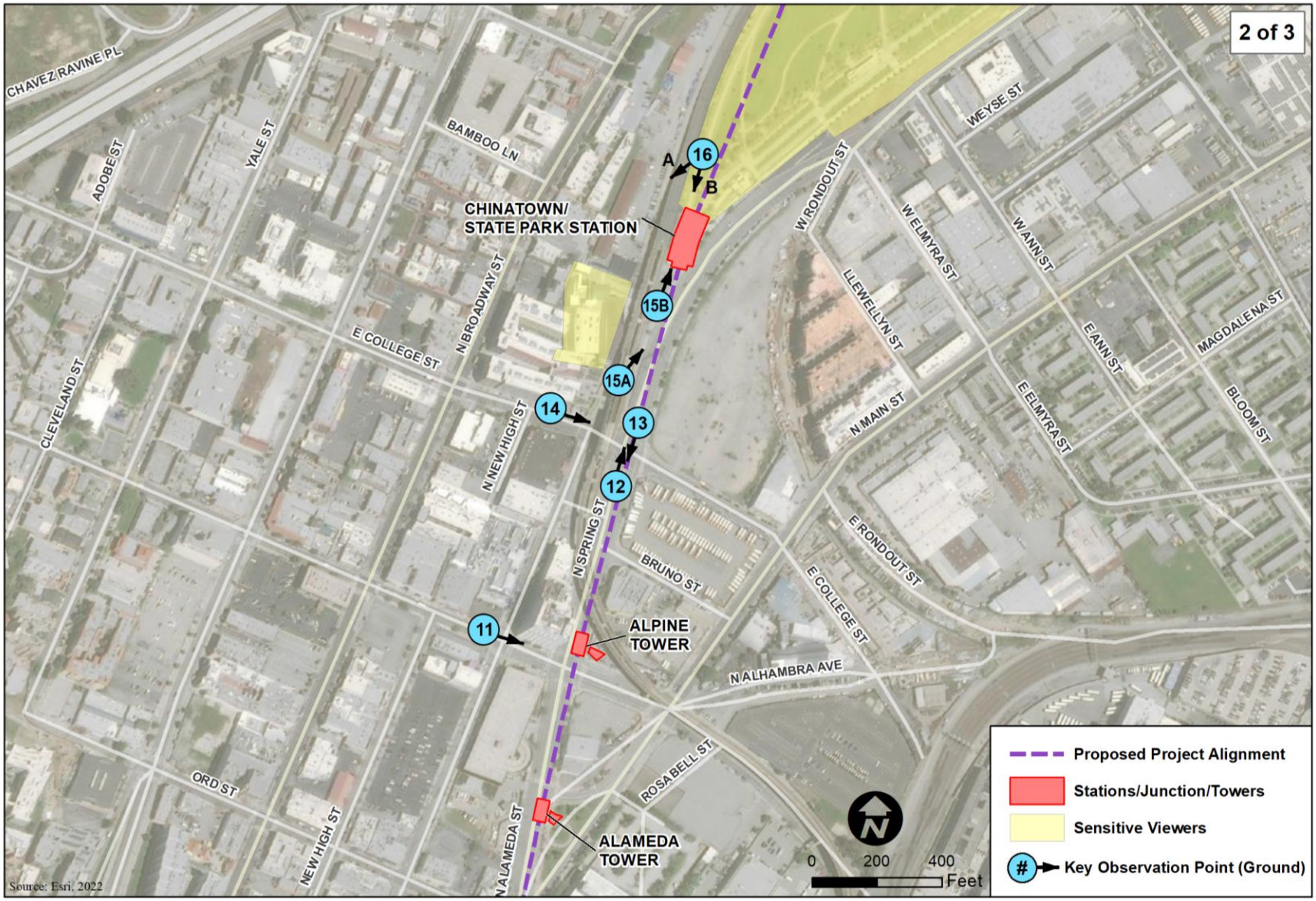

Figure 4-3: Detailed KOP Locations Map of Middle Portion of Alignment



Figure 4-4: Detailed KOP Locations Map of Northern Portion of Alignment

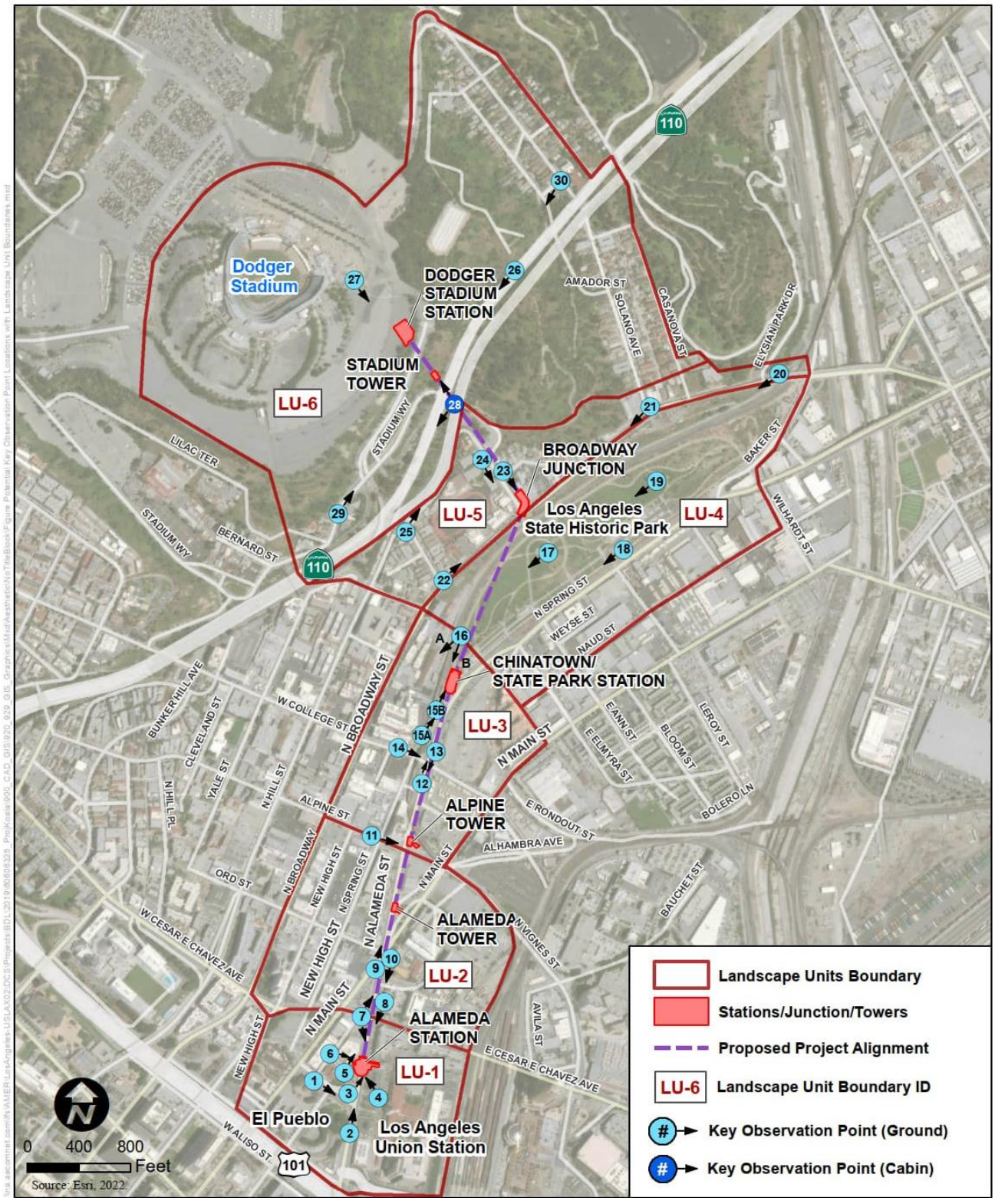

Figure 4-5: Map of Landscape Units

4.2.1 Landscape Unit 1 – Arcadia Street to Cesar E. Chavez Avenue

Landscape Unit 1 (LU-1) begins at the intersection of Alameda Street and Arcadia Street, directly north of U.S. 101, and continues north along Alameda Street to Cesar E. Chavez Avenue. LU-1 is characterized by historic landmarks that are visually memorable. The historic Los Angeles Union Station Passenger Terminal is on the eastern side of Alameda Street, directly across from El Pueblo de Los Angeles (El Pueblo) historic landmark, and Placita de Dolores, on the western side of Alameda Street. LAUS includes several lines of tall palm trees and other landscaping along the vehicular and pedestrian entrance/exit from Alameda Street (Figure 4-6). Originally constructed in 1939, LAUS includes a combination of Spanish Colonial Revival and Art Deco architectural styles, which result in the building and grounds being one of the most identifiable landmarks in the City (Los Angeles Conservancy, 2020). For more information on the historic Los Angeles Union Station Passenger Terminal and El Pueblo landmarks, see the Historical Resource Technical Report prepared for the proposed Project.



Figure 4-6: Existing View of LAUS Looking South along Alameda Street

El Pueblo is near the site of the early Los Angeles pueblo or town, where settlers established a farming community in 1781, and is considered to be the historic and symbolic heart of the City (El Pueblo, 2022). The attractions, museums, and other uses in El Pueblo in LU-1 include Los Angeles Plaza Park (Father Serra Park), Placita de Dolores, Avila Adobe, Olvera Street marketplace, Plaza Substation, Old Winery, El Pueblo Gallery, and surface Parking Lot 3. Parking Lot 5 in El Pueblo is currently being used as the site of a temporary homeless shelter operated

by the City of Los Angeles. El Pueblo includes a mix of adobe buildings, large Victorian commercial blocks, and Spanish Revival style buildings (El Pueblo, 2022a). The low- and mid-rise buildings along Olvera Street face inward, toward each other, rather than outward toward Alameda Street and the proposed station location.

Other visible uses in this LU include the El Monte Busway entrance, the three-story First 5 LA office building, surface parking associated with LAUS, and the Mozaic Apartments complex. The Mozaic Apartments are adjacent and north of LAUS, on the southern side of Cesar E. Chavez Avenue. The five-story complex includes residential apartment windows that face Alameda Street.

The primary viewers in LU-1 consist of motorists, pedestrians, residents, LAUS patrons, and El Pueblo tourists. Under the L.A. CEQA Thresholds Guide (2006), visual impacts are assessed based on changes to views from publicly accessible locations or public views. Therefore, any references to and analysis of residential views and resident viewer groups, which are assumed to be associated with private residential properties, are provided only for informational purposes, because the L.A. CEQA Thresholds Guide (2006) does not protect private views from residential properties.

Alameda Street has six travel lanes, and trees along the public sidewalk adjacent to a majority of El Pueblo on the western side of Alameda Street. In addition, landscaping provided in the Mozaic Apartments, El Pueblo, and LAUS properties are visible. A mix of typical roadway lighting and decorative pedestrian-level lighting is provided. There are south-facing views of some downtown Los Angeles multi-story buildings, including City Hall, as well as east/southeast-facing views of multi-story buildings, including the Metro Headquarters Building (One Gateway Plaza). There is a distant north-facing view of the Elysian Hills. The most prominent views are of LAUS and El Pueblo. The existing visual quality of LU-1 is moderately high due to the presence of these two historic landmarks.

Landscape Unit 1	*Vividness*	*Intactness*	*Unity*	*Visual Quality*
	High	Moderate	Moderate	Moderately High

4.2.2 Landscape Unit 2 – Cesar E. Chavez Avenue to Alpine Street

Landscape Unit 2 (LU-2) begins on the northern side of Cesar E. Chavez Avenue and continues north along Alameda Street to the southern side of Alpine Street. LU-2 is characterized by a mix of commercial, institutional, open space, and other uses. The United States Post Office Terminal Annex building, on the northeastern corner of Cesar E. Chavez Avenue approximately 185 feet east of Alameda Street. The United States Post Office Terminal Annex building, constructed in 1938, is a historic landmark due to its architecture, urban design impact on the surrounding area, and its lobby murals. The architectural style includes an eclectic mix of Mission and Spanish Colonial Revival, with elements of Pueblo and Islamic (NPS, 1985). Tall palm trees frame both sides of the main building entrance on the western façade, which faces Alameda Street.

Philippe the Original is at the northwestern corner of Alameda and Ord Streets, and was constructed in 1925. Previously, a machine shop with a hotel on the second floor, the building has served as the longtime location of Philippe the Original, or Philippe's restaurant, since 1951. Philippe the Original is a historical resource and was identified as eligible for listing in national, State, and local registers in a historic resources survey. For more information on the United States

Post Office Terminal Annex and Philippe the Original buildings, see the Historical Resource Technical Report (Appendix G) prepared for the proposed Project.

Other visible uses in this LU include a gas station, the four-story Metro Plaza Hotel, The California Endowment complex of modern buildings of one to four stories, small-scale and older commercial businesses and restaurants, Alameda Triangle, a City ROW that contains landscaping and hardscaping (Figure 4-7), a large industrial complex of up to three stories that houses auto repair and fleet services, and undeveloped land.



Figure 4-7: Existing View of Alameda Triangle Looking North from Alameda Street

The primary viewers in LU-2 consist of motorists and pedestrians. Alameda Street has five to six travel lanes in this LU, with small to mature trees along the public sidewalk on both sides of the street from Main Street (just south of Alameda Triangle) north to Alpine Street. Additional trees and landscaping are visible adjacent to the Alameda Street public ROW on the properties of the United States Post Office Terminal Annex, The California Endowment, and the Alameda Triangle. A mix of typical roadway lighting, decorative roadway lighting, and decorative pedestrian-level lighting is provided. There is a south-facing view of some downtown Los Angeles multi-story buildings, including City Hall. There are interrupted and distant north-facing views of the Elysian Hills, as well as the San Gabriel Mountains to the northeast (specifically when viewing northeast along Main Street from Alameda Street). In addition, the elevated Metro L Line (Gold) structure and the multi-story Metro at Chinatown Senior Lofts building at the northwestern corner of

Alameda Street and Alpine Street are visible from the northern portion of LU-2. Overhead power transmission lines and poles are along portions of the western side of Alameda Street in this LU.

The most prominent views are of the modern buildings and aesthetically pleasing landscaping visible as part of The California Endowment, and secondarily the historic United States Post Office Terminal Annex building accentuated by palm trees. However, there are also elements in this LU that have an older visual impression. Therefore, the existing visual quality of LU-2 is moderately low.

	Vividness	*Intactness*	*Unity*	*Visual Quality*
Landscape Unit 2	Moderate	Low	Low	Moderately Low

4.2.3 Landscape Unit 3 – Alpine Street to Southwestern Corner of Los Angeles State Historic Park

Landscape Unit 3 (LU-3) begins on the northern side of Alpine Street and continues north along Alameda Street to the southwestern corner of Los Angeles State Historic Park, approximately 535 feet north of College Street. Starting on the northern side of College Street, Alameda Street becomes Spring Street. LU-3 is characterized by a mix of multi-family residential, commercial, industrial, parking, and transit uses, as well as undeveloped land.

Visible uses within this LU include the 7- to 10-story Metro at Chinatown Senior Lofts building (Figure 4-8), an older three-story mixed use building, including commercial/restaurant on the ground floor and multi-family residential above, two-story Homeboy Bakery/Homegirl Café, a large area of school bus parking, the elevated Metro L Line (Gold) Chinatown Station and tracks, five- to six-story Blossom Plaza multi-family residential complex, historic Capitol Milling Company Building, which has recently been adapted into office and restaurant spaces, and a large vacant parcel. The elevated Metro L Line (Gold) Chinatown Station includes architecture and roof features consistent with traditional Chinese architecture found in the adjacent Chinatown community. The elevated Metro L Line (Gold) light rail guideway crosses over Alameda Street just north of Alpine Street, and then travels along the western side of Alameda Street/Spring Street. A large concrete column, which supports the existing elevated guideway, is in the center of the roadway approximately 200 feet north of Alpine Street.

The primary viewers in LU-3 consist of motorists, residents, pedestrians, and transit commuters. As previously mentioned, visual impacts under the L.A. CEQA Thresholds Guide (2006) are assessed based on changes to public views. Therefore, description of resident viewer groups is provided only for informational purposes, as the L.A. CEQA Thresholds Guide (2006) does not protect private views from residential properties.

Alameda Street/Spring Street provides five to six travel lanes in this LU, with small trees along the public sidewalk on both sides of the street throughout the LU, except for the sidewalk adjacent to the Metro L Line (Gold) Chinatown Station. Additional small trees and shrubs are occasionally visible adjacent to the Alameda Street/Spring Street public ROW on the private properties. A mix of typical roadway lighting, decorative roadway lighting, and decorative pedestrian-level lighting is provided. In addition, security lighting is provided at the elevated Metro L Line (Gold) Chinatown Station and tracks. There is a south-facing view of some downtown Los Angeles multi-story buildings, including the Metro Headquarters Building (One Gateway Plaza). There are interrupted and distant north-facing views of the Elysian Hills and a small portion of the San Gabriel

Mountains. In addition, the elevated Metro L Line (Gold) tracks and landscaping associated with Los Angeles State Historic Park are visible from the northern portion of LU-3. Overhead power transmission lines and poles along North Broadway to the west, and along Main Street to the east, are visible from portions of this LU. In addition, the overhead catenary wire system associated with the operation of the Metro L Line (Gold) are visible on the elevated structure.

The most prominent views are of the elevated Metro L Line (Gold) Chinatown Station and tracks. The existing visual quality of LU-3 is low due to the lack of visual resources and the interruption of views due to the elevated Metro L Line (Gold) Station and structure above portions of Alameda Street/Spring Street.



Figure 4-8: Existing View of Metro Gold Line Chinatown Station Looking North along Alameda Street

Landscape Unit 3	*Vividness*	*Intactness*	*Unity*	*Visual Quality*
	Low	Low	Low	Low

4.2.4 Landscape Unit 4 – Southwestern Corner of Los Angeles State Historic Park to North Broadway

Landscape Unit 4 (LU-4) begins at the southwestern corner of Los Angeles State Historic Park, approximately 535 feet north of College Street, northwest to North Broadway. This LU also includes Spring Street from the southwestern corner of Los Angeles State Historic Park to the northern portion of the park adjacent to North Broadway. Other than Los Angeles State Historic Park, LU-4 is characterized by a mix of commercial/office, industrial, institutional, and transit uses, as well as undeveloped land. LU-4 is also characterized by park/open space, including Los Angeles State Historic Park (Figure 4-9), which is a 32-acre State of California Park that was the site of the historic River Station Area operated by the Southern Pacific Railroad in the 1890s (Los Angeles State Historic Park 2020). Visual features of the park in LU-4 include an exposed area of the brick-encased Zanja Madre, which is the historic earthen-walled ditch that originally carried water from the Los Angeles River to El Pueblo (Los Angeles State Historic Park, 2020). Currently, a 14-foot-wide elevated walkway with observation deck, known as the Roundhouse, traces the perimeter of the historic River Station Roundhouse site. In addition, visible features of the park also includes numerous walkways, mature trees, unique hardscape features, the “Cargo Snack Shack,” the flagpole, and a welcome/visitor’s center. More distant views of the Elysian Hills to the west/northwest, the San Gabriel Mountains to the north, and downtown Los Angeles to the southwest are available in LU-4.



Figure 4-9: Existing View of Los Angeles State Historic Park Looking North from the Southern Entrance along Spring Street

Other visible uses in this LU includes one- to two-story commercial/office and industrial uses on the southeastern side of Spring Street, across Spring Street and to the southeast of Los Angeles State Historic Park. The Metro L Line (Gold) light rail tracks are at-grade adjacent and north/northwest of Los Angeles State Historic Park. North Broadway is elevated, and directly north/northwest of the Metro L Line (Gold) tracks and Los Angeles State Historic Park. A slope separates the Metro L Line (Gold) tracks from North Broadway, and consists of a vacant strip of land that is lightly vegetated and contains two billboards.

The primary viewers in LU-4 consist of motorists, residents, pedestrians, transit commuters, and recreationalists. As previously mentioned, visual impacts under the L.A. CEQA Thresholds Guide (2006) are assessed based on changes to public views. Therefore, description of resident viewer groups is provided only for informational purposes, because the L.A. CEQA Thresholds Guide (2006) does not protect private views from residential properties.

Spring Street provides four to five travel lanes in this LU, with small trees located periodically along the public sidewalk on the southeastern side of the street throughout the LU. Numerous additional small- and medium-sized trees and shrubs and grassy areas are visible adjacent to Spring Street public ROW in Los Angeles State Historic Park. A mix of typical roadway lighting and decorative roadway lighting is provided. In addition, security lighting is provided at Los Angeles State Historic Park, as well as the other private properties in the LU. There is a south-facing view of some downtown Los Angeles multi-story buildings, including the Metro Headquarters Building (One Gateway Plaza) and the downtown skyline, as well as the elevated Metro L Line (Gold) Chinatown Station. There are northwest-looking views of the Elysian Hills and the existing buildings along the elevated North Broadway. A small portion of the San Gabriel Mountains is visible viewing to the north. Overhead power transmission lines and poles along the southeastern side of Spring Street are visible from portions of this LU. A tall tower is visible to the northwest, which is on top of Elysian Park Radio Hill in the Elysian Hills. The tower includes an antenna clearly visible in the area. In addition, the overhead catenary wire system associated with the operation of the Metro L Line (Gold) is visible transitioning from elevated to at-grade.

The most prominent views are of Los Angeles State Historic Park and associated landscaping and hardscape features, as well as the views of downtown Los Angeles looking south from Los Angeles State Historic Park. Secondary in prominence is the view from the park and Spring Street of Elysian Hills and the buildings/uses along North Broadway, which is elevated above the grade of the park. Although noticeable, the features in this view are inconsistent visually, and the view is somewhat cluttered. However, views from Los Angeles State Historic Park towards the surrounding existing urban landscape exhibit various visual values. The existing visual quality of LU-4 is moderately low, because although the park landscaping and view of downtown are aesthetically pleasing, and present a broad view of the historical development of downtown Los Angeles, the area outside of the park lacks visual quality and is inconsistent with the features of the park.

Landscape Unit 4	*Vividness*	*Intactness*	*Unity*	*Visual Quality*
	Moderate	Low	Low	Moderately Low

4.2.5 Landscape Unit 5 – North Broadway to SR-110

Landscape Unit 5 (LU-5) begins on the southeastern side of North Broadway, which is at a slightly higher elevation than the Metro L Line (Gold) tracks, and Los Angeles State Historic Park directly to the southeast. LU-5 is characterized by a mix of commercial/office, institutional, single- and multi-family residential, open space uses, as well as undeveloped land, that is not visually memorable.

North Broadway includes commercial, office, and some residential uses, as well as overhead power transmission lines and poles and visible billboards. Other visible uses in this LU include Cathedral High School, which has one- to two-story brick buildings, modern and industrial looking office space (one-story) (Figure 4-10), older one- to two-story single- and multi-family residential buildings, Radio Hill Gardens and Elysian Park open space, and the eastern boundary of SR-110. Some of the buildings are well-kept and have historic features, such as the buildings on the western side of Bishops Road as part of Cathedral High School, as well as St. Peter's Italian Catholic Church on the northern side of North Broadway, just northeast of Cottage Home Street. Other buildings are older, some of which have security bars on some windows, such as certain residential structures along Savoy Street. However, there are two historic residential structures also along Savoy Street (437 and 451 East Savoy Street).

The primary viewers in LU-5 consist of motorists, residents, pedestrians, and patrons of the nearby school. As previously mentioned, visual impacts under the L.A. CEQA Thresholds Guide (2006) are assessed based on changes to public views. As such, description of resident viewer groups is provided only for informational purposes, because the L.A. CEQA Thresholds Guide (2006) does not protect private views from residential properties.

North Broadway has four travel lanes in this LU, with small trees located periodically along the public sidewalk on the northwestern side of the street throughout the LU. Bishops Road provides two travel lanes, and does not provide trees in the public sidewalk. Trees and other landscaping are visible periodically in private properties. Along Bishops Road, there are several mature trees, shrubs, and other landscaping visible on the school property adjacent to the public sidewalk on the western side of the street. From the northern portion of Bishops Road, where the street transitions to Cottage Home Street adjacent to SR-110, views to the northeast include the open space area of Radio Hill Gardens, which includes numerous mature trees, grass, and other vegetation. A tall tower is visible in Radio Hill Gardens, which is on top of Elysian Park Radio Hill in the Elysian Hills. The tower includes an antenna clearly visible in the area.

A mix of typical roadway lighting and decorative pedestrian-level lighting is provided along North Broadway. Only typical roadway lighting is provided on Bishops Road and Savoy Street. High-poled sports field lighting is visible on the Cathedral High School campus, particularly when viewing the campus from North Broadway. In addition, security lighting is provided at Cathedral High School on the buildings that front onto Bishops Road. There is an interrupted south/southwest-facing view of the downtown Los Angeles skyline, including the Metro Headquarters Building (One Gateway Plaza) and City Hall from North Broadway. Also, from North Broadway, there is a south/southeast-facing view of the Los Angeles State Historic Park and Roundhouse, which are down-slope from North Broadway. Views from North Broadway to the north include the Elysian Hills, and to the west also include Elysian Hills and the top of the Dodger Stadium high-poled sports field lighting. Overhead power transmission lines and poles are along the northwestern side of North Broadway, and on the eastern side of Bishops Road. Billboards and other signage are also visible along the southern side of North Broadway. Further along Bishops Road to the north, the Arroyo Seco Parkway/SR-110 on- and off-ramps are also visible.



Figure 4-10: Existing View Looking Northwest Towards Bishops Road from North Broadway

The most prominent views are of the downtown Los Angeles skyline from along North Broadway. Secondary in prominence are views from North Broadway looking down into Los Angeles State Historic Park and the associated elevated Roundhouse. Although these views are aesthetically pleasing, the existing visual quality of LU-5 is moderately low because it includes numerous visual interruptions, as well as intervening development, billboards, and overhead power lines/poles that impact the quality of the downtown views.

	Vividness	*Intactness*	*Unity*	*Visual Quality*
Landscape Unit 5	Moderate	Low	Low	Moderately Low

4.2.6 Landscape Unit 6 – SR-110 to Dodger Stadium

Landscape Unit 6 (LU-6) begins on the eastern boundary of the northbound SR-110/Arroyo Seco Parkway. The northbound Arroyo Seco Parkway in this area is slightly upslope as compared to the area in LU-5 discussed above. The southbound side of the freeway (to the west) is separated and upslope from the northbound side. Dodger Stadium is at a higher elevation than the freeway and is atop the Elysian Hills in an area locally known as Chavez Ravine. The community of Solano

Canyon, an area of single- and multi-family residences, is in a canyon primarily along Solano Avenue in the Elysian Hills, which is traversed by SR-110. LU-6 is characterized by transportation/public facility uses, residential, and open space uses.

The Arroyo Seco Parkway and Dodger Stadium in this LU are visually memorable. As previously discussed, the Arroyo Seco Parkway in the Project area is a designated National Scenic Byway and California Historic Parkway. The freeway was constructed in phases and was considered both a scenic parkway and a high-speed, limited-access freeway (NPS, 1985). The freeway has three to four travel lanes in each direction and is known for its views of the downtown Los Angeles skyline from the southbound direction. Dodger Stadium was completed in 1962, and is considered to have a Mid-Century Modern architectural style (Los Angeles Conservancy, 2020a).

The primary viewers in LU-6 consist of motorists, residents, pedestrians, and patrons of the Dodger Stadium. As previously mentioned, visual impacts under the L.A. CEQA Thresholds Guide (2006) are assessed based on changes to public views. Therefore, description of resident viewer groups is provided only for informational purposes, as the L.A. CEQA Thresholds Guide (2006) does not protect private views from residential properties.

Trees and other vegetation are visible adjacent to the southbound and northbound Arroyo Seco Parkway, as well as in the area surrounding the large Dodger Stadium parking areas that are on all sides of the stadium (Figure 4-11). There are south/southeast-facing views of the downtown Los Angeles skyline from the southbound Arroyo Seco Parkway. The north-facing view along the northbound Arroyo Seco Parkway includes mature trees on both sides of the freeway, as well as the tall antenna tower atop Elysian Park Radio Hill in the Elysian Hills. Due to the topography of Elysian Hills, views from within the community of Solano Canyon are primarily blocked.

A mix of typical roadway lighting and decorative roadway lighting is provided on both sides of the Arroyo Seco Parkway. Dodger Stadium includes a large amount of standard parking lot lighting in the vast parking areas adjacent to the stadium. The stadium includes high-poled sports field lighting that is specified to be bright enough for sports television filming standards. Some graffiti is visible on walls bordering the Arroyo Seco Parkway.

The most prominent views are of the downtown Los Angeles skyline from the southbound Arroyo Seco Parkway. The existing visual quality of LU-6 is moderate due to the interruption of views, including the view of downtown, as well as the memorable quality of Dodger Stadium.

Landscape Unit 6	*Vividness*	*Intactness*	*Unity*	*Visual Quality*
	Moderate	Low	Moderate	Moderate



Figure 4-11: Existing View of Dodger Stadium Parking Lot

4.2.7 Summary of Existing Visual Quality of Landscape Units

Although the Project alignment is not a designated or proposed scenic corridor, it offers motorists, pedestrians, and recreationalists (including tourists) fleeting and periodic views of the San Gabriel Mountains to the north/northeast, downtown Los Angeles skyline to the south/southeast, and Elysian Hills to the west/northwest. The historic Los Angeles Union Station Passenger Terminal and El Pueblo both provide memorable views of these landmarks to all viewer groups. The LAUS, El Pueblo, U.S. Post Office Annex building, The California Endowment complex, Capital Milling Company building facades, Los Angeles State Historic Park, Cathedral High School buildings, and St. Peter's Italian Catholic Church are noticeable from a visual and landscape perspective. However, views of landmarks and visually noticeable features throughout portions of the Project alignment are interrupted or obscured by transmission and power lines, billboards, and intervening development. Most of the elements along the Project alignment are typical of an urban environment, which results in an overall visual quality classification of moderate when combining all three visual quality criteria. Table 4-2 summarizes the existing visual quality of the LUs, using a low, moderate, or high ranking based on the FHWA's three visual assessment components (vividness, intactness, and unity), as described in Section 3.3.3.2, Visual Quality.

Table 4-2. Summary of Visual Quality of the Project Alignment

Landscape Unit	Visual Features	Vividness	Intactness	Unity	Visual Quality
LU-1	Landmarks LAUS and El Pueblo (including Olvera Street, Father Serra Park, Placita de Dolores, and Avila Adobe)	High	Moderate	Moderate	Moderately High
LU-2	Landmark United States Post Office Terminal Annex building, as well as The California Endowment landscaping and Alameda Triangle; overhead power lines and poles, undeveloped land	Moderate	Low	Low	Moderately Low
LU-3	Capitol Milling Company building, elevated Metro L Line (Gold) Chinatown Station and tracks, as well as concrete support column in the center of street; overhead power lines and poles, undeveloped land	Low	Low	Low	Low
LU-4	Los Angeles State Historic Park landscaping and views of downtown Los Angeles skyline, view of Elysian Hills and North Broadway buildings, overhead power lines, undeveloped land	Moderate	Low	Low	Moderately Low
LU-5	Los Angeles State Historic Park landscaping and elevated Roundhouse, views of downtown Los Angeles skyline, Radio Hill Gardens tower and antenna, overhead power lines	Moderate	Low	Low	Moderately Low
LU-6	Scenic Arroyo Seco Parkway (SR-110), Dodger Stadium, numerous trees and other vegetation, graffiti	Moderate	Low	Moderate	Moderate

5.0 ENVIRONMENTAL IMPACTS

The potential for the proposed Project to result in visual character, scenic vistas, scenic resources, light and glare, and shading impacts during the construction and operational phases are discussed below.

5.1 Proposed Project

5.1.1 Construction Impacts

The proposed Project alignment consists of a portion of the public ROW, including roadway and sidewalks, as well as City-owned, State-owned, and private properties. Trees also exist in the public ROW of Alameda Street, Spring Street, North Broadway, and other streets adjacent to the proposed Project alignment. During the construction phase, the visual character of the alignment would change temporarily from existing conditions. Construction activities would require equipment such as construction barriers and sound walls, cranes, and other appurtenances that would be visible during much of the approximately 25-month construction period, which could begin as early as 2024. Construction activities would include similar equipment to other construction projects in the City, such as high-rise buildings in nearby Chinatown and the CASP. Certain areas may be fenced off with construction barriers and sound walls, resulting in a contrast and change in visual character from the existing conditions. The construction barriers and sound walls would include a privacy screen. In addition, the designated construction areas along the alignment would experience additional truck traffic compared to existing conditions, with trucks moving materials on- and off-site, and work crews and construction equipment moving around the sites and between the Project components.

Views that are considered scenic to certain viewers, such as those of the downtown Los Angeles skyline, LAUS, El Pueblo, Los Angeles State Historic Park, Arroyo Seco Parkway, Dodger Stadium, or the San Gabriel and San Bernardino Mountains may temporarily change due to the presence of construction activities. However, there are no designated scenic vistas present in the API. In addition, no State- or County-designated scenic highways or eligible State scenic highways are in the Project area. Therefore, scenic vistas and scenic resources would not be impacted during construction.

Some residents may have private views of the Project construction from their windows. Although residents would be highly sensitive to visual changes and would have a higher degree of personal investment in the Project, as previously mentioned, visual impacts under the L.A. CEQA Thresholds Guide (2006) are assessed based on changes to public views. Therefore, any references to and analysis of residential views and resident viewer groups, which are assumed to be associated with private residential properties, are provided only for informational purposes, because the L.A. CEQA Thresholds Guide (2006) does not protect private views from residential properties.

Motorists would primarily experience fleeting views of construction activities while driving along the roadways along and adjacent to the proposed Project alignment. In addition, drivers would have views while idling at the various traffic signals surrounding the alignment. The change in the visual character of the alignment during the construction phase would be noticeable by passing drivers. However, drivers are considered to have a low sensitivity to any visual changes, because they are likely passing through the API to reach their destinations, and do not necessarily have a personal investment in the visual character or quality of the API.

Pedestrians would primarily experience views of construction activities while walking along public sidewalks, in transit stations, and near businesses adjacent to the proposed Project alignment. Pedestrians would experience changes to views of the downtown Los Angeles skyline, LAUS, El Pueblo, and Los Angeles State Historic Park. The change in the visual character of the alignment during the construction phase would be noticeable by these viewers. However, pedestrians are considered to have a moderate sensitivity to visual changes, because they may be engaged in observing their surroundings.

Recreationalists would similarly experience views of construction while bicycling or visiting parks or recreational facilities such as Los Angeles State Historic Park, Los Angeles Plaza Park (Father Serra Park), Placita de Dolores, Elysian Park, and Radio Hill Gardens along or nearby the Project alignment. Recreationalists are considered to have high sensitivity to visual changes. Views from recreationalists in Elysian Park may experience minor changes to views of Dodger Stadium, but this would be only minimally noticeable because of the distant aspect of that view and the presence of vegetation. In addition, certain southwest-facing views of the downtown Los Angeles skyline from the Los Angeles Historic Park would be partially interrupted during construction. Construction of the proposed Chinatown/State Park Station, Broadway Junction, cables, and cabins would represent new visual elements for recreationalists who seek to enjoy the large open space area and views of the downtown Los Angeles skyline. However, the cables have similar characteristics to the overhead power lines that are prevalent in views in this area. Therefore, the installation of proposed cables would not significantly impact views in this area.

The following best management practices would be implemented during construction as feasible: visually obtrusive erosion-control devices, such as silt fences, plastic ground cover, and straw bales, should be removed as soon as the area is stabilized; stockpile areas would be neatly organized and covered with plastic depending on weather events; whenever possible, stockpiled areas should be in less visibly sensitive areas. Details regarding the implementation of best management practices for the proposed Project are discussed further in Section 3.10, Hydrology and Water Quality.

Overall, construction activities would represent a temporary change in the visual quality and character of the API, similar to other construction projects in the City. Project components would potentially stand out as memorable or remarkable features in the landscape due to their scale, which would have a temporary impact on visual character and quality of the API and its surroundings compared to existing conditions. However, impacts from construction activities would be temporary, and post-construction views of Project-related construction activities, equipment, stockpiles, and fencing would be removed once construction is completed. Therefore, construction visual impacts would be less than significant.

5.1.1.1 Light and Glare

Construction activities would primarily occur during daytime hours. Some activities may require work outside of daytime hours (e.g., concrete pours, activities to close street lanes). If limited construction activities occur outside of daytime hours, lighting would be directed toward the construction areas, and minimal spillover lighting is anticipated. Construction would result in additional lighting at staging and station, junction, and tower construction areas. This would require sufficient lighting for construction crews; however, the lighting equipment would be hooded and shielded to minimize spillover effects and glare. Construction would not significantly increase the ambient light levels in the vicinity because construction duration would be short and temporary, would be confined to localized sites, and would not constitute a substantial source of light or glare.

5.1.1.2 Shading

Construction has the potential to temporarily alter shading in the API because construction activities would introduce heavy equipment (i.e., cranes, bulldozers, scrapers, and trucks). With the exception of cranes, construction equipment, trucks, and related elements visible during the construction phase would only temporarily cast minimal shadows, because a majority of this equipment does not have significant height and mass. Overall, any shading that would occur as a result of construction activities would be temporary and intermittent for an approximately 25-month period. Therefore, the potential for construction activities to result in shading and shadows would be minimal; impacts from construction would be less than significant.

5.1.2 Operational Impacts

The following analysis provides a LU-by-LU discussion of potential visual impacts associated with introduction and operation of the proposed Project. Discussion of the selected KOPs are included in the analysis of each LU. Figures showing the existing and proposed (or simulated) views of the proposed Project are included for each KOP in Appendix A. The proposed Project components shown in the visual simulations in this report should be considered conceptual only for environmental analysis purposes, and are pending the final design process.

5.1.2.1 Landscape Unit 1 – Arcadia Street to Cesar E. Chavez Avenue

In LU-1, the proposed Alameda Station would be constructed over Alameda Street between Los Angeles Street and Cesar E. Chavez Avenue, adjacent to El Pueblo and the planned LAUS Forecourt. From the Alameda Station to the northern extent of LU-1 at Cesar E. Chavez Avenue, the proposed Project would remain in the public ROW. As detailed in Section 2.0, Project Description, the Alameda Station would be approximately 173 feet long, 109 feet wide, and 78 feet high at its tallest point, with the passenger loading platform approximately 31 feet above Alameda Street. Queueing would occur at the LAUS Forecourt and new pedestrian plaza at El Pueblo, with ticketing/fare checking in the station.

KOP 1

KOP 1 (Figure 5-1 in Appendix A) shows the existing viewpoint from the perspective of a pedestrian, motorist, or El Pueblo tourist looking east towards Alameda Street and LAUS from Los Angeles Street, adjacent to El Pueblo. The public ROW, including decorative lighting, palm trees, bushes, and other landscaping are visible in the foreground. Visible in the middleground is Alameda Street and the several rows of tall palm trees and other landscaping that accents the front of the historic LAUS. Visible in the background is the LAUS building, including the entrance and clock tower, as well as the high-rise Metro Headquarters Building (One Gateway Plaza).

KOP 1 (Figure 5-1 in Appendix A) also shows a pedestrian, motorist, or El Pueblo tourist looking east towards Alameda Street and LAUS from Los Angeles Street, adjacent to El Pueblo, with the visual simulation of the proposed Project. The proposed Alameda Station is northeast from the KOP, in the Alameda Street ROW (to the left). As the simulation illustrates, the proposed Alameda Station would not be visible from this view. Therefore, there would be no noticeable visual change from this viewpoint, and existing views of LAUS from this portion of El Pueblo would not be blocked, diminished, or interrupted.

KOP 2

KOP 2 (Figure 5-2 in Appendix A) shows the existing view of a motorist traveling northbound along Alameda Street from just north of Arcadia Street. LAUS and associated tall palm trees are prominently visible on the right. Visible on the left is Father Serra Park (El Pueblo), including a grassy area, mature trees, and other landscaping. Distant views of the Mozaic Apartments, El Pueblo buildings, and other development are visible in the background.

KOP 2 (Figure 5-2 in Appendix A) also shows this motorist view looking north along Alameda Street with the visual simulation of the proposed Project. In the simulated view, the proposed Alameda Station is visible in the center and middleground of the view. The rounded shape and massing of the new station are noticeable visual changes to the view, which includes the historic LAUS on the right. The height of the new station, although a visible change, appears consistent with the height of certain El Pueblo buildings on the left, as well as existing LAUS palm trees and Mozaic Apartments on the right. The new station blocks views looking north as compared to the existing (before) view. However, no significant or memorable views are impacted.

KOP 3

KOP 3 (Figure 5-3 in Appendix A) shows the existing viewpoint from the perspective of a pedestrian or El Pueblo tourist looking northeast towards Alameda Street from the northwestern corner of Alameda Street and Los Angeles Street at Placita de Dolores in El Pueblo. KOP 3 is several feet above street level at the top of the approximately one-flight stairway leading to the primary area of Placita de Dolores (plaza). The gated plaza, including a colorfully vegetated round trellis structure, is prominently visible in the foreground of the view. The middleground includes the Alameda Street roadway and public sidewalks, as well as palm trees, small trees, and other vegetation adjacent to the plaza and on the eastern side of the street adjacent to LAUS. A decorative pedestrian light pole is visible adjacent to the plaza stairway entrance. The Mozaic Apartments and associated tall palm trees are visible in the background on the right. In addition, the tops of two tall flag poles are visible in the background of the view on the left.

KOP 3 (Figure 5-3 in Appendix A) also shows a pedestrian or El Pueblo tourist view looking northeast towards Alameda Street with the visual simulation of the proposed Project. In the simulated view, the gated and landscaped plaza remain a prominent visible feature in the foreground view. The rounded shape of the proposed Alameda Station's overhead canopy, which is 78 feet high at its tallest point, is taller than adjacent structures, and represents a noticeable visual change in the background of the view. The new station platforms and circulation features are blocked from view by the street trees on the western side of Alameda Street, as well as small trees and vegetation in Placita de Dolores; however, the station canopy is visible. The architectural style of the station was designed to complement the existing buildings and other structures in the El Pueblo and Olvera Street area. From this view, the height of the station canopy appears to surpass all other structures and vegetation in this view. However, the station does not block views of any prominent visual resources. Removal of vegetation or trees is not evident in the simulated view from KOP 3.

KOP 4

KOP 4 (Figure 5-4 in Appendix A) shows the existing viewpoint from the perspective of an LAUS patron looking northwest towards Alameda Street from an interior sidewalk adjacent to the surface parking lot (Parking Lot B) in LAUS. Parked vehicles in the surface parking lot and various signage are prominently visible in the foreground of the view. Existing small trees are interspersed in the

surface parking lot (Parking Lot B). The Mozaic Apartments and its associated palm trees are visible in the foreground of the view on the left and right, respectively. Surface parking light poles are evident in the parking lot. Visible in the background of the view are limited views of portions of historic El Pueblo, including the 3- to 4-story building housing El Pueblo Offices, the Avila Adobe, and adjacent landscaping and trees. However, the view of these buildings is substantially obscured by the trees in the LAUS surface parking lot. The historic red brick Plaza Substation building is completely blocked in this view by existing trees.

KOP 4 (Figure 5-4 in Appendix A) also shows this LAUS patron view looking northwest towards Alameda Street with the visual simulation of the proposed Project. In the simulated view, the proposed Alameda Station and planned LAUS Forecourt are prominent features. The rounded shaping of the station's overhead canopy and the mass of the new station are noticeable visual changes to the view. The architectural style of the station was designed to complement the existing buildings and other structures in the El Pueblo and Olvera Street area. The elevated platform level of the station appears soft and rounded. The planned LAUS Forecourt includes a plaza area with seating and landscaping, replacing the surface parking lot. The surface parking lot trees and street trees along the eastern side of Alameda Street would be removed; however, replanting of trees would occur as part of Metro's Esplanade and Forecourt Project.

KOP 5

KOP 5 (Figure 5-5 in Appendix A) shows the existing viewpoint from the perspective of a pedestrian, including an El Pueblo or Olvera Street tourist, looking northeast towards Alameda Street. The public sidewalk, landscaping, electrical equipment, a decorative light pole, and the tan brick Avila Adobe building are visible in the foreground. Visible in the middleground is a white Spanish-style building, which includes an entrance to Olvera Street, vehicle parking, street trees including a palm tree, as well as Alameda Street. The Mozaic Apartments, with adjacent tall palm trees and other landscaping, the high-rise Metro Headquarters Building (One Gateway Plaza), and a small portion of the LAUS building are visible across Alameda Street.

KOP 5 (Figure 5-5 in Appendix A) also shows this pedestrian and El Pueblo or Olvera Street tourist view looking northeast towards Alameda Street with the visual simulation of the proposed Project, including the proposed pedestrian plaza and Alameda Station. In the simulated view, the western portion of the proposed Alameda Station, including pedestrian circulation elements and a concrete station column, are the prominent features in the view. The art features on the underside of the platform, the gondola cables, and the mass of the new station are prominent visual changes to the view. In addition, although the height of the station, which is 78 feet high at its tallest point, and cables appear taller than the existing structures in the view, they appear to fit visually in this highly urban environment. The architectural style of the proposed Alameda Station is not as evident from this viewpoint. The pedestrian plaza would include the installation of landscaping and hardscape. Although not a part of the proposed Project, the simulated view also shows the opportunity for El Pueblo to use portions of the pedestrian plaza for amenities similar to Olvera Street, including small vendors and colorful décor. Although the proposed Project would alter views of portions of the Mozaic Apartments and Metro Headquarters Building (One Gateway Plaza), the station does not block views of any prominent visual resources, and the El Pueblo buildings would remain visible from this viewpoint.

KOP 6

KOP 6 (Figure 5-6 in Appendix A) shows the existing viewpoint from the perspective of a pedestrian or El Pueblo tourist looking east towards Alameda Street and LAUS from inside

El Pueblo's historic Avila Abode, as well as the outdoor courtyard area on the western side of Alameda Street. The natural dirt ground of the Avila Adobe courtyard, as well as several fruit trees, other trees, shrubs, and vines, are prominently visible in the foreground of the view. Visible in the middleground is a portion of the historic red brick Plaza Substation building on the right, one large palm tree, and two tall flag poles on the western side of Alameda Street. Visible in the background is the top floor of the Mozaic Apartments building on the left, the high-rise Metro Headquarters Building (One Gateway Plaza) and the dark-red tiled roof of LAUS in the center, and the top floors of the multi-story Metropolitan Water District building on the right. From this viewpoint, the LAUS clock tower is blocked by a large palm tree on the western side of Alameda Street. In addition, the tops of the tall palm trees associated with the LAUS and Mozaic Apartments properties are visible in the background of the view.

KOP 6 (Figure 5-6 in Appendix A) also shows a pedestrian or El Pueblo tourist view looking east towards Alameda Street and LAUS from inside El Pueblo's historic Avila Abode, as well as the outdoor courtyard area with the visual simulation of the proposed Project. Similar to existing conditions, the natural dirt ground of the Avila Adobe courtyard, as well as several fruit trees, other trees, shrubs, and vines, remain prominently visible in the foreground of the view. The rounded Alameda Station canopy appears to be folded in this view, and represents a prominent visual change in the middleground of the view. The station canopy, which is 78 feet high at its tallest point, blocks the view of the Mozaic Apartments and Metro Headquarters Building; however, views to LAUS and the Metropolitan Water District building in the background would remain intact. Other than the massing of the canopy structure, the architectural style does not contrast drastically with the Avila Adobe and the red brick Plaza Substation building. The station canopy does not block the view of the top of LAUS, but does introduce a new visual element in the view that has a larger mass and scale than existing features of the visual setting.

KOP 7a

KOP 7a (Figure 5-7 in Appendix A) shows the existing viewpoint from the perspective of a pedestrian or El Pueblo tourist looking southeast towards Alameda Street from inside El Pueblo's Olvera Street marketplace at approximately the southwestern corner of Alameda Street and Cesar E. Chavez Avenue. Prominent in the foreground is a mature tree surrounded by a short wall on the right and top of the view. Visible in the middleground are low-scale restaurants and shops in the colorful and vibrant theme associated with the Olvera Street marketplace. In the background, portions of a large palm tree, the Mozaic Apartments, a light pole, other El Pueblo development, and the distant Metropolitan Water District building are visible.

KOP 7a (Figure 5-7 in Appendix A) also shows this pedestrian or El Pueblo tourist view looking southeast towards Alameda Street with the visual simulation of the proposed Project. In the simulated view, the proposed Alameda Station canopy and cables are visible in the background of the view, in the center and on the left. The rounded shaping of the station's overhead canopy is a visual contrast to the existing view. The architectural style of the station is reminiscent of some styles of buildings and other structures near El Pueblo. The Alameda Station's platform and canopy would include a light color scheme and warm tones, which has been designed to complement and reflect the materiality of the existing mix of adobe buildings, large Victorian commercial blocks, and Spanish Revival–style buildings in the El Pueblo and Olvera Street area. However, the visual features at the Olvera Street marketplace still dominate the view, and the new station is not blocking a significant view.

KOP 7b

KOP 7b (Figure 5-8 in Appendix A) shows the existing viewpoint from the perspective of a pedestrian or El Pueblo tourist looking north along Alameda Street from the southwestern corner of Alameda Street and Cesar E. Chavez Avenue. Prominent in the foreground is the ROW of both streets, traffic signals, and weathered decorative pedestrian crosswalks. The middleground includes views of a gas station, the Alameda Street ROW, a portion of the United States Post Office Terminal Annex building and landscaping, decorative and typical roadway light poles, The California Endowment buildings and landscaping, as well as visual clutter, including overhead power lines and poles. Other development and the Elysian Park hills are narrowly visible in the distant background of the view.

KOP 7b (Figure 5-8 in Appendix A) also shows this pedestrian or El Pueblo tourist view looking north along Alameda Street with the visual simulation of the proposed Project. In the simulated view, the proposed Alameda Tower, cables, and cabins are visible in both the foreground and middleground of the view. The Alameda Tower would be in the Alameda Triangle, a City ROW between Alameda Street, North Main Street, and Alhambra Avenue, and would be 195 feet tall. The cables in this view above the Alameda Street public ROW, adjacent to the Terminal Annex, would be 64 feet above ground, and the cabins would be 44 feet above ground (bottom of cabin). The new tower, cables, and cabins in this view represent a noticeable visual change. However, the new features do not block or diminish any significant views. The cables and cabins would be near the historic United States Post Office terminal annex building; and from this view, the cables look similar to overhead power lines on the left of this view, and the cabins would be constantly moving in and out of view.

Landscape Unit 1 Conclusion

As described previously in Table 4-2, the existing visual quality for LU-1 is considered to be moderately high. Overall, the operation of the proposed Project in LU-1 would represent a change in views, visual quality, and character as compared to existing conditions. However, the proposed Project is in an urban area that currently has a mix of architectural styles, building materials, and colors, as well as a mix of primarily traditional and some modern style buildings. No designated State scenic highways or designated scenic vistas are present in LU-1. Further, as with other views in the Project area, although the buildings are visually prominent, they lie in heavily urbanized areas, and would not have a substantial adverse effect on prominent views of valued visual resources.

Viewer groups, including pedestrians, motorists, LAUS patrons, and El Pueblo patrons, would have a low to moderate sensitivity to the visual change, and some may have less of a personal investment in the visual appearance of the proposed Project in LU-1 because they are primarily visiting, do not necessarily reside in the area, and also have fleeting and/or temporary views of the Project components. Others may visit the area to view the unique setting. El Pueblo tourists would have a high sensitivity to visual change, because they are specifically seeking a pleasant visual setting or experience.

Resident viewer groups, including residents of the Mozaic Apartments, may have moderate sensitivity to the visual change, because some residents may have selected to reside adjacent to LAUS, a transportation hub, because they desire to reside near numerous transit options, technologies, and modes. However, other residents may have a high sensitivity to the visual change, because they would have direct views of the proposed Alameda Station either from the

public sidewalk adjacent to the apartments, or potentially from their private unit. The new station would represent a new and large element in the visual environment for residents.

Under the L.A. CEQA Thresholds Guide (2006), visual impacts are assessed based on changes to views from publicly accessible locations or public views. Therefore, any references to and analysis of residential views and resident viewer groups, which are assumed to be associated with private residential properties, are provided only for informational purposes, because the L.A. CEQA Thresholds Guide (2006) does not protect private views from residential properties.

The proposed Alameda Station would be in the Alameda Street ROW in between El Pueblo and LAUS, both of which possess historic and unique visual characteristics that make them landmarks. Due to the station's height and massing, the station would result in a visual contrast in this portion of LU-1. However, the station would be north of Los Angeles Street on Alameda Street at a location that does not block views from El Pueblo looking directly east to the LAUS entrance (and vice versa). For more information on the axial connection and visual relationship between the Los Angeles Union Station Passenger Terminal and El Pueblo landmarks, see the Historical Resource Technical Report prepared for the proposed Project.

LU-1 is characterized by historic landmarks that are visually memorable, such as LAUS, and other buildings in El Pueblo. As discussed in Section 2.0, *Project Description*, the proposed Project's design goal is to develop a common architectural design that unifies the overall aerial gondola system, while allowing for each major component to contribute to the respective localized urban condition. The Alameda Station's platform and canopy would include a light color scheme and warm tones, which has been designed to complement and reflect the materiality of the existing mix of adobe buildings, large Victorian commercial blocks, and Spanish Revival–style buildings in the El Pueblo and Olvera Street area. In addition, the "shell" roof design provides a visual lightness with an integrated perforation pattern motif, based on the arched forms that mark openings and entries to Union Station, Pico House, and other historic buildings in El Pueblo.

The proposed Project would also integrate physical and visual connections between the proposed Alameda Station and existing adjacent development, such as the new pedestrian plaza at El Pueblo. The new pedestrian plaza at El Pueblo would be open to the public, and would extend view corridors between the proposed Alameda Station and existing development in a way that creates an observed visual unity.

For a project in an urban area, a significant impact to visual character or quality would occur if the project would conflict with applicable zoning and other regulations governing scenic quality. The proposed Project in LU-1 would primarily be above the public ROW, in which zoning regulations governing scenic quality are not applicable. However, the proposed Project in LU-1 would be consistent with the goals and objectives related to scenic quality in Chapter 5, Urban Form and Neighborhood Design of the Framework Element of the City of Los Angeles General Plan, the Mobility Plan 2035, as well as the applicable policies related to scenic quality in the Central City Community Plan.

With regard to Chapter 5, Urban Form and Neighborhood Design, the proposed Project would improve the quality of the public realm through Project design, which would promote accessibility via improved pedestrian pathways that would be complementary and appropriate to the character of the existing buildings in the surrounding area. As illustrated in Figures 5-1 through 5-8 in Appendix A, the proposed Project would be consistent with Objective 4.2 of the Central City Community Plan related to the preservation of visual links to open space areas, because the proposed Project would form a background feature, and would not block views of open space

areas. The Project design would also provide attractive transit services in compliance with the Mobility Plan 2035.

The proposed Project includes entitlements and approvals to establish land use regulations for the proposed Project alignment to ensure consistent implementation of development standards throughout the Project alignment. The development standards are in recognition of the Project's unique characteristics, including unique opportunities for public benefits, and the unique aspects of an aerial rapid transit system. With the proposed Project's entitlements and approvals, which would include design standards to enhance the visual identity and character of the proposed Project and its surrounding communities, there would not be a conflict with applicable zoning or other regulations governing scenic quality.

In addition, there are no designated scenic vistas in LU-1 according to review of local planning documents, as well as no scenic resources in a State scenic highway. The closest designated State scenic highway is SR-2, approximately 11 miles north of the Project alignment. The proposed Project in LU-1 would not have a substantial adverse effect on a scenic vista, and would not substantially damage scenic resources in a State scenic highway. The proposed Project would also enhance the public realm, aesthetic lighting/signage, connections to open space, transit, and community facilities. As a result of the analysis above, the operation of the proposed Project in LU-1 would not substantially degrade the existing visual character or quality of public views of the site and its surroundings, because it would not conflict with applicable zoning and other regulations governing scenic quality. Therefore, the impact would be less than significant.

5.1.2.2 Landscape Unit 2 – Cesar E. Chavez Avenue to Alpine Street

In LU-2, the proposed Project would remain in the public ROW, and travel north from the Alameda Station along Alameda Street to the proposed Alameda Tower, which would be constructed in the Alameda Triangle public ROW between Alameda Street, North Main Street, and Alhambra Street. The proposed Project would continue north along Alameda Street and cross Alpine Street.

KOP 8

KOP 8 (Figure 5-9 in Appendix A) shows the existing viewpoint from the perspective of a pedestrian looking south from the public sidewalk along the eastern side of Alameda Street, just north of Cesar E. Chavez Avenue. KOP 8 is adjacent to the historic United States Post Office Terminal Annex building (not shown) property, and associated shrubs and trees on the eastern side of the street, which are visible in the foreground. Also in the foreground of the view is the Alameda Street public ROW, both typical and decorative light poles, and traffic signals. Visible in the middleground are the Mozaic Apartments and adjacent palm trees, street trees, the northern entrance to Olvera Street, and one-story El Pueblo buildings that front onto Alameda Street. The background of the view includes distant views of several high-rise buildings, including the top portion of City Hall in downtown Los Angeles.

KOP 8 (Figure 5-9 in Appendix A) also shows this pedestrian view looking south from the public sidewalk along the eastern side of Alameda Street, just north of Cesar E. Chavez Avenue, with the visual simulation of the proposed Project. In the simulated view, the Alameda Station is visible in the center of the view, and the cables are visible in the center and top of the view. The Alameda Station is 78 feet high at its tallest point. The view shows the proposed Alameda Station and cables interrupted by various light poles and traffic signals. The rounded Alameda Station canopy, platforms, and concrete column represent a noticeable visual change in the middleground of the view. The station canopy blocks the view of high-rise buildings in the northern portion of downtown

Los Angeles; however, the view of the top portion of City Hall remains on the right. The height and massing of the station canopy appears to contrast with the lower profile of the El Pueblo buildings to the west. The architectural style of the station is designed to complement the existing buildings and other structures in the El Pueblo and Olvera Street area. The station canopy does not directly block views from western-facing windows of the Mozaic Apartments, but does introduce a new visual element in the view that has a larger mass and scale than existing uses.

KOP 9

KOP 9 (Figure 5-10 in Appendix A) shows the existing viewpoint from the perspective of a pedestrian looking along Alameda Street from the public sidewalk at the southwestern corner of Alameda Street and Main Street, just south of Ord Street. Main Street veers to the right or northeast in the view, where there are existing interrupted views of the San Gabriel Mountains in the distance. KOP 9 is adjacent to a small commercial building and associated surface parking lot on the western side of the street. In the foreground of the view is the commercial building, Alameda Street public ROW, street signage, overhead power transmission lines and poles, decorative vehicular street lighting, and trees and landscaping. Visible in the middleground is a small portion of a building in The California Endowment complex on the right, the Main Street ROW, Alameda Triangle trees, decorative lighting, commercial buildings, overhead power transmission lines and poles, and the elevated Metro L Line (Gold). In the background are distant views of existing buildings, the Elysian Park hills in the center of the view, and the San Gabriel Mountains in the distance.

KOP 9 (Figure 5-10 in Appendix A) also shows this pedestrian view looking north along Alameda Street at the southwestern corner of Alameda Street and Main Street with the visual simulation of the proposed Project. In the simulated view, the proposed Alameda Tower, Alpine Tower, cabin, and cables in the center are the prominent features in the view. The proposed Chinatown/State Park Station is visible in the distance in the center of the view, beyond the Metro L Line (Gold) elevated ROW. The proposed Alameda Tower would be 195 feet tall, with cables suspended 167 feet above ground at the southern approach directly south of the tower. Implementation of the Alameda Tower would include reuse and integration of the existing pavers at the Alameda Triangle, as well as additional landscape and hardscape updates to the Alameda Triangle. The proposed Alpine Tower would be 195 feet tall at its tallest point, with the cable suspended 175 feet above ground at the southern approach directly south of the tower. The proposed Chinatown/State Park Station would be approximately 200 feet long, 80 feet wide, and 98 feet tall at its tallest point, with the passenger boarding platform approximately 50 feet above-grade.

As shown in the simulation, the height of the proposed towers would be a noticeable visual change to the view. The modern architectural style of both towers is evident, and differs from the style of the older commercial structures on the western side of the street. The proposed towers would be more consistent with the architectural style of The California Endowment buildings complex to the right of the view. Because of the distance from the KOP, the canopy of the proposed Chinatown/State Park Station appears to generally blend in with the visual setting of the existing environment. The proposed Project would not block any unique or scenic views, including views of the San Gabriel Mountains to the north.

KOP 10

KOP 10 (Figure 5-11 in Appendix A) shows the existing viewpoint from the perspective of a pedestrian looking south along Alameda Street from the public sidewalk at the southeastern corner of Alameda Street and Main Street. KOP 10 is adjacent to The California Endowment

building complex on the eastern side of the street. In the foreground of the view are the Alameda Street public ROW, trees and landscaping, overhead power lines and poles, and typical light poles. Visible in the middleground are traffic signals, a gas station, trees, and other existing multi-level buildings. The background of the view includes distant views of several high-rise buildings, including City Hall in downtown Los Angeles.

KOP 10 (Figure 5-11 in Appendix A) also shows this pedestrian view looking south along Alameda Street directly south of Main Street with the visual simulation of the proposed Project. In the simulated view, the proposed Alameda Station is partially visible in the distance, and the cables are visible in the center and top of the view. The view shows that the proposed Alameda Station and cables add to the existing overhead power lines, light pole, and traffic signals evident on the western side of the street, contributing to the existing visual clutter. The Alameda Station would be 78 feet high at its tallest point, with the cables in this view at approximately 175 feet above ground. From this view, the proposed Alameda Station and cables do not block or interrupt any scenic or unique views.

Landscape Unit 2 Conclusion

As described previously in Table 4-2, the existing visual quality for LU-2 is considered to be moderately low. Overall, the operation of the proposed Project in LU-2 would represent a change in views, visual quality, and character as compared to existing conditions. However, the proposed Project is in an urban area that currently has a mix of architectural styles, building materials, and colors, as well as a mix of primarily traditional and some modern style buildings. No designated State scenic highways or designated scenic vistas are present in LU-2. Further, as with other views in the Project area, although the buildings are visually prominent, they lie in heavily urbanized areas, and would not have a substantial adverse effect on prominent views of valued visual resources.

Viewer groups such as pedestrians and motorists would have a low to moderate sensitivity to the visual change, and may have less of a personal investment in the visual appearance of the proposed Project in LU-2 because they are primarily visiting and do not necessarily reside in the area, and also would have fleeting and/or temporary views of the Project components. Because of the highly urban characteristics of the area, any pedestrians or motorists that may live in LU-2 have likely chosen to reside along or nearby Alameda Street because they desire to live near numerous transit options, technologies, and modes.

The impact to visual quality and character would not be significant. LU-2 already exhibits some visual clutter from the existing overhead lines, light poles, and traffic signals along a portion of the western side of Alameda Street. Although the views of the Alameda Tower would contrast in terms of height with existing uses, the views would not substantially alter visual character due to the lack of uniform character in this LU.

LU-2 consists of a mix of commercial, institutional, open space, and other uses. The United States Post Office Terminal Annex building is in this LU, which is a historic landmark due to its architecture, as well as The California Endowment, which is a visually prominent mix of modern buildings. As discussed previously, the proposed Project’s design goal is to develop a common architectural design that unifies the overall aerial gondola system, while allowing for each major component to contribute to the respective localized urban condition. The modern architectural style of the Alameda Tower is evident, and would complement the buildings in The California Endowment. In addition, the neutral light-tone gray color scheme of the Alameda Tower was

designed for consistency with the surrounding urban environment, and to not distract from visually distinct structures, such as the United States Post Office Terminal Annex building.

For a project in an urban area, a significant impact to visual character or quality would occur if the project would conflict with applicable zoning and other regulations governing scenic quality. The proposed Project in LU-2 would primarily be above the public ROW, in which zoning regulations related to scenic quality do not apply. The proposed tower base for the Alameda Tower in the Alameda Triangle would also be in the public ROW. The proposed Project would be consistent with the goals and objectives in Chapter 5, Urban Form and Neighborhood Design of the Framework Element of the City of Los Angeles General Plan, the Mobility Plan 2035, as well as the applicable policies related to scenic quality in the Central City North Community Plan.

With regard to Chapter 5, Urban Form and Neighborhood Design, the proposed Project would improve the quality of the public realm through Project design, which would promote accessibility via improved pedestrian pathways that would be complementary and appropriate to the scale and character of the existing buildings in the surrounding area. As illustrated in Figures 5-9 through 5-11 in Appendix A, the proposed Project would be consistent with Objective 5.1 of the Central City North Community Plan related to the preservation of visual links to open space areas, because the proposed Project would form a background feature and would not block views of open space areas. The proposed Project would also provide attractive transit services in compliance with the Mobility Plan 2035.

The proposed Project includes entitlements and approvals to establish land use regulations for the proposed Project alignment to ensure consistent implementation of development standards throughout the Project alignment. The development standards would recognize the Project's unique characteristics, including unique opportunities for public benefits and the unique aspects of an aerial rapid transit system. The design standards included in the proposed Project's entitlements and approvals would enhance the visual identity and character of the proposed Project and its surrounding communities, and would ensure visual compatibility with adjacent development, as well as the Project area's overall community character. Overall, the Project would not conflict with applicable zoning or other regulations governing scenic quality.

There are no designated scenic vistas in LU-2, as well as no scenic resources in a State scenic highway. The proposed Project in LU-2 would not have a substantial adverse effect on a scenic vista, and would not substantially damage scenic resources in a State scenic highway. The proposed Project would also enhance the public realm, aesthetic lighting/signage, connections to open space, transit, and community facilities. The operation of the proposed Project in LU-2 would not substantially degrade the existing visual character or quality of public views of the site and its surroundings, and the impact would be less than significant.

5.1.2.3 Landscape Unit 3 – Alpine Street to Southwestern Corner of Los Angeles State Historic Park

In LU-3, the proposed Project would remain in the public ROW and travel north along Alameda Street from Alpine Street to the southwestern corner of Los Angeles State Historic Park. Also, in LU-3, the proposed Alpine Tower would be on a City-owned parcel that is currently used as non-public parking storage for City vehicles, at the northeastern corner of Alameda Street and Alpine Street, adjacent to the Metro L Line (Gold). The Alpine Tower would be 195 feet tall at its tallest point, with the cable suspended 168 feet above ground at the northern approach directly north of the tower. The Chinatown/State Park Station would be adjacent to Spring Street in the southernmost portion of Los Angeles State Historic Park. The southern portion of the station

would be on a City ROW, while the northern portion of the station would be in the southern boundary of Los Angeles State Historic Park. The station would be approximately 200 feet long, 80 feet wide, and 98 feet tall at its tallest point. Queueing and ticketing/fare checking would be inside the station.

KOP 11

KOP 11 (Figure 5-12 in Appendix A) shows the existing viewpoint from the perspective of a resident or pedestrian looking east along Alpine Street from the public sidewalk at the northwestern corner of Spring Street and Alpine Street. KOP 11 is adjacent to a surface parking lot. In the foreground of the view are the Spring Street and Alpine Street ROWs, including decorative public crosswalks and traffic signals, and decorative and typical poled lighting. The middleground of the view includes The Metro at Chinatown Senior Lofts residential building on the left, and a commercial/industrial fleet services building on the right, as well as trees. In the background of the view, the elevated Metro L Line (Gold) structure and the two multi-level Twin Towers Correctional Facility buildings are visible in the distance.

KOP 11 (Figure 5-12 in Appendix A) also shows this resident or pedestrian view looking east along Alpine Street from the public sidewalk at the northwestern corner of Spring Street and Alpine Street with the visual simulation of the proposed Project. In the simulated view, the proposed aerial gondola cables and cabins are visible in the center and right of the view, suspended above Alameda Street to the east. The cables above the intersection of Alameda Street and Alpine Street would be suspended 171 feet above ground, and cabins 151 feet above ground (bottom of cabin). This view of cables is between the proposed Alpine Tower just to the north and the proposed Alameda Tower to the south; neither proposed tower is visible in the view. The proposed Alpine Tower is blocked from view by the existing Metro at Chinatown Senior Lofts building, which generally dominates the view. No unique or scenic views would be blocked, and the visual change is minor.

KOP 12

KOP 12 (Figure 5-13 in Appendix A) shows the existing viewpoint from the perspective of a pedestrian or motorist looking north along Alameda Street from just south of College Street. North of College Street, Alameda Street becomes Spring Street. KOP 12 is adjacent to a fenced school bus parking lot, in which the fencing is visible on the right. The foreground of the view includes the Alameda Street/Spring Street ROW, utility pole, and decorative vehicular light pole. The existing elevated Metro L Line (Gold) Chinatown Station, elevated light rail guideway, and overhead catenary system is visible in the middleground along with the Spring Street ROW, traffic signals, light poles, signage, and a small portion of a vacant lot at the northeastern corner of Spring Street and College Street. The existing Metro L Line (Gold) Chinatown Station exhibits a colorful Chinese architectural style that is consistent with certain buildings in Chinatown. In the background of the view, buildings on the existing elevated North Broadway ROW, as well as Elysian Park hills are visible.

KOP 12 (Figure 5-13 in Appendix A) also shows this pedestrian or motorist view looking north along Alameda Street from just south of College Street with the visual simulation of the proposed Project. In the simulated view, the proposed Chinatown/State Park Station is visible. The Chinatown/State Park Station would be adjacent to Spring Street in the southernmost portion of Los Angeles State Historic Park. The southern portion of the station would be on a City ROW, while the northern portion of the station would be within the southern boundary of Los Angeles State Historic Park. The station would be approximately 200 feet long, 80 feet wide, and 98 feet

tall at its tallest point, with the passenger boarding platform approximately 50 feet above-grade. Vertical circulation elements (i.e., elevators and stairs) would be installed in the central portion of the station. In the simulated view, the proposed Chinatown/State Park Station represents a new element to the visual environment, and its height and mass would contrast with some existing area uses, including the Metro L Line (Gold) Chinatown Station. Although the gondola cables represent an additional new visual element that would traverse the current view, the presence of the elevated Metro L Line (Gold) and overhead catenary system would reduce the contrast. The distant view of the Elysian Park hills would be blocked or interrupted by the Chinatown/State Park Station.

KOP 13

KOP 13 (Figure 5-14 in Appendix A) shows the existing viewpoint from the perspective of a pedestrian or motorist looking south along Spring Street from just north of the northern pedestrian crosswalk at College Street. North of College Street, Alameda Street becomes Spring Street. KOP 13 is adjacent to a vacant lot on the left (not shown). The foreground of the view includes the Spring Street, Alameda Street, and College Street ROWs, including traffic signals, as well as the existing elevated Metro L Line (Gold) Chinatown Station and elevated light rail guideway on the right. The existing station exhibits a Chinese architectural style that is also visible throughout certain buildings in Chinatown. The middleground of the view includes commercial and parking uses on the left, and the elevated Metro L Line (Gold) structure and overhead catenary system. In the background of the view, the multi-story Metro at Chinatown Senior Lofts buildings and a distant high-rise building are visible. Primarily decorative lighting is present in this view.

KOP 13 (Figure 5-14 in Appendix A) also shows this pedestrian or motorist view looking south along Spring Street from just north of the northern pedestrian crosswalk at College Street with the visual simulation of the proposed Project. In the simulated view, the proposed aerial gondola cables and cabins are visible in the center of the view. The cables would be suspended 86 feet above the intersection of Spring Street/Alameda Street and College Street, with the cabin suspended 66 feet above ground (bottom of cabin) at the same location. The proposed Alpine Tower and Alameda Tower are both visible looking south along Spring Street/Alameda Street. Due to the presence of the existing elevated Metro L Line (Gold) Chinatown Station, elevated light rail guideway, and overhead catenary system, the proposed Project in LU-3 from this view would not introduce a visual feature that contrasts substantially with existing conditions. In addition, no unique or scenic views would be blocked.

KOP 14

KOP 14 (Figure 5-15 in Appendix A) shows the existing viewpoint from the perspective of a resident or pedestrian looking east along the northern side of College Street from the public sidewalk west of the existing elevated Metro L Line (Gold) Chinatown Station, adjacent to the Blossom Plaza mixed-use multi-family residential and commercial buildings. Visible in the foreground is the College Street ROW, a tree, a two-story commercial building, and decorative and typical poled lighting. The middleground of the view includes the Spring Street ROW, and the elevated Metro L Line (Gold) structure and overhead catenary system. In the background of the view, east of the Metro L Line (Gold), the uses appear visually cluttered with a large amount of overhead power lines and poles.

KOP 14 (Figure 5-15 in Appendix A) also shows this resident or pedestrian view looking east along the northern side of College Street from the public sidewalk adjacent to Blossom Plaza with the visual simulation of the proposed Project. In the simulated view, the proposed aerial gondola

cables and cabin are visible in the center of the view above Spring Street/Alameda Street to the east of the KOP. The cables would be suspended 86 feet above the intersection of Spring Street/Alameda Street and College Street, with the cabin suspended 66 feet above ground (bottom of cabin) at the same location. This view of cables is between the proposed Alpine Tower to the south and the proposed Chinatown/State Park Station to the north; neither proposed tower nor station is visible in the view. With the presence of the elevated Metro L Line (Gold) and overhead catenary system, along with the numerous overhead power lines and poles visible in the distance, the proposed Project in this view does not substantially contrast visually from existing conditions. In addition, no unique or scenic views would be blocked.

KOP 15a

KOP 15a (Figure 5-16 in Appendix A) shows the existing viewpoint from the perspective of a resident, pedestrian, or transit commuter looking northeast from the sidewalk adjacent to the elevated Metro L Line (Gold) Chinatown Station, and near the Capitol Milling Company Building property (red brick structure on the left) on the western side of Spring Street, north of College Street. Blossom Plaza multi-family residential buildings are adjacent to the southwest (not shown) of KOP 15a. In the foreground of the view is the stairway with green railing and the underside of the elevated Metro L Line (Gold) Chinatown Station, as well as the Spring Street ROW, including a wide public sidewalk on the western side of the street. The middleground of the view includes the elevated Metro L Line (Gold) structure, decorative vehicular street lighting, the red brick Capitol Milling Company Building, a commercial building, and street trees and landscaping. The background of the view includes the southern corner of Los Angeles State Historic Park and associated trees and landscaping, as well as mature trees and the Elysian Park hills. A distant and partial view of the San Gabriel Mountains is evident on the right; however, it is highly interrupted by trees and intervening development.

KOP 15a (Figure 5-16 in Appendix A) also shows this resident, pedestrian, or transit commuter view looking northeast along the western side of Spring Street, north of College Street, with the visual simulation of the proposed Project. In the simulated view, the top portion of the proposed 98-foot-tall Chinatown/State Park Station canopy is visible above the new landscaping and trees to be provided as a parkway along the western side of Spring Street, adjacent to the elevated Metro L Line (Gold) Chinatown Station. Cables and a cabin are also visible at the top of the view, but would be partially blocked by the proposed new trees. As is visible in the view, pedestrian access enhancements could include pedestrian improvements between Metro's L Line (Gold) Chinatown Station, and the Chinatown/State Park Station, including hardscape and landscape improvements, shade structures, and potential seating. These new amenities would be considered a Project benefit and improvement to the existing visual environment along the western side of Spring Street. The view of Los Angeles State Historic Park landscaping is partially blocked by the additional landscaping proposed along Spring Street; however, the existing view was already interrupted by fencing and existing light poles. Although the proposed station is a large structure that would be introduced into the visual environment, no unique or scenic views would be impacted. With the presence of the elevated Metro L Line (Gold) and overhead catenary system, the proposed Project in this view would not substantially contrast visually from existing conditions. The visual environment would be improved with the inclusion of additional parkway landscaping and trees.

KOP 15b

KOP 15b (Figure 5-17 in Appendix A) shows the existing viewpoint from the perspective of a pedestrian or recreationalist looking northwest towards the Elysian Park Hills and the San Gabriel

Mountains from the public sidewalk on the western side of Spring Street, south of and near the southernmost entrance to Los Angeles State Historic Park. The view primarily includes the concrete sidewalk, green landscaping, mature trees, a large storage container, and the driveway entrance to an adjacent private property. The middleground is similar, with sidewalk, trees, and landscaping visible. The background of the view includes Los Angeles State Historic Park and associated trees and landscaping, as well as mature trees and the Elysian Park hills. A distant and partial view of the San Gabriel Mountains is evident on the right; however, it is highly interrupted by trees and intervening development.

KOP 15b (Figure 5-17 in Appendix A) also shows this pedestrian or recreationalist perspective looking northwest towards the Elysian Park Hills and the San Gabriel Mountains from the public sidewalk on the western side of Spring Street, south of and near the southernmost entrance to Los Angeles State Historic Park, with the visual simulation of the proposed Project. In the simulated view, the proposed Chinatown/State Park Station is visible in the center and foreground of the view. The visible columns and colorful public art below the station platform represent a new visual element. The mass of the new station also represents a visual change, and appears larger than other nearby structures. From this view, the proposed Project represents a visual change and interrupts views of Los Angeles State Historic Park and Elysian Park Hills, as well as the distant and partial view of the San Gabriel Mountains. However, even with the implementation of the proposed Project, there are numerous other vantage points from within and adjacent to the park, in which the views of Los Angeles State Historic Park, Elysian Hills, and San Gabriel Mountains are not interrupted by the station.

Landscape Unit 3 Conclusion

As described previously in Table 4-2, the existing visual quality for LU-3 is considered to be low. Overall, the operation of the proposed Project in LU-3 would represent a change in views, visual quality, and character compared to existing conditions. However, the proposed Project is in an urban area that currently has a mix of architectural styles, building materials, and colors, as well as a mix of older and modern style buildings. In addition, this LU includes the existing elevated Metro L Line (Gold) guideway and overhead catenary system, which is a noticeable existing visual element. No designated State scenic highways or designated scenic vistas are present in LU-3. Further, as with other views in the Project area, although the buildings are visually prominent, they lie in heavily urbanized areas, and would not have a substantial adverse effect on prominent views of valued visual resources.

Viewer groups, including pedestrians, motorists, and transit commuters, would have a low to moderate sensitivity to the visual change, and may have less of a personal investment in the visual appearance of the proposed Project in LU-3 because they are primarily passing through in route to other destinations, and also would have fleeting and/or temporary views of the Project components. In addition, the presence of the elevated Metro L Line (Gold) Chinatown Station and structure, and nearby overhead power lines and poles, contribute to the existing visual elements these viewers already experience in existing conditions. Because of the highly urban characteristics of the area, any pedestrians, motorists, or transit commuters that may live in LU-3 have likely chosen to reside along or nearby Alameda Street because they desire to live near numerous transit options, technologies, and modes.

Resident viewer groups (Blossom Plaza apartments) would have moderate sensitivity to the visual change because the Metro L Line (Gold) Chinatown Station and structure are adjacent to the apartments. Similar to pedestrians, motorists, and transit commuters that may reside in the area as discussed above, some residents in LU-3 may have selected to reside along or near Alameda

Street because they desired to reside near numerous transit options, technologies, and modes. Also, the proposed Chinatown/State Park Station is a new and large visual element in the landscape, and views from residents would already be altered noticeably. However, a benefit of the Project in this LU would be the Park amenities, mobility hub, pedestrian improvements, and installation of hardscaping and landscaping at the southern entrance to Los Angeles State Historic Park, which currently includes only hardscaping. The park amenities would include approximately 740 square feet of concessions, 770 square feet of restrooms, and a 220-square-foot covered breezeway connecting the concessions and restrooms. Pedestrian access enhancements included in the proposed Project would include pedestrian improvements between Metro's L Line (Gold) Station and the Chinatown/State Park Station, including hardscape and landscape improvements, shade structures, and potential seating. The Chinatown/State Park Station would also include the installation of landscaping and hardscaping at the southern entrance to the park along Spring Street, which currently only includes hardscaping.

Because visual impacts under the L.A. CEQA Thresholds Guide (2006) are assessed based on changes to public views, analysis of resident viewer groups is provided only for informational purposes, because the L.A. CEQA Thresholds Guide (2006) does not protect private views from residential properties.

LU-3 is characterized by a mix of multi-family residential, commercial, industrial, parking, and transit uses, as well as undeveloped land. As discussed in Section 2.0, *Project Description*, the proposed Project's design goal is to develop a common architectural design that unifies the overall aerial gondola system, while allowing for each major component to contribute to the respective localized urban condition. LU-3 currently has a mix of architectural styles and building materials and colors, including traditional Chinese architecture in the adjacent Chinatown community. Both the Chinatown/State Park Station and Alpine Tower would consist of a neutral light-tone gray color scheme that would provide visual lightness to the form, and their design would complement the existing buildings in this area, while not distracting from the visually distinct Chinese architecture in this area. In addition, the new amenity building intended for use by LA ART riders and park visitors alike was designed to reflect the scale and materiality of the existing visitor amenity buildings in Los Angeles State Historic Park.

Further, the pedestrian access enhancements in LU-3 between Metro's L Line (Gold) Chinatown Station and the Chinatown/State Park Station would acknowledge the visual character of existing park amenities. For example, the hardscape and landscape improvements, shade structures, and potential seating would incorporate design features that would establish a unifying and cohesive design consistent with the overall character of the existing structures in LU-3.

For a project in an urban area, a significant impact to visual character or quality would occur if the project would conflict with applicable zoning and other regulations governing scenic quality. The proposed Project in LU-3 would primarily be above the public ROW, in which zoning regulations related to scenic quality do not apply. However, the proposed tower base for the Alpine Tower would be on City-owned property that is currently zoned C2, but does not include zoning regulations governing scenic quality. The southern portion of the Chinatown/State Park Station would be in the public ROW, which does not include zoning or other regulations governing scenic quality. The northern portion of the Chinatown/State Park Station, which is in Los Angeles State Historic Park property, is zoned GW (Greenway) under the CASP, and allows for development of open space and recreational facilities. The proposed Project in LU-3 would be consistent with the CASP goals, because the Project would assist in the transition of the area from vehicle-oriented to pedestrian-oriented, and would have an innovative architectural design. The proposed Project in LU-3 would be consistent with Los Angeles State Historic Park General Plan aesthetic

resources goals to protect and enhance scenic viewsheds and features, and preserve the visitor's experience of the surrounding landscape by minimizing impacts to aesthetic resources, because of the siting of the Chinatown/State Park Station in the southernmost portion of the park away from the open passive park areas. The Project in LU-3 would also be consistent with access and circulation goals by providing an additional mode of transportation that would provide efficient access to the park, as well as create a sense of entry and arrival at the park. Park development goals would be met by providing a new distinctive and high-quality facility with a forward-thinking design. Goals regarding education and interpretation would be met by the inclusion of an interpretive program that would provide educational and historical information regarding the Park at the base of the Chinatown/State Park Station.

In addition, the proposed Project would be consistent with the goals and objectives in Chapter 5, Urban Form and Neighborhood Design of the Framework Element of the City of Los Angeles General Plan, the Mobility Plan 2035, as well as the applicable policies related to scenic quality in the Central City North Community Plan.

With regard to Chapter 5, Urban Form and Neighborhood Design, the proposed Project would improve the quality of the public realm through Project design, which would promote accessibility via improved pedestrian pathways that would be complementary and appropriate to the scale and character of the existing buildings in the surrounding area. As illustrated in Figures 5-12 through 5-17 in Appendix A, the proposed Project would be consistent with Objective 5.1 of the Central City North Community Plan related to the preservation of visual links to open space areas, because the proposed Project would form a background feature, and would not block views of open space areas. The proposed Project would also provide attractive transit services in compliance with the Mobility Plan 2035.

The proposed Project includes entitlements and approvals to establish land use regulations for the proposed Project alignment to ensure consistent implementation of development standards throughout the Project alignment. The development standards recognize the Project's unique characteristics, including unique opportunities for public benefits and the unique aspects of an ART system. The design standards included in the proposed Project's entitlements and approvals would enhance the visual identity and character of the proposed Project and its surrounding communities, and would ensure visual compatibility with adjacent development, as well as the Project area's overall community character. Overall, the Project would not conflict with applicable zoning or other regulations governing scenic quality.

There are no designated scenic vistas in LU-3, as well as no scenic resources in a State scenic highway. The proposed Project in LU-3 would not have a substantial adverse effect on a scenic vista, and would not substantially damage scenic resources in a State scenic highway. The proposed Project would also enhance the public realm, aesthetic lighting/signage, connections to open space, transit, and community facilities. Therefore, the operation of the proposed Project in LU-3 would not substantially degrade the existing visual character or quality of public views of the site and its surroundings, and the impact would be less than significant.

5.1.2.4 Landscape Unit 4 – Southwestern Corner of Los Angeles State Historic Park to North Broadway

In LU-4, the proposed Chinatown/State Park Station would be partially on City property and partially within the boundaries of Los Angeles State Historic Park. The station would be approximately 200 feet long, 80 feet wide, and 98 feet tall at its tallest point, with the passenger boarding platform approximately 50 feet above grade. Queueing and ticketing/fare checking

would occur in the station. From the Chinatown/State Park Station, the proposed Project alignment would continue traveling north towards North Broadway, crossing over the westernmost edge of Los Angeles State Historic Park and the Metro L Line (Gold) tracks.

KOP 16a

KOP 16a (Figure 5-18 in Appendix A) shows the existing viewpoint from the perspective of a pedestrian or recreationalist looking southwest towards Chinatown and downtown Los Angeles from the southwestern portion in Los Angeles State Historic Park. The view primarily includes existing green space, bushes, and trees in the park in the foreground. The middleground includes a gravel walkway, additional vegetation, and the Metro L Line (Gold) with overhead catenary system. The background of the view in the center includes intervening development, such as the Capitol Milling Company building (logo on side of building is visible), colorful multi-family residential buildings, industrial and parking uses, as well as and a portion of the downtown Los Angeles skyline including City Hall.

KOP 16a (Figure 5-18 in Appendix A) also shows this pedestrian or recreationalist view looking southwest towards Chinatown and downtown Los Angeles from the southwestern portion in Los Angeles State Historic Park with the visual simulation of the proposed Project. In the simulated view, the proposed Chinatown/State Park Station is partially visible on the left and middleground of the view. The cables and a cabin are visible in the foreground on the left in the southwestern portion of the park, nearly at the midpoint between the Chinatown/State Park Station and the proposed Broadway Junction to the north. At this location, the cables would be suspended 46 feet above ground, and the cabin 26 feet above ground (bottom of cabin). The height of the new station would be similar to the heights of other existing development in Chinatown from this view. However, the mass of the new station appears larger than other nearby structures. The station represents a new visual element to recreationalists in the park. The proposed cables and cabins are visible on the left and would be visible to recreationalists. From this view, the proposed Project represents a noticeable visual change, and adds a new, unique architectural element to the visible downtown Los Angeles skyline, as well as the distant view of the Capitol Milling Company Building. The proposed Project in the view would not substantially contrast visually from existing conditions. The view of City Hall and downtown Los Angeles skyline in the center are not impacted.

KOP 16b

KOP 16b (Figure 5-19 in Appendix A) shows the existing viewpoint from the perspective of a pedestrian or recreationalist looking southwest towards Chinatown and downtown Los Angeles from the southwestern portion in Los Angeles State Historic Park. The view primarily includes the expansive flat grassy area of the Park with some trees. Additional small trees, a walking/biking trail, the Metro L Line (Gold), the sloped area leading to North Broadway, intervening development, and overhead power lines and towers are visible in the middleground. The downtown Los Angeles skyline, including City Hall, are visible in the background.

KOP 16b (Figure 5-19 in Appendix A) also shows this pedestrian or recreationalist view looking southwest towards Chinatown and downtown Los Angeles from the southwestern portion of the Park with the visual simulation of the proposed Project. In the simulated view, the proposed Chinatown/State Park Station is partially visible in the center. The rounded canopy of the station, and the cables and cabins are visible in the center in the southwestern portion of the park. At this location, the cables would be suspended 46 feet above ground, and cabins 26 feet above ground (bottom of cabin). The height of the new station would be similar to the heights of other existing

development in the downtown Los Angeles skyline from this view. However, the mass of the new station appears larger than other nearby structures. The station represents a new visual element to recreationalists in the park. From this view, the proposed Project represents a noticeable visual change, and adds a new unique architectural element to the visible downtown Los Angeles skyline, as well as the distant view of the Capitol Milling Company Building. From this view, the proposed Project does not interrupt views of the downtown Los Angeles skyline and City Hall. The cabins are visible in the center, but they would be constantly moving out of view.

KOP 17

KOP 17 (Figure 5-20a in Appendix A) shows the existing viewpoint from the perspective of a pedestrian or recreationalist looking southwest towards Chinatown and downtown Los Angeles from the interior of the Los Angeles State Historic Park. The view primarily includes the expansive flat and gently sloping grassy areas and pathways of the park, with interspersed trees. Additional trees, walking/biking trails, the Metro L Line (Gold) ROW, and the sloped area leading to Broadway are visible in the middleground. Industrial and commercial buildings, as well as overhead power transmission lines and poles are visible along the eastern side of Spring Street in the background. Also, the downtown Los Angeles skyline, including City Hall and other intervening development, is visible in the background.

KOP 17 (Figure 5-20a in Appendix A) also shows the pedestrian or recreationalists view looking southwest towards Chinatown and downtown Los Angeles with the visual simulation of the proposed Project. Additionally, Figure 5-20b shows the view from same location in the park, which has been provided at a larger scale for informational purposes only; however, it is not a photo-realistic visual simulation. In the simulated view, the proposed Chinatown/State Park Station is distinctly visible towards the center of the view. The associated cables and cabins are visible in the center and right of the view above Los Angeles State Historic Park. Directly north of the Chinatown/State Park Station, at the northern approach to the station, the cables would be suspended 63 feet above ground, and cabins 43 feet above ground (bottom of cabin). The height of the station appears to be consistent with existing development that is visible, including the approximately seven-story Llewellyn Apartments building to the east of Los Angeles State Historic Park. From this view, the station represents a noticeable visual change, but does not interrupt views of the downtown Los Angeles skyline and City Hall. The view of City Hall and downtown Los Angeles skyscrapers in the center are not impacted.

KOP 18

KOP 18 (Figure 5-21 in Appendix A) shows the existing viewpoint from the perspective of a pedestrian or recreationalist looking southwest towards Chinatown and downtown Los Angeles from the public sidewalk on the western side of Spring Street just north of Sotello Street, adjacent to the Los Angeles State Historic Park. The view primarily includes the concrete sidewalk, green landscaping, small trees, and the driveway entrance to the park's parking lot and building to the west. The middleground is similar, with sidewalk, trees, and landscaping visible. The background of the view in the center includes intervening development, such as the elevated Metro L Line (Gold) structure, Capitol Milling Company building, multi-family residential buildings, and a portion of the downtown Los Angeles skyline. The background of the view on the left includes one- to two-story commercial/industrial buildings, typical light poles, and overhead power transmission lines and poles.

KOP 18 (Figure 5-21 in Appendix A) also shows this pedestrian or recreationalists view looking southwest towards Chinatown and downtown Los Angeles from the public sidewalk on the

western side of Spring Street adjacent to the park, with the visual simulation of the proposed Project. In the simulated view, the proposed Chinatown/State Park Station is visible in the center and background of the view. The visible cables at the far right portion of the view above the park would be suspended approximately 46 feet above ground. The height of the new station appears consistent with other existing development from this view. The mass of the new station represents a visual change, and appears larger than other nearby structures. The station represents a new visual element. The proposed cables and cabins are visible on the right, and would be visible to recreationalists. From this view, the proposed Project represents a visual change and interrupts the partial view of downtown Los Angeles skyline, as well as the distant view of intervening development. However, even with the implementation of the proposed Project, there are numerous other vantage points from and adjacent to the park in which the view of the downtown skyline is not interrupted by the station, such as the walking trail in the westernmost portion of the park.

KOP 19

KOP 19 (Figure 5-22 in Appendix A) shows the existing viewpoint from the perspective of a pedestrian or recreationalists looking southwest towards Chinatown and downtown Los Angeles from inside Los Angeles State Historic Park, north of the elevated Roundhouse. The view primarily includes the expansive flat grassy area of the park, with some trees. Additional small trees, a walking/biking trail, the Metro L Line (Gold) ROW fence, the sloped area leading to North Broadway, intervening development, and overhead power lines and towers are visible in the middleground. The downtown Los Angeles skyline, including City Hall, are visible in the background.

KOP 19 (Figure 5-22 in Appendix A) also shows this pedestrian or recreationalists view looking southwest towards Chinatown and downtown Los Angeles from inside the park with the visual simulation of the proposed Project. In the simulated view, the proposed Chinatown/State Park Station is partially visible in the center. The cables and cabins are visible in the center in the southwestern portion of the park, nearly at the midpoint between the Chinatown/State Park Station and the proposed Broadway Junction to the north. At this location, the cables would be suspended 46 feet above ground, and cabins 26 feet above ground (bottom of cabin). From the Chinatown/State Park Station, the cables extend northwest to Broadway Junction on the right (partially visible on the right). Due to the distance, the height and massing of both the new station and junction do not stand out as being taller than other existing structures from this location. There are overhead power lines and poles along North Broadway that are partially visible, and adjacent to Broadway Junction and cables. From this view, the proposed Project does not interrupt views of the downtown Los Angeles skyline and City Hall. The cabins are visible on the right, but they would be constantly moving out of view.

Landscape Unit 4 Conclusion

As described previously in Table 4-2, the existing visual quality for LU-4 is considered to be moderately low. Overall, the operation of the proposed Project in LU-4 would represent a change in views, visual quality, and character compared to existing conditions, which contain a large amount of open space. However, the proposed Project is in an urban environment that currently has a mix of architectural styles, landscaping concepts, building materials, and colors. Views from Los Angeles State Historic Park toward the surrounding existing urban landscape exhibit various visual values. In addition, the urban edge of the park is prominent with the Metro L Line (Gold) to the north and west, the elevated North Broadway to the north, the Metro L Line (Gold) Chinatown Station to the south, and industrial uses to the south and east. No designated State scenic

highways or designated scenic vistas are present in LU-4. Further, as with other views in the Project area, although the buildings are visually prominent, they lie in heavily urbanized areas and would not have a substantial adverse effect on prominent views of valued visual resources.

Given the urban environment, viewer groups, including pedestrians and recreationalists, would have a low to high sensitivity to the visual change, and some may have less of a personal investment in the visual appearance of the proposed Project in LU-4, because they are primarily visiting and do not necessarily reside in the adjacent area, and also would have fleeting and/or temporary views of the Project components. Others may have longer views, particularly those visiting the Los Angeles State Historic Park for leisure enjoyment. In addition, Los Angeles State Historic Park is in a highly urbanized area north of downtown Los Angeles. Recreationalists that may reside in the area are assumed to be accustomed to the urban edge of the park, of which the proposed Project would become a part.

Certain southwest-facing views of the downtown Los Angeles skyline from Los Angeles State Historic Park, particularly views close to the proposed Chinatown/State Park Station, would be partially interrupted due to the Project. However, other locations in the park would remain where the view would be uninterrupted by the proposed Project. These views include looking towards downtown from the southwestern corner, and from the Roundhouse platform and walkway in the park. In addition, existing views of downtown from other areas in the park are already interrupted under existing conditions by trees and intervening development. Also, the location of the proposed cables and cabins would be adjacent to the existing Metro L Line (Gold) and the associated overhead catenary system. The cabins would be constantly moving in and out of view, and the cables have similar characteristics to the overhead power lines that are prevalent in views in this area. Therefore, the proposed cables and cabins would not significantly impact views in the area.

LU-4 is characterized by a mix of commercial/office, industrial, institutional, and transit uses, as well as undeveloped land. LU-4 is also characterized by park/open space, including Los Angeles State Historic Park. Views from Los Angeles State Historic Park towards the surrounding existing urban landscape exhibit various visual values. As discussed in Section 2.0, *Project Description*, the proposed Project's design goal is to develop a common architectural design that unifies the overall aerial gondola system, while allowing for each major component to contribute to the respective localized urban condition.

As discussed previously, the Chinatown/State Park Station, which can be viewed from LU-4, would consist of a neutral light-tone gray color scheme that would provide visual lightness to the form, and their design would complement the existing buildings in this area, as well as not distract from the visually distinct Chinese architecture. The Broadway Junction, which can also be viewed in LU-4, was designed to create a pattern evocative of layered bamboo canes, while still achieving a transparency that brings lightness to the form. In addition, the canopy of the Broadway Junction was designed to reflect warm tones and detailing that is complementary to the existing structures and the residential fabric in the surrounding urban environment in LU-4, and to not distract from visually distinct structures or open spaces areas, such as Los Angeles State Historic Park.

A visual benefit of the Project near Los Angeles State Historic Park would also be the Park amenities, potential mobility hub, pedestrian improvements, and installation of hardscaping and landscaping at the southern entrance to Los Angeles State Historic Park, which currently only includes hardscaping. The park amenities would include approximately 740 square feet of concessions, 770 square feet of restrooms, and a 220-square-foot covered breezeway connecting the concessions and restrooms. Pedestrian access enhancements included in the proposed Project would include pedestrian improvements between Metro's L Line (Gold) Station and the

Chinatown/State Park Station, including hardscape and landscape improvements, shade structures, and potential seating. The Chinatown/State Park Station would also include the installation of landscaping and hardscaping at the southern entrance to the park along Spring Street, which currently only includes hardscaping. In addition, the new amenity building intended for use by LA ART riders and park visitors alike was designed to reflect the scale and materiality of the existing visitor amenity buildings in Los Angeles State Historic Park. The activities associated with the new station such as queueing, ticketing, and patrons in transit would be visible; however, these activities involve constant movement; therefore, the views would be fleeting.

The impact to visual quality and character is minimized for LU-4 because the visual changes of the proposed Project are minimized somewhat by the location of the Chinatown/State Park Station, which is south of the majority of the approximately 32-acre park space. For a project in an urban area, a significant impact to visual character or quality would occur if the project would conflict with applicable zoning, and other regulations governing scenic quality. The proposed Project in LU-4 would be consistent with Los Angeles State Historic Park General Plan aesthetic resources goals to protect and enhance scenic viewsheds and features, and preserve the visitor's experience of the surrounding landscape by minimizing impacts to aesthetic resources, because of the siting of the Chinatown/State Park Station in the southernmost portion of the park away from the open passive park areas. The Project in LU-4 would also be consistent with access and circulation goals by providing an additional mode of transportation that would provide efficient access to the park, as well as create a sense of entry and arrival at the park. Park development goals would be met by providing a new distinctive and high-quality facility with a forward-thinking design.

In addition, the proposed Project would be consistent with the goals and objectives in Chapter 5, Urban Form and Neighborhood Design of the Framework Element of the City of Los Angeles General Plan, the Mobility Plan 2035, as well as the applicable policies related to scenic quality in the Central City North Community Plan.

With regard to Chapter 5, Urban Form and Neighborhood Design, the proposed Project would improve the quality of the public realm through Project design, which would promote accessibility via improved pedestrian pathways that would be complementary and appropriate to the scale and character of the existing buildings in the surrounding area. As illustrated in Figures 5-18 through 5-23 in Appendix A, the proposed Project would be consistent with Objective 5.1 of the Central City North Community Plan pertaining to the preservation of visual links to open space areas, because the proposed Project would form a background feature and would not block views of open space areas. The proposed Project would also provide attractive transit services in compliance with the Mobility Plan 2035.

The proposed Project includes entitlements and approvals to establish land use regulations for the proposed Project alignment to ensure consistent implementation of development standards throughout the Project alignment. The development standards would recognize the Project's unique characteristics, including unique opportunities for public benefits and the unique aspects of an aerial rapid transit system. The design standards included in the proposed Project's entitlements and approvals would enhance the visual identity and character of the proposed Project and its surrounding communities, and would ensure visual compatibility with adjacent development, as well as the Project area's overall community character. Overall, the Project would not conflict with applicable zoning or other regulations governing scenic quality.

In addition, there are no designated scenic vistas in LU-4, as well as no scenic resources in a State scenic highway. The closest designated State scenic highway is SR-2, approximately 11 miles north of the Project alignment. The proposed Project in LU-4 would not have a substantial adverse effect on a scenic vista, and would not substantially damage scenic resources in a State scenic highway. The proposed Project would also enhance the public realm, aesthetic lighting/signage, connections to open space, transit, and community facilities. Therefore, the operation of the proposed Project in LU-4 would not substantially degrade the existing visual character or quality of public views of the site and its surroundings, and the impact would be less than significant.

5.1.2.5 Landscape Unit 5 – North Broadway to SR-110

LU-5 starts at the North Broadway ROW. The proposed Broadway Junction would be at the northern corner of the intersection of North Broadway and Bishops Road (1201 North Broadway). From the Broadway Junction, the proposed Project alignment would travel northwest primarily along Bishops Road, towards SR-110 (Arroyo Seco Parkway). The Broadway Junction is a non-passenger junction that would primarily be on privately owned property, with a portion of the junction and overhead cable infrastructure cantilevered and elevated above the public ROW. The existing building at 1201 N. Broadway would be demolished. The Broadway Junction would be approximately 227 feet long, 60 feet wide, and 98 feet high at its tallest point, with the platform approximately 50 feet above the ground.

KOP 20

KOP 20 (Figure 5-23 in Appendix A) shows the existing viewpoint from the perspective of a pedestrian looking southwest towards Los Angeles State Historic Park, Chinatown, and downtown Los Angeles from the public sidewalk on the southern side of North Broadway on the eastern portion of the historic North Broadway Bridge over the Los Angeles River. The view primarily includes the concrete pedestrian ledge of the bridge, a billboard and street signage, large palm trees, the at-grade Metro L Line (Gold) structure and overhead catenary system, and the northern portion of Los Angeles State Historic Park, which is undeveloped. Visible in the middleground are the trees and grassy area of the park, and one- to two-story commercial/industrial buildings on the eastern side of Spring Street. Other industrial or commercial development, commercial and residential buildings on the northwestern side of North Broadway, Chinatown, and a large portion of the downtown Los Angeles skyline are visible in the background.

KOP 20 (Figure 5-23 in Appendix A) also shows this pedestrian view looking southwest towards Los Angeles State Historic Park, Chinatown, and downtown Los Angeles from the public sidewalk on the southern side of North Broadway on the historic North Broadway Bridge with the visual simulation of the proposed Project. In the simulated view, the overhead canopy of the proposed Chinatown/State Park Station is partially visible in the center and background of the view. The associated cables and cabins are distantly visible over Los Angeles State Historic Park at the midpoint between the proposed Chinatown/State Park Station and the Broadway Junction. The cables would be suspended approximately 46 feet above ground at this location, and the cabins 26 feet above ground (bottom of cabin). Due to the distance from the Chinatown/State Park Station, the station's partially visible overhead canopy and height do not contrast with the area in this view, and appear similar to the height of some of the industrial buildings east of the park. From this view, the station does not represent a noticeable visual change, and would not interrupt views of the downtown Los Angeles skyline and City Hall.

KOP 21

KOP 21 (Figure 5-24 in Appendix A) shows the existing viewpoint from the perspective of a resident or pedestrian looking southwest towards Chinatown and downtown Los Angeles from the public sidewalk on the northwestern side of North Broadway at Solano Avenue. Single- and multi-family residential buildings are adjacent and northwest of KOP 21 (not shown). The view primarily includes the North Broadway and Solano Avenue ROWs, a landscaped wall, and overhead power lines and poles. Older one-story commercial buildings, trees, an extensive chain-linked fence, billboards, decorative and typical light poles, and intervening development are visible in the middleground. The existing view is visually cluttered with numerous elements. A portion of the downtown Los Angeles skyline, as well as other development in Chinatown, is visible in the background.

KOP 21 (Figure 5-24 in Appendix A) also shows this resident or pedestrian view looking southwest towards Chinatown and downtown Los Angeles from the public sidewalk on the northwestern side of North Broadway at Solano Avenue with the visual simulation of the proposed Project. In the simulated view, the proposed aerial gondola cables and cabins are visible crossing above North Broadway in the distance in between Broadway Junction and Chinatown/State Park Station. The cables would be suspended above North Broadway at a height of approximately 65 feet above ground, and the cabins 45 feet above ground (bottom of cabin), descending to the southeast. Neither the Chinatown/State Park Station nor the Broadway Junction would be visible from this view. Due to the distance from the proposed cables and cabins above North Broadway to the location of KOP 21, the visual change is minimally noticeable. Viewers from this KOP, including residents, would still have the partial view of the downtown Los Angeles skyline.

KOP 22

KOP 22 (Figure 5-25 in Appendix A) shows the existing viewpoint from the perspective of a resident or pedestrian looking northeast along North Broadway from the public sidewalk at the northwestern corner of North Broadway and Cottage Home Street, adjacent to a two-story commercial building (not shown). In the foreground of the view are the North Broadway and Cottage Home Street ROWs, a small-scale commercial building, and landscaping. Visible in the middleground are overhead power lines and poles, trees, and a metal fence. The background of the view includes distant views of commercial and residential buildings along North Broadway, industrial/commercial buildings to the east along Spring Street, trees and vegetation in Los Angeles State Historic Park, and the hills in northeast Los Angeles near the community of El Sereno.

KOP 22 (Figure 5-25 in Appendix A) also shows this resident or pedestrian view looking northeast along North Broadway from the public sidewalk at the northwestern corner of North Broadway and Cottage Home Street with the visual simulation of the proposed Project. In the simulated view, the proposed Broadway Junction, with the cables and cabins suspended above ground, are visible in the middleground and background of the view. The proposed cables and cabin gradually descend from the Broadway Junction towards the Chinatown/State Park Station to the east. Cables are suspended 63 feet above ground, and the cabins 43 feet above ground (bottom of cabin) at the property directly south of North Broadway, but north of the Metro L Line (Gold) ROW. As shown in the simulation, the majority of the proposed junction is blocked by existing buildings. However, the portion of the junction that cantilevers elevated and above the North Broadway ROW is noticeable. The junction is a visual change in this view that contrasts with existing development. The cables and cabins would be a new visual element in the environment; however, the cabins would be constantly moving out of view, and the cables have similar characteristics to the

overhead power lines that exist along North Broadway. The proposed Project would not block any unique or scenic views.

KOP 23

KOP 23 (Figure 5-26 in Appendix A) shows the existing viewpoint from the perspective of a resident and pedestrian looking south from Savoy Street towards Bishops Road from the public sidewalk adjacent to 451 Savoy Street (historic). This location is adjacent to single- and multi-family residential buildings. The view primarily includes the Savoy Street and Bishops Road ROWs, a multi-family residential building, and a fenced property with trees. Overhead power lines and poles are visible along Bishops Road. Trees and red buildings of the Cathedral High School campus are visible in the background. Specifically, the building shown consists of the recently constructed 39,475-square-foot Arts Complex, which is 54 feet tall.

KOP 23 (Figure 5-26 in Appendix A) also shows this resident and pedestrian view looking south from Savoy Street towards Bishops Road from the public sidewalk adjacent to 451 Savoy Street with the visual simulation of the proposed Project. In the simulated view, the proposed Broadway Junction is visible at the top and right of the view. The junction would primarily be on privately owned property, with a portion of the junction and overhead cable infrastructure cantilevered and elevated above the public ROW. The overhead canopy appears rounded, and the height and massing of the junction would be greater than other existing structures from this view, such as the adjacent two-story multi-family residential building. The junction represents a new element in the visual environment, and would be noticeable to residents, because it would be approximately 74 feet taller than the adjacent existing residential building. The junction would be more consistent with the 54-foot-tall Cathedral High School Arts Complex, being only 44 feet taller than the complex. The large scale of the proposed junction as compared to the adjacent small-scale residential uses on Savoy Street, as well as the narrower width of the street compared to other areas along the proposed Project, result in a prominent intrusion to the visual setting from this view. New trees and landscaping would be planted below the junction along Savoy Street to replace the existing tall and opaque fencing. This would provide a visual buffer for the pedestrian and resident viewers from this KOP and would represent a visual improvement.

In addition, a simulation of this view is included that shows the proposed Broadway Junction in the context of potential future multi-level mixed-use residential building that has been approved, and could be developed pursuant to existing entitlements. The potential development is in the background on the left, and is not a part of the Project. Because such development may occur, the simulation shows the potential for the proposed junction's integration with the adjacent approved development. The height and mass of the potential development and the proposed junction appear to be similar. The large scale of the proposed junction as compared to the adjacent small-scale residential uses on Savoy Street, as well as the narrower width of the street compared to other areas along the proposed Project, result in visual intrusion from this view. As discussed above, the junction would be more consistent with the Cathedral High School Arts Complex. However, new trees and landscaping are provided below the junction along Savoy Street to replace the existing tall and opaque fencing. This would provide a visual buffer for the pedestrian and resident viewers from this KOP, and would represent a visual improvement.

As previously mentioned, visual impacts under the L.A. CEQA Thresholds Guide (2006) are assessed based on changes to public views. Therefore, analysis of resident viewer groups is provided only for informational purposes, because the L.A. CEQA Thresholds Guide (2006) does not protect private views from residential properties.

KOP 24

KOP 24 (Figure 5-27 in Appendix A) shows the existing viewpoint from the perspective of a pedestrian (includes students) looking south along Bishops Road towards Savoy Street from the public sidewalk on the southwestern side of the street adjacent to the main entrance to Cathedral High School. The view primarily includes the Bishops Road ROW, grass and landscaping, typical poled lighting, overhead power lines and poles, and a fenced property with trees. The middleground of the view includes a multi-family residential building, a black office building, and the North Broadway ROW. The recently constructed 39,475-square-foot Cathedral High School Arts Complex, which is 54 feet tall, is on the right, but interrupted by a mature tree. Visible in the distance are the commercial/industrial buildings down-slope along the eastern side of Spring Street.

KOP 24 (Figure 5-27 in Appendix A) also shows this pedestrian (including students) view looking south along Bishops Road towards Savoy Street from the public sidewalk on the southwestern side of the street with the visual simulation of the proposed Project. In the simulated view, the proposed Broadway Junction is visible in the center. The junction would be 98 feet tall, with the cable suspended above ground. The large overhead canopy, as well as the overall height and mass of the new junction, stands out as being larger than other existing structures from this view. The junction represents a new element in the visual environment and would be noticeable to residents, because it would be approximately 74 feet taller than the adjacent existing residential building. The junction would be more consistent with the 54-foot-tall Cathedral High School Arts Complex, being only 44 feet taller than the complex. The large scale of the proposed junction as compared to the adjacent small-scale residential uses on Savoy Street, as well as the narrower width of the street compared to other areas along the proposed Project, results in a prominent intrusion in the visual environment from this view. New trees and landscaping would be planted below the junction along both Savoy Street and Bishops Road to replace the existing tall and opaque fencing. This would provide a visual buffer for the viewers from this KOP, and would represent a visual improvement.

In addition, a simulation of this view is included that shows the proposed Broadway Junction in the context of potential future multi-level mixed-use residential building that has been approved, and could be developed pursuant to existing entitlements. The potential development is in the background on the left, and is not a part of the Project. Because such development may occur, the simulation shows the potential for the proposed junction’s integration with the adjacent approved development. The simulation also shows potential additional circulation space that may be included as part of the junction. The height and mass of the potential development and the proposed junction appear to be similar. The large scale of the proposed junction with the additional development, as compared to the adjacent small-scale residential uses on Savoy Street, represents a visual change and visual intrusion. This is particularly due to the narrower width of the street compared to other areas along the proposed Project. The height of the proposed junction and development appears to be taller than the previous simulation described directly above. However, new trees and landscaping are provided below the junction along both Savoy Street and Bishops Road to replace the existing tall and opaque fencing. This would provide a visual buffer for the viewers from this KOP, and would represent a visual improvement.

KOP 25

KOP 25 (Figure 5-28 in Appendix A) shows the existing viewpoint from the perspective of a resident or pedestrian looking northeast from the public sidewalk along Cottage Home Street, northwest of North Broadway, adjacent to multi-family residential buildings. In the foreground of

the view is the Cottage Home Street ROW. Visible in the middleground are overhead power lines and poles, small-scale multi-family residential buildings with gates surrounding the properties, typical roadway light poles, and a tall wall separating the street from the SR-110 adjacent to the northwest. The background of the view includes views of SR-110 signage, mature trees and vegetation, and the Elysian Park hills, including the red and white antenna tower. The existing view is visually cluttered with numerous elements.

KOP 25 (Figure 5-28 in Appendix A) also shows this resident or pedestrian view looking northeast from the public sidewalk along Cottage Home Street with the visual simulation of the proposed Project. In the simulated view, the proposed Stadium Tower on the left is blocked by existing mature trees. The cables extending from this tower would be suspended approximately 94 feet above ground over the intersection of Cottage Home Street and Bishops Road, and the cabins would be 74 feet above ground (bottom of cabin). Cables and cabins are visible in the middleground and center of the view. The cables and cabins would be a new visual element in the environment, and residents in the area would notice the visual change; however, the cabins would be constantly moving out of view, and the cables have similar characteristics to the overhead power lines that are prevalent in the view. No scenic or unique views would be interrupted or blocked.

Landscape Unit 5 Conclusion

As described previously in Table 4-2, the existing visual quality for LU-5 is considered to be moderately low. Overall, the operation of the proposed Project in LU-5 would represent a change in views, visual quality, and character as compared to existing conditions. However, the proposed Project is in an urban area that currently has a mix of architectural styles, landscaping concepts, building materials, and colors. Many of the residential and commercial buildings in this LU are older, while there are several small office buildings that have been updated or are adaptive re-use spaces. Although partial views of the downtown Los Angeles skyline are available from certain vantage points, no designated State scenic highways or designated scenic vistas are present in LU-5. Further, as with other views in the Project area, although the buildings are visually prominent, they lie in heavily urbanized areas, and would not have a substantial adverse effect on prominent views of valued visual resources.

In addition, views of Elysian Park and Radio Hill Gardens are currently interrupted by existing development and overhead power transmission poles and lines. Therefore, the proposed Project would not result in a substantial adverse effect on views of these open spaces.

The viewer group of pedestrians, including pedestrians originating from Cathedral High School, would have a low to moderate sensitivity to the visual change, and may have less of a personal investment in the visual appearance of the proposed Project in LU-5 because they are primarily visiting, and do not necessarily reside in the area, and also would have fleeting and/or temporary views of the proposed Project.

Resident viewer groups, including residents of single- and multi-family residences on the northwestern side of North Broadway and Savoy Street, may have moderate to high sensitivity to the visual change, particularly due to the location of the proposed Broadway Junction, because some along Bishops Road and Savoy Street would have direct views of the proposed junction either from the public sidewalk adjacent to the residences, from front or rear yard areas, or potentially from inside their residences. The new junction would represent a new and large element in the visual environment for residents due to the contrast in the mass and height of the junction compared to adjacent small-scale residential structures. However, new trees and

landscaping are provided below the junction along both Savoy Street and Bishops Road to replace the existing opaque fencing. This would provide a visual buffer, and would represent a visual improvement.

As previously mentioned, visual impacts under the L.A. CEQA Thresholds Guide (2006) are assessed based on changes to public views. Therefore, analysis of resident viewer groups is provided only for informational purposes, because the L.A. CEQA Thresholds Guide (2006) does not protect private views from residential properties.

LU-5 is characterized by commercial, office, and some residential uses, as well as overhead power transmission lines and poles and visible billboards. As discussed in Section 2.0, *Project Description*, the proposed Project's design goal is to develop a common architectural design that unifies the overall aerial gondola system, while allowing for each major component to contribute to the respective localized urban condition. As discussed previously, the Broadway Junction was designed to create a pattern evocative of layered bamboo canes, while still achieving a transparency that brings lightness to the form. In addition, the canopy of the Broadway Junction was designed to reflect warm tones and detailing that is complementary to the existing structures and the residential fabric in the surrounding urban environment in LU-5.

The proposed Project in LU-5 would also introduce new visually interesting landscaping, and trees would replace the fencing currently facing residents on Savoy Street. Although the Broadway Junction would represent a new tall visual element, the junction would be comparable in height to future development approved to be constructed in the area, and would not block any scenic views or alter a designated scenic area. In addition, cabins would be constantly moving in and out of view, and the cables have similar characteristics to the overhead power lines that are prevalent in views in this area. Therefore, the proposed cables and cabins would not significantly impact views in this area.

The changes to visual quality and character would be noticeable related to the proposed Broadway Junction due to its contrast in scale with the existing adjacent residential buildings. However, for a project in an urban area, a significant impact to visual character or quality would occur if the project would conflict with applicable zoning and other regulations governing scenic quality. The proposed Project in LU-5 would primarily be above the public ROW, with portions above private property, in which zoning regulations related to scenic quality do not apply. However, the proposed foundation for the Broadway Junction would be on private properties that are currently zoned C2 (commercial) and R3 (multi-family dwelling), but do not include zoning regulations governing scenic quality.

The proposed Project includes entitlements and approvals to establish land use regulations for the proposed Project alignment to ensure consistent implementation of development standards throughout the Project alignment. The development standards are in recognition of the Project's unique characteristics, including unique opportunities for public benefits and the unique aspects of an aerial rapid transit system. The design standards included in the proposed Project's entitlements and approvals would enhance the visual identity and character of the proposed Project and its surrounding communities, and would ensure visual compatibility with adjacent development, as well as the Project area's overall community character. Overall, the Project would not conflict with applicable zoning or other regulations governing scenic quality.

The proposed Project would also be consistent with the goals and objectives in Chapter 5, Urban Form and Neighborhood Design of the Framework Element of the City of Los Angeles General Plan, the Mobility Plan 2035, as well as the applicable policies related to scenic quality in the

Central City Community Plan. With regard to Chapter 5, Urban Form and Neighborhood Design, the proposed Project would improve the quality of the public realm through Project design, which would promote accessibility via improved pedestrian pathways that would be complementary, and appropriate to the scale and character of the existing buildings in the surrounding area. As illustrated in Figures 5-24 through 5-29, the proposed Project would not conflict with Objective 5.1 of the Central City North Community Plan pertaining to the preservation of visual links to open space areas, because the Project would form a background feature, but would not block views of open space areas. The Project would also provide attractive transit services in compliance with the Mobility Plan 2035.

There are no designated scenic vistas in LU-5, as well as no scenic resources in a State scenic highway. The proposed Project in LU-5 would not have a substantial adverse effect on a scenic vista, and would not substantially damage scenic resources in a State scenic highway. The operation of the proposed Project in LU-5 would not substantially degrade the existing visual character or quality of public views of the site and its surroundings, and the impact would be less than significant.

5.1.2.6 Landscape Unit 6 – SR-110 to Dodger Stadium

LU-6 begins at SR-110 (Arroyo Seco Parkway) as the Project alignment travels northwest above the freeway towards Dodger Stadium. The proposed Stadium Tower would be on hillside private property north of Stadium Way between the Downtown Gate entrance road to Dodger Stadium and SR-110. The northern terminus of the system would be in a parking lot at the Dodger Stadium property, where the proposed Dodger Stadium Station would be constructed. The Stadium Tower would stand 179 feet tall, with the cable suspended approximately 145 feet and 152 feet above ground at the southern and northern approaches, respectively. The Dodger Stadium Station would be approximately 194 feet long, 80 feet wide, and 74 feet high at its tallest point. Queueing and ticketing/fare checking would be located adjacent to the station.

KOP 26

KOP 26 (Figure 5-29 in Appendix A) shows the existing viewpoint from the perspective of a motorist or commuter looking southwest towards downtown Los Angeles from southbound SR-110 (Arroyo Seco Parkway). Visible in both the foreground and middleground is the freeway ROW, hillside topography, mature trees, and vegetation, particularly on the right side of the freeway, as well as a fenced pedestrian walkway on the left that parallels the freeway and includes decorative light poles. A partial view of the downtown Los Angeles skyline is visible in the background, and is interrupted by mature trees along the freeway in the distance.

KOP 26 (Figure 5-29 in Appendix A) also shows this motorist or commuter view looking southwest towards downtown Los Angeles from southbound Arroyo Seco Parkway with the visual simulation of the proposed Project. In the simulated view, the Stadium Tower is visible. The Stadium Tower would be on hillside private property north of Stadium Way between Downtown Gate and SR-110, and would stand 179 feet tall with the visible cable suspended approximately 104 feet above ground over southbound SR-110. The height of the new tower would be a visually prominent feature in the Los Angeles skyline, and due to the proximity in this view, appears to be taller than the buildings in the partial view of downtown Los Angeles, although the tower is not actually

taller.[10] The massing also represents a visual change at a location that does not have existing structures. The proposed cables and cabins would be noticeable to motorists on the freeway; however, the cabins would be moving in and out of view over short periods of time. From this view, the proposed Project represents a noticeable visual change, and interrupts views of the downtown Los Angeles skyline. Currently, drivers' views of the partial downtown skyline from this vantage point are short and fleeting. This would remain the case with the implementation of the proposed Project.

KOP 27

KOP 27 (Figure 5-30 in Appendix A) shows the existing viewpoint from the perspective of a Dodger Stadium patron or pedestrian looking southeast from the Dodger Stadium parking area east of the stadium. The prominent view includes the large asphalt surface parking area. Visible in the middleground and background are numerous small traffic or parking control cones or permanent structures, tall parking light poles, trees and other vegetation, and a vegetated sloped area on the left. The Downtown Gate entrance is also on the left side of the view, including several distant directional signs.

KOP 27 (Figure 5-30 in Appendix A) also shows this Dodger Stadium patron or pedestrian view looking southwest from in the Dodger Stadium parking area east of the stadium (not shown) with the visual simulation of the proposed Project. In the simulated view, the proposed Dodger Stadium Station and Stadium Tower are visible, along with other improvements. The Dodger Stadium Station would be in the southeastern portion of the Dodger Stadium property near the Downtown Gate. This station would be approximately 194 feet long, 80 feet wide, and 74 feet high at its tallest point. Implementation of the Dodger Stadium Station would require the removal and replacement of landscaping.

The station's overhead canopy and the mass of the new station and adjacent tower are noticeable visual changes to the view. The modern architectural style of the station is evident with the use of translucent and perforated materials, as well as the geometric lines of the structure. The station and tower represent a large element in the visual environment where there were previously no structures. Pedestrians and patrons at Dodger Stadium would notice this change, but are not anticipated to have sensitivity to this change, because they would be there only temporarily for activities related to the stadium. No unique or scenic views would be blocked or interrupted by the proposed station from this view.

KOP 28a

KOP 28a (Figure 5-31 in Appendix A) shows the existing viewpoint from the elevated perspective from inside a gondola cabin looking west towards Dodger Stadium from approximately above SR-110, adjacent to the location of the proposed Stadium Tower. In the foreground of the view are sloped areas with vegetation and mature trees, and the Downtown Gate entrance roadway and signage. Visible in the middleground is the large surface parking area, as well as sporadic landscaping and trees. The background includes a view of Dodger Stadium, including numerous tall light poles for bright sports field lighting, adjacent tall palm trees and landscaping, as well as the Elysian Park hills, including the Angels Point lookout.

[10] The U.S. Bank Tower in downtown Los Angeles, which is visible in the existing and simulated view of KOP 26, is 72 stories or 1,018 feet in height.

KOP 28a (Figure 5-31 in Appendix A) also shows this viewpoint from the elevated perspective from inside a gondola cabin looking west towards Dodger Stadium with the visual simulation of the proposed Project. This cabin view is at approximately 132 feet above ground (bottom of cabin) and is directly at the northern approach of the Stadium Tower. The proposed Dodger Stadium Station is prominent in the view with the large overhead canopy, as well as the cables visible above and ahead of the cabin. A unique or scenic view would not be interrupted or blocked. Views to Dodger Stadium would not be impacted. This simulated view illustrates a benefit of the proposed Project, which is the elevated views that aerial gondola passengers would experience of surrounding trees and of Dodger Stadium.

KOP 28b

KOP 28b (Figure 5-32 in Appendix A) shows the existing viewpoint from the elevated perspective from inside a gondola cabin looking southwest along Stadium Way, adjacent to SR-110, from just southeast of the proposed Stadium Tower. The foreground of the view includes street and freeway ROWs, mature trees and other vegetation, and a portion of the Dodger Stadium parking area. Visible in the middleground is the development in the Chinatown community. Visible in the background is a portion of the downtown Los Angeles skyline. This view shows downtown Los Angeles and parts of Chinatown from an elevated perspective.

KOP 28b (Figure 5-32 in Appendix A) also shows this viewpoint from the elevated perspective from inside a gondola cabin looking southwest along Stadium Way, adjacent to SR-110, with the visual simulation of the proposed Project. This cabin view is at approximately 125 feet above ground (bottom of cabin) directly at the southern approach to the proposed Stadium Tower. This simulated view illustrates a benefit of the proposed Project, which is the elevated views that aerial gondola passengers would experience of the downtown Los Angeles skyline and portions of Chinatown.

KOP 29

KOP 29 (Figure 5-33 in Appendix A) shows the existing viewpoint from the perspective of a motorist, pedestrian, or resident looking northeast along Stadium Way from the public sidewalk on the western side of the street at the intersection with Curtis Street. KOP 29 is adjacent to single- and multi-family residences on both the eastern and western sides of the street. In the foreground of the view is the Stadium Way public ROW, which exhibits multiple cracks and unevenness. In addition, overhead power transmission lines and poles, as well as residential property fencing, are visible in the foreground. In the middleground, chain-linked fencing is visible on the left, as well as additional overhead power transmission lines and poles. Visible in both the middleground and background are trees and vegetation, signage, and standard roadway light poles.

KOP 29 (Figure 5-33 in Appendix A) also shows this motorist, pedestrian, or resident view looking northeast along Stadium Way from the public sidewalk on the western side of the street at the intersection with Curtis Street, with the visual simulation of the proposed Project. In the simulated view, the proposed Stadium Tower, cables, and cabin in the center are the prominent features in the background of the view. The proposed Stadium Tower would be 179 feet tall with cables suspended 159 feet above ground at the southern approach directly south of the tower. As shown in the simulation, the proposed tower would be a noticeable visual change to the view. Residents along Stadium Way would have views of the tower from their neighborhood. The modern architectural style of the tower is evident and differs from the style of the older structures visible in the view. However, the height of the tower appears to be consistent with some of the existing

tall trees in the view. The proposed Project would not block any unique or scenic views to the northeast.

As previously mentioned, visual impacts under the L.A. CEQA Thresholds Guide (2006) are assessed based on changes to public views. Therefore, analysis of resident viewer groups is provided only for informational purposes, because the L.A. CEQA Thresholds Guide (2006) does not protect private views from residential properties.

KOP 30

KOP 30 (Figure 5-34 in Appendix A) shows the existing viewpoint from the perspective of a motorist, pedestrian, or resident view looking southwest along Amador Place from the northeastern side of Solano Avenue on the public sidewalk. KOP 30 is adjacent to single- and multi-family residences on the southwestern side of Solano Avenue, and Solano Avenue Elementary School on both the southeastern side of Amador Place and the northeastern side of Solano Avenue (behind the KOP). In the foreground of the view is the Solano Avenue and Amador Place public ROWs, overhead power transmission lines and poles, a standard roadway light pole, and signage. Visible in the middleground is a multi-family residential building and surrounding brown fencing, the Amador Place public ROW, small street trees, and tall chain-linked fencing surrounding the Solano Avenue Elementary School playground area. A small parking lot, parking light pole, standard roadway light poles, signage, vegetation, mature trees, and a hill are visible in the background.

KOP 30 (Figure 5-34 in Appendix A) also shows a motorist, pedestrian, or resident view looking southwest along Amador Place from the northeastern side of Solano Avenue on the public sidewalk, with the visual simulation of the proposed Project. The proposed Project, including the Stadium Tower and Dodger Stadium Station, are southwest from the KOP, beyond the hill that is visible in the view. As the simulation illustrates, the proposed Stadium Tower and Dodger Stadium Station would not be visible from this view. Views of the proposed Project would be blocked by the existing hill and topography. Therefore, there would be no noticeable visual change from this viewpoint.

As previously mentioned, visual impacts under the L.A. CEQA Thresholds Guide (2006) are assessed based on changes to public views. Therefore, analysis of resident viewer groups is provided only for informational purposes, because the L.A. CEQA Thresholds Guide (2006) does not protect private views from residential properties.

Landscape Unit 6 Conclusion

As described previously in Table 4-2, the existing visual quality for LU-6 is considered to be moderate. Overall, the operation of the proposed Project in LU-6 would represent a change in views, visual quality, and character compared to existing conditions. However, the proposed Project is in an urban area that currently has a mix of architectural styles and building materials and colors, including Dodger Stadium and Arroyo Seco Parkway. Although partial views of the downtown Los Angeles skyline are available from certain vantage points, no designated scenic vistas are present in LU-6. Further, as with other views in the Project area, although the buildings are visually prominent, they lie in heavily urbanized areas, and would not have a substantial adverse effect on prominent views of valued visual resources.

In addition, views of Elysian Park are currently interrupted by existing development and overhead power transmission poles and lines. Therefore, the proposed Project would not result in a substantial adverse effect on views of these open spaces.

Motorist, pedestrian, and Dodger Stadium patron viewer groups would have a low to moderate sensitivity to the visual change, and may have less of a personal investment in the visual appearance of the proposed Project in LU-6 because they are primarily visiting, and do not necessarily reside in the area, or are traveling on the Arroyo Seco Parkway and would have fleeting and/or temporary views of the Project components. Because of the highly urban characteristics of the area, any motorists, pedestrians, or Dodger Stadium patrons that may live in LU-6 are accustomed to living in close proximity to numerous transit options, technologies, and modes, as well as in an area with convenient access to freeways and downtown Los Angeles.

In addition, the implementation of the proposed Dodger Stadium Station would not alter the aesthetics or structure of Dodger Stadium. The proposed Stadium Tower, cables, and cabins would be visible to motorists on Arroyo Seco Parkway/SR-110 both on the northbound and southbound sides. However, although noticeable, there are numerous mature trees that assist in softening the view. The visual change may nonetheless result in perceived visual intrusion to these viewers. The tower would interrupt the partial view of the downtown Los Angeles skyline for southbound Arroyo Seco Parkway/SR-110 motorists from certain angles; however, the view would be fleeting, the vehicles would travel past the tower relatively quickly, and the view of the skyline would be uninterrupted. In addition, cabins would be constantly moving in and out of view, and the cables have similar characteristics to the overhead power lines that are prevalent in views in this area. Therefore, the proposed cables and cabins would not significantly impact views in this area.

Resident viewer groups along Stadium Way, over 1,200 feet southwest of the proposed Stadium Tower, would have moderate sensitivity to the visual change. The new tower would represent a new element in the visual environment for residents when viewing north. However, their view of the new tower would be highly interrupted by existing overhead power transmission poles and lines, trees and vegetation, and the lower portion of the hill on which Dodger Stadium is located. The visual change would not result in perceived visual intrusion to these viewers. In addition, resident viewer groups along Solano Avenue and Amador Place would not experience visual change, because the proposed Project would be blocked from view due to the existing hilly topography.

As previously mentioned, visual impacts under the L.A. CEQA Thresholds Guide (2006) are assessed based on changes to public views. Therefore, analysis of resident viewer groups is provided only for informational purposes, because the L.A. CEQA Thresholds Guide (2006) does not protect private views from residential properties.

The change to visual quality and character would be noticeable related to the proposed Stadium Tower. However, for a project in an urban area, a significant impact to visual character or quality would occur if the project would conflict with applicable zoning and other regulations governing scenic quality. The proposed base for the Stadium Tower would be on private property that is currently zoned A1 (Agriculture). The proposed Dodger Stadium Station would be on the private Dodger Stadium property, which is also currently zoned A1. The Stadium Tower and Dodger Stadium Station sites are subject to a Conditional Use Permit related to the operation of Dodger Stadium, which allows the development of ancillary structures and uses, including “mass transportation service.” An existing Conditional Use Permit in place related to the operation of Dodger Stadium would allow for construction of the Stadium Tower and Dodger Stadium Station

at their respective proposed locations. There are no applicable zoning regulations governing scenic quality for these sites.

LU-6 is characterized by a variety of transportation/public facility uses, residential, and open space uses with varying architectural styles. In addition, this area also contains visually distinct structures, such as the Arroyo Seco Parkway/SR-110 and Dodger Stadium. As discussed previously, the proposed Project's design goal is to develop a common architectural design that unifies the overall aerial gondola system, while allowing for each major component to contribute to the respective localized urban condition. The Dodger Stadium Station and Stadium Tower would consist of an architectural design that provides visual lightness to the form to complement the existing buildings in this area. In addition, the neutral light-tone gray colors and material finishes of the Dodger Stadium Station and Stadium Tower were selected to complement the surrounding urban environment in LU-6, and to not distract from existing visually distinct structures, such as Dodger Stadium.

The Stadium Tower would interrupt views of the downtown skyline for only a limited period of time for motorists traveling southbound on Arroyo Seco Parkway/SR-110. Also, the Dodger Stadium Station would not interrupt views of Dodger Stadium. Therefore, the operation of the proposed Project in LU-6 would not substantially degrade the existing visual character or quality. The proposed Project would be consistent with the goals and objectives in Chapter 5, Urban Form and Neighborhood Design of the Framework Element of the City of Los Angeles General Plan, the Mobility Plan 2035, as well as the applicable policies related to scenic quality in the Silver Lake – Echo Park – Elysian Valley Community Plan (see Section 3.1 above).

With regard to Chapter 5, Urban Form and Neighborhood Design, the proposed Project would improve the quality of the public realm through Project design, which would promote accessibility via improved pedestrian pathways that would be complementary and appropriate to the scale and character of the existing buildings in the surrounding area. As illustrated in Figures 5-30 through 5-35 of Appendix A, the proposed Project would provide color, lighting, and surface texture accents and complementary building materials to building walls and facades, consistent with architectural themes of the neighborhood for consistency with the Silver Lake – Echo Park – Elysian Valley Community Plan.

The proposed Project includes entitlements and approvals to establish land use regulations for the proposed Project alignment to ensure consistent implementation of development standards throughout the Project alignment. The development standards would recognize the Project's unique characteristics, including unique opportunities for public benefits and the unique aspects of an aerial rapid transit system. The design standards included in the proposed Project's entitlements and approvals would enhance the visual identity and character of the proposed Project and its surrounding communities, and would ensure visual compatibility with adjacent development, as well as the Project area's overall community character. Overall, the proposed Project would not conflict with applicable zoning or other regulations governing scenic quality.

There are no designated scenic vistas in LU-6, as well as no scenic resources in a State scenic highway. The proposed Project in LU-6 would not have a substantial adverse effect on a scenic vista, and would not substantially damage scenic resources in a State scenic highway. Both Stadium Tower and Dodger Stadium Station would not block any designated scenic views. The Stadium Tower would interrupt views of the downtown skyline for only a limited period of time for motorists traveling southbound on SR-110. Also, the Dodger Stadium Station would not interrupt views of Dodger Stadium. The operation of the proposed Project in LU-6 would not substantially

degrade the existing visual character or quality of public views of the site and its surroundings, and the impact would be less than significant.

5.1.2.7 Light and Glare

The Project area is urbanized and has a high level of existing ambient lighting. Project lighting would include low-level lighting for security and wayfinding purposes adjacent to and in the stations, junction, and towers, in cabins, at the vertical circulation, and areas for ticketing, fare checking, and queueing. In addition, low-level lighting to accent signage, architectural features, landscaping, adjacent pedestrian plazas, and potential mobility hubs would be installed at the stations, junction, and towers. Lighting would also be provided underneath the elevated stations and junction.

A Lighting Study (Appendix C) was conducted to determine the proposed Project's potential environmental impacts resulting from the Project's lighting and signage program. The Lighting Study evaluated the Project with respect to light trespass and glare. For light trespass, the Lighting Study analyzed the Project for compliance with the LAMC, CALGreen, the CASP, and the RIO.

The Lighting Study concluded that the proposed Project's lighting would comply with the LAMC light trespass illuminance requirements, and that the Project's lighting would comply with CALGreen. The Project's sign lighting is exempt from CALGreen. In addition, the proposed Project's lighting and signage would comply with the CASP requirements where they apply at the Chinatown/State Park Station because the Project's light fixtures and signage are exempt from the CASP exterior lighting requirements.

The Lighting Study determined that although the Project's lighting exceeds the RIO threshold in certain locations, there is no light trespass impact, because the existing lighting at the areas adjacent to the proposed Project in the RIO are urban, with existing lighting that is greater than the RIO threshold. Furthermore, the portions of the Project's lighting that exceed the RIO are more than 2,600 feet from the LA River and therefore have no direct influence on the lighting in or adjacent to the LA River. In addition, as discussed in Chapter 2.0, Project Description, in Subsection 2.11, Required Permits and Approvals, the Project Sponsor is seeking to create a Specific Plan pursuant to LAMC Section 11.5.7 to provide for consistent application of Project design standards, limitations, and operational measures in recognition of the proposed Project's unique characteristics, including unique opportunities for public benefits and unique aspects of an ART system. With approval of the Specific Plan, which would include its own lighting standards, there would be no conflict with the RIO. The RIO's requirements do not apply to sign lighting. Accordingly, the Project's impacts with respect to light trespass would be less than significant.

Glare impacts would not be anticipated related to low-level lighting and the other lighting proposed with the Project, because glare typically occurs when a sensitive use has a direct line-of-sight to a bright light source. The Lighting Study concluded that the Project's lighting would be less than high-contrast existing conditions, and would not create glare at residential, sensitive sites, or roadway sites. In addition, Project signage would be less than high-contrast existing conditions, and would not create glare at residential, sensitive sites, or roadway sites. The Lighting Study also concluded that the proposed Project would not create a new source of glare to drivers on adjacent streets and freeways.

As listed in Section 7.0 below, the proposed Project would also include the following project design features:

- Building Lighting will not exceed 60 watts.
- Building Lighting outdoor luminaires will not exceed 6200 initial lumens.
- Sign Lighting luminance will not exceed 10,000 candelas per m^2 (cd/m^2) during the day from after sunrise until 45 minutes prior to sunset. Sign Lighting will not exceed 300 cd/m^2 at night from sunset until 45 minutes prior to sunrise.
- Sign Lighting luminance shall transition smoothly from daytime luminance to nighttime luminance and vice versa.
- Illuminated signs that have the potential to exceed 300 cd/m^2 will include an electronic control mechanism to reduce sign luminance to 300 cd/m^2 at any time when ambient sunlight is less than 100 footcandles (fc).

Therefore, the proposed Project would not create a substantial source of light or glare that would result in adverse effects to daytime/nighttime views of the area, and would comply with applicable City regulations related to light and glare. Therefore, impacts would be less than significant.

5.1.2.8 Shading

This analysis is included per recommendations in the L.A. CEQA Thresholds Guide (2006); however, shading is not a required analysis area in the CEQA Guidelines. Shadows are cast in a clockwise direction from west/northwest to east/northeast, from the morning to afternoon hours, during the Winter, Spring, Summer, and Fall seasons of the year. During the Winter, the sun is lower in the sky and shadows are at their maximum coverage lengths. Generally, the shortest shadows are cast during the Summer, and grow increasingly longer until the Winter. Typically, shadow coverage is a concern when a large structure is placed adjacent and west of a shade-sensitive use. According to the L.A. CEQA Thresholds Guide (2006), shade-sensitive uses include routinely useable outdoor spaces associated with residential, recreational, or institutional (e.g., schools, convalescent homes) land uses; commercial uses such as pedestrian-oriented outdoor spaces or restaurants with outdoor eating areas; nurseries; and existing solar collectors.

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

A shadow analysis is provided below for each of the vertical elements included as part of the proposed Project. Shadow diagrams for each vertical element (except Dodger Stadium Station) in each of the four seasons are provided in Appendix B – Shadow Diagrams, and are referred to as needed in the analysis below. Shadow diagrams for Winter (late October to early April) show proposed shadows on the hour from 9:00 a.m. through 3:00 p.m. Shadow diagrams for the Spring, Summer, and Fall seasons (early April to late October) show proposed shadows on the hour from 9:00 a.m. through 5:00 p.m. The shadow diagrams used a three-dimensional model of the proposed Project, and are provided only for analysis purposes. The diagrams are not meant to represent the final design of the proposed Project, and should be considered conceptual at this time.

Shadow diagrams were not required to be completed for the Dodger Stadium Station, in accordance with the shadow analysis screening criteria in the L.A. CEQA Thresholds Guide (2006), which is described in the analysis below. In addition, shadow diagrams and analysis do

not consider the proposed cables and cabins. The cables would be too narrow to cast noticeable shadows, and the cabins would be constantly moving along the cables and would not cast shadows onto any one use for a substantial amount of time.

Alameda Station

Winter shadow diagrams for the proposed Alameda Station are depicted on Figure 1 through Figure 4 of Appendix B. A small portion of the Olvera Street outdoor marketplace, the outdoor courtyard at the Avila Adobe, and Placita de Dolores, on the western side of Alameda Street, would be shaded by the new station for only one hour starting at 9:00 a.m. A small useable outdoor space, including eating tables and umbrellas, which is on the rooftop of the Mozaic Apartments on the eastern side of Alameda Street, would be partially and then fully shaded from 12:00 p.m. to 3:00 p.m., for a total of three hours. This small outdoor space has some existing shading from the adjacent rooftop areas of the apartment building. A ground-floor outdoor courtyard area in the center of the Mozaic Apartments would be shaded for only one hour at 3:00 p.m. However, this courtyard experiences a large amount of existing shading from the surrounding apartment building structure above.

Spring shadow diagrams for the proposed Alameda Station are depicted on Figure 5 through Figure 9 of Appendix B. A portion of Placita de Dolores on the western side of Alameda Street would be shaded by the new station for two hours from 9:00 a.m. to 11:00 a.m. The small useable outdoor space on the rooftop of the Mozaic Apartments would be shaded for three hours from 2:00 p.m. to 5:00 p.m.

Summer shadow diagrams for the proposed Alameda Station are depicted on Figure 10 through Figure 14 of Appendix B. A portion of Placita de Dolores on the western side of Alameda Street would be shaded by the new station for two hours from 9:00 a.m. to 11:00 a.m. The small useable outdoor space on the rooftop of the Mozaic Apartments on the eastern side of Alameda Street would be shaded for two hours from 3:00 p.m. to 5:00 p.m.

Fall shadow diagrams for the proposed Alameda Station are depicted on Figure 15 through Figure 19 of Appendix B. A portion of Placita de Dolores on the western side of Alameda Street would be shaded by the new station for two hours from 9:00 a.m. to 11:00 a.m. The small, useable outdoor space on the rooftop of the Mozaic Apartments on the eastern side of Alameda Street would be shaded for three hours from 2:00 p.m. to 5:00 p.m. A ground-floor outdoor courtyard area in the center of the Mozaic at Union Station Apartments, directly east of the Mozaic Apartments, would be shaded for only one hour at 5:00 p.m. However, similar to the ground-floor courtyard in the Mozaic Apartments, the courtyard in the Mozaic at Union Station Apartments experiences a large amount of existing shading from the surrounding apartment building structure above.

Based on the analysis above, the proposed Alameda Station would result in the shading of a shade-sensitive use for more than three hours between the hours of 9:00 a.m. and 3:00 p.m. Pacific Standard Time (between late October and early April). During Winter, the small useable outdoor space on the rooftop of the Mozaic Apartments would be partially and then fully shaded for a total of three hours. However, this outdoor space has existing shading from the adjacent apartment roof structure, and the entire space would not be fully shaded by the station for the entire three hours. The proposed Alameda Station would not result in the shading of shade-sensitive uses for more than four hours between the hours of 9:00 a.m. and 5:00 p.m. Pacific Daylight Time (between early April and late October). Therefore, shadow impacts from the Alameda Station would be less than significant.

Alameda Tower

Winter shadow diagrams for the proposed Alameda Tower are depicted on Figure 20 through Figure 23 of Appendix B. The shadow diagrams show that no shade-sensitive uses would be shaded by the proposed Alameda Tower. Some existing commercial and industrial uses would experience minor shading along the eastern and western sides of Alameda Street. The base of the proposed tower would be in public ROW, in the Alameda Triangle, between Alameda Street, North Main Street, and Alhambra Avenue. The Alameda Triangle includes areas of grass and trees, but would not be considered a useable outdoor space due to its small size and lack of amenities (e.g., benches, tables, playground, and similar amenities). A small portion of the parcel directly below the proposed tower in the northwestern corner and northern portion of the parcel would be shaded from 9:00 a.m. to 3:00 p.m. However, a majority of the parcel would not be shaded throughout the day in the Winter.

Spring shadow diagrams for the proposed Alameda Tower are depicted on Figure 24 through Figure 28 of Appendix B. Shadow impacts during Spring would be similar to those discussed for Winter. Similar to the Winter shadow diagrams, the Spring shadow diagrams show that no shade-sensitive uses would be shaded by the proposed Alameda Tower. A small portion of the Alameda Triangle directly below the proposed tower in the northwestern corner and northern portion of the parcel would be shaded from 9:00 a.m. to 5:00 p.m. However, this parcel is not considered a useable outdoor space, and a majority of the parcel would not be shaded throughout the day in the Spring.

Summer shadow diagrams for the proposed Alameda Tower are depicted on Figure 29 through Figure 33 of Appendix B. Shadow impacts during Summer would be the same as those discussed for the Spring.

Fall shadow diagrams for the proposed Alameda Tower are depicted on Figure 34 through Figure 38 of Appendix B. Shadow impacts during Fall would be the same as those discussed for Spring.

Based on the analysis above, the proposed Alameda Tower would not result in the shading of shade-sensitive uses for more than three hours between the hours of 9:00 a.m. and 3:00 p.m. Pacific Standard Time (between late October and early April), or for more than four hours between the hours of 9:00 a.m. and 5:00 p.m. Pacific Daylight Time (between early April and late October). A small portion of the Alameda Triangle directly below the proposed tower in the northwestern corner and northern portion of the property would be shaded all day in each season of the year. However, a majority of the Alameda Triangle would not be shaded throughout the day in each season. Moreover, the Alameda Triangle is public right-of-way, and is not considered to be a shade-sensitive use. Therefore, shadow impacts from the Alameda Tower would be less than significant.

Alpine Tower

Winter shadow diagrams for the proposed Alpine Tower are depicted on Figure 39 through Figure 42 of Appendix B. A small portion of the useable outdoor seating area, including several tables and chairs on the rooftop of the six-story portion of The Metro at Chinatown Senior Lofts along Spring Street, would be shaded for two hours at 9:00 a.m. and 10:00 a.m. However, this rooftop area does experience some existing shading from the adjacent taller portion of the multi-family residential building. A small outdoor seating area of the Homegirl Café, at the southeastern corner of the intersection of Alameda Street and Bruno Street, would be shaded for one hour at

1:00 p.m. However, this outdoor seating area receives existing shading from the adjacent Homegirl Café building. No other shade-sensitive uses would be shaded in the Winter. Some non-sensitive commercial, multi-family residential, industrial uses, as well as the Metro L Line (Gold) aerial guideway would be shaded at various times throughout the day in Winter.

Spring shadow diagrams for the proposed Alpine Tower are depicted on Figure 43 through Figure 47 of Appendix B. Similar to the discussion of Winter above, in Spring, a small portion of the useable outdoor seating area on the rooftop of the six-story portion of The Metro at Chinatown Senior Lofts would be shaded for one hour at 10:00 a.m. However, this rooftop area does experience some existing shading. The small outdoor seating area of the Homegirl Café would not be shaded by the proposed Project in Spring. No other shade-sensitive uses would be shaded in the Spring. Some non-sensitive commercial, multi-family residential, industrial uses, as well as the Metro L Line (Gold) elevated structure, would be partially shaded at various times throughout the day in Spring.

Summer shadow diagrams for the proposed Alpine Tower are depicted on Figure 48 through Figure 52 of Appendix B. The shadow diagrams show that no shade-sensitive uses would experience shading from the proposed Alpine Tower in the Summer. Some non-sensitive uses, as described for Spring, would be partially shaded throughout the day in Summer.

Fall shadow diagrams for the proposed Alpine Tower are depicted on Figure 53 through Figure 57 of Appendix B. Similar to the discussion of Winter, in Fall, a small portion of the useable outdoor seating area on the rooftop of the six-story portion of The Metro at Chinatown Senior Lofts would be shaded for two hours at 9:00 a.m. and 10:00 a.m. However, this rooftop area does experience some existing shading. The small outdoor seating area of the Homegirl Café would not be shaded by the proposed Project in Fall. No other shade-sensitive uses would be shaded in the Fall. Some non-sensitive uses, as described for Winter and Spring, would be partially shaded throughout the day in Fall.

Based on the analysis above, the proposed Alpine Tower would not result in the shading of shade-sensitive uses for more than three hours between the hours of 9:00 a.m. and 3:00 p.m. Pacific Standard Time (between late October and early April), or for more than four hours between the hours of 9:00 a.m. and 5:00 p.m. Pacific Daylight Time (between early April and late October). Therefore, shadow impacts from the Alameda Tower would be less than significant.

Chinatown/State Park Station

Winter shadow diagrams for the proposed Chinatown/State Park Station are depicted on Figure 58 through Figure 61 of Appendix B. A small segment of the western walkway in and near the southern entrance of Los Angeles State Historic Park would be shaded for four hours from 9:00 a.m. to 1:00 p.m. In addition, a small segment of walkways in the eastern side of the park would be shaded for three hours from 12:00 p.m. to 3:00 p.m. Also, a small area of the southwestern portion of the park green space would be shaded for four hours from 11:00 a.m. to 3:00 p.m. The covered outdoor seating area associated with the Cargo Snack Shack directly northeast of the proposed station would receive shading for two hours, from 1:00 p.m. to 3:00 p.m. No other shade-sensitive uses would be shaded in the Winter. Some non-sensitive industrial/manufacturing uses, the Metro L Line (Gold) ROW, a small park building, as well as a vacant lot would be partially shaded at various times throughout the day in Winter. The vacant lot is the future site of the approved College Station mixed-use development project.

Spring shadow diagrams for the proposed Chinatown/State Park Station are depicted on Figure 62 through Figure 66 of Appendix B. Similar to Winter, a small segment of the western walkway in and near the southern entrance of Los Angeles State Historic Park would be shaded for four hours from 9:00 a.m. to 1:00 p.m. In addition, a small segment of walkways in the eastern side of the park near the entrance would be shaded for four hours from 1:00 p.m. to 5:00 p.m. Also, a small portion of the southwestern portion of the park green space would be shaded for three hours from 11:00 a.m. to 2:00 p.m. The northern corner of the newly constructed Llewellyn Apartments, southeast of the proposed Chinatown/State Park Station on the northern side of Main Street, would be partially shaded for one hour at 5:00 p.m. No other shade-sensitive uses would be shaded in the Spring. Some non-sensitive industrial/manufacturing uses, the Metro L Line (Gold) ROW, a small park building, as well as a vacant lot (site of approved College Station project) would be partially shaded at various times throughout the day in Spring.

Summer shadow diagrams for the proposed Chinatown/State Park Station are depicted on Figure 67 through Figure 71 of Appendix B. A small segment of the western walkway in and near the southern entrance of the Los Angeles State Historic Park would be shaded for three hours from 9:00 a.m. to 12:00 p.m. Similar to Spring, a small segment of walkways in the eastern side of the park would be shaded for four hours from 12:00 p.m. to 4:00 p.m. Also, a small portion of the southwestern portion of the park green space would be shaded for two hours from 11:00 a.m. to 1:00 p.m. No other shade-sensitive uses would be shaded in the Summer. Some non-sensitive industrial/manufacturing uses, the Metro L Line (Gold) ROW, as well as a vacant lot (site of approved College Station project) would be partially shaded at various times throughout the day in Summer.

Fall shadow diagrams for the proposed Chinatown/State Park Station are depicted on Figure 72 through Figure 76 of Appendix B. A small segment of the western walkway in and near the southern entrance of Los Angeles State Historic Park would be shaded for four hours from 9:00 a.m. to 1:00 p.m. A small segment of walkways in the eastern side of the park would be shaded for four hours from 12:00 p.m. to 4:00 p.m. Also, a small portion of the southwestern portion of the park green space would be shaded for two hours from 10:00 a.m. to 12:00 p.m. No other shade-sensitive uses would be shaded in the Fall. Some non-sensitive industrial/ manufacturing uses, the Metro L Line (Gold) ROW, as well as a vacant lot (site of approved College Station project) would be partially shaded at various times throughout the day in Fall.

Based on the analysis above, the proposed Chinatown/State Park Station would result in the shading of shade-sensitive uses for more than three hours between the hours of 9:00 a.m. and 4:00 p.m. Pacific Standard Time (between late October and early April) in the Winter. Small portions of the eastern and western walkways and park green space near the southern entrance of the park would be shaded by the proposed Chinatown/State Park Station in the Winter. These park-related areas would be directly adjacent to the proposed station and are also considered to be a part of the proposed Project site. Los Angeles State Historic Park is an urban park in a highly developed area, and includes a total of approximately 32 acres of passive recreation, including expansive additional areas of walkways and open green space for patrons to use. The relatively small areas of park walkways and green spaces that would receive shading from the proposed station are considered to be elements of the southern entrance to the park, but not routinely useable outdoor spaces. In addition, the outdoor seating area associated with the Cargo Snack Shack, which would receive shading for only two hours, currently includes an overhead shade canopy, so the proposed Project would not shade an uncovered outdoor seating area. Therefore, these impacts are not considered to be significant for these reasons. Also, the proposed Chinatown/State Park Station would not result in the shading of shade-sensitive uses for more than four hours between the hours of 9:00 a.m. and 5:00 p.m. Pacific Daylight Time (between

early April and late October). Therefore, shadow impacts from the Chinatown/State Park Station would be less than significant.

Broadway Junction

Winter shadow diagrams for the proposed Broadway Junction are depicted on Figure 77 through Figure 80 of Appendix B. A portion of the front patio of the multi-family residential building at the northeastern corner of Bishops Road and Savoy Street (455 Savoy Street) would be shaded for one hour at 9:00 a.m. A small portion of the front yard of a multi-family residential building (438 Savoy Street) would be shaded for one hour at 11:00 a.m. The backyard area of a single-family residence (434 Savoy Street) on the southern side of Savoy Street, adjacent and east of 438 Savoy Street, would be shaded for two hours from 12:00 p.m. to 2:00 p.m. The backyard area of another single-family residence (430 Savoy Street) adjacent and east of 434 Savoy Street would be shaded for two hours from 1:00 p.m. to 3:00 p.m. No other shade-sensitive uses would be shaded by the proposed Broadway Junction in Winter. Some non-sensitive institutional, office, and commercial uses would be partially shaded at various times throughout the day in Winter. The vegetated area at the southeastern corner of Bishops Road and Savoy Street would experience shadows, but is a part of the Project site for Broadway Junction, and would be developed as part of the proposed Project.

Spring shadow diagrams for the proposed Broadway Junction are depicted on Figure 81 through Figure 85 of Appendix B. A small portion of Los Angeles State Historic Park, south of North Broadway, would be shaded for one hour at 5:00 p.m. No other shade-sensitive uses would be shaded by the proposed Broadway Junction in Spring. Some non-sensitive institutional, office, and commercial uses, as well as the Metro L Line (Gold) ROW would be partially shaded at various times throughout the day in Spring. As previously discussed, the vegetated area at the southeastern corner of Bishops Road and Savoy Street would be landscaped as part of the proposed Project.

Summer shadow diagrams for the proposed Broadway Junction are depicted on Figure 86 through Figure 90 of Appendix B. A small portion of Los Angeles State Historic Park, south of North Broadway, would be shaded for one hour at 5:00 p.m. No other shade-sensitive uses would be shaded by the proposed Broadway Junction in Summer. Some non-sensitive institutional, office, and commercial uses, as well as the Metro L Line (Gold) ROW would be partially shaded at various times throughout the day in Summer. As previously discussed, the vegetated lot at the southeastern corner of Bishops Road and Savoy Street would be developed with landscaping as part of the proposed Project.

Fall shadow diagrams for the proposed Broadway Junction are depicted on Figure 91 through Figure 95 of Appendix B. The shadow diagram analysis for Fall would be the same as discussed for the Summer above.

Based on the analysis above, the proposed Broadway Junction would not result in the shading of shade-sensitive uses for more than three hours between the hours of 9:00 a.m. and 3:00 p.m. Pacific Standard Time (between late October and early April), or for more than four hours between the hours of 9:00 a.m. and 5:00 p.m. Pacific Daylight Time (between early April and late October). Therefore, shadow impacts from the Broadway Junction would be less than significant.

Stadium Tower

Winter shadow diagrams for the proposed Stadium Tower are depicted on Figure 96 through Figure 99 of Appendix B. No shade-sensitive uses would be shaded by the proposed Stadium Tower in Winter. Some non-sensitive uses such as the Dodger Stadium parking lot entrance and parking lot, and SR-110 ROW, including the freeway and adjacent vegetated areas, would be partially shaded at various times throughout the day in Winter.

Spring shadow diagrams for the proposed Stadium Tower are depicted on Figure 100 through Figure 104 of Appendix B. The tower would shade a small portion of the Radio Hill Gardens park directly east of the SR-110 ROW for two hours at 4:00 p.m. and 5:00 p.m. No other shade-sensitive uses would be shaded by the proposed Stadium Tower in Spring. Some non-sensitive uses such as the Dodger Stadium parking lot entrance, and SR-110 ROW, including the freeway and adjacent vegetated areas, would be partially shaded at various times throughout the day in Spring.

Summer shadow diagrams for the proposed Stadium Tower are depicted on Figure 105 through Figure 109 of Appendix B. The tower would shade a small portion of the Radio Hill Gardens park directly east of the SR-110 ROW for one hour at 5:00 p.m. No other shade-sensitive uses would be shaded by the proposed Stadium Tower in Summer. Some non-sensitive uses such as the SR-110 ROW, including the freeway and adjacent vegetated areas, would be partially shaded at various times throughout the day in Summer.

Fall shadow diagrams for the proposed Stadium Tower are depicted on Figure 110 through Figure 114 of Appendix B. The tower would shade a small portion of the Radio Hill Gardens park directly east of the SR-110 ROW for two hours at 4:00 p.m. and 5:00 p.m. No other shade-sensitive uses would be shaded by the proposed Stadium Tower in Fall. Some non-sensitive uses such as the Dodger Stadium parking lot entrance, and SR-110 ROW, including the freeway and adjacent vegetated areas, would be partially shaded at various times throughout the day in Fall.

Based on the analysis above, the proposed Stadium Tower would not result in the shading of shade-sensitive uses for more than three hours between the hours of 9:00 a.m. and 3:00 p.m. Pacific Standard Time (between late October and early April), or for more than four hours between the hours of 9:00 a.m. and 5:00 p.m. Pacific Daylight Time (between early April and late October). Therefore, shadow impacts from the Stadium Tower would be less than significant.

Dodger Stadium Station

The Dodger Stadium Station has been screened out of requiring shadow diagrams and a shadow analysis in accordance with the L.A. CEQA Thresholds Guide (2006). The document states that if a project element would include light-blocking structures in excess of 60 feet in height above the ground elevation that would be located within a distance of three times the height of the proposed structure to a shadow-sensitive use on the north, northwest, or northeast, then shadow diagrams and associated analysis should be conducted. No shade-sensitive uses are currently within this radius from the proposed location of the Dodger Stadium Station. Therefore, detailed shadow diagrams and analysis were not required for the Dodger Stadium Station.

Related Projects Shading

The proposed Project area is being developed with various mixed-use developments, residential developments, and open space/circulation projects. As noted below, these developments are in varying stages in the development process such as proposed, permitted, or approved. “Proposed” related projects still require completion of their respective environmental processes and discretionary approvals. Each of the related projects that include development of buildings would create new shadows in various portions of the proposed Project area. The analysis below is based on a review of the proposed locations of the related projects in conjunction with review of the shadow diagrams prepared for the proposed Project in Appendix B – Shadow Diagrams.

The approved Los Angeles Union Station Forecourt and Esplanade Improvements project will be located along the Alameda Street public ROW near LAUS, in the LAUS property fronting Alameda Street, as well as on other side streets in the area. The purpose of the project is to enhance pedestrian and bicycle access and safety, and to provide the proposed Forecourt open space courtyard area on the eastern side of Alameda Street, adjacent to the proposed Alameda Station. The Alameda Station would shade the northern portion of the Forecourt for approximately two hours at 2:00 p.m. and 3:00 p.m. in the Winter. In the Spring, Summer, and Fall, the northern portion of the Forecourt would be shaded for approximately four hours from 1:00 p.m. to 5:00 p.m.

A Homeboy Industries residential project is proposed to be constructed at the southeastern corner of the intersection of Alameda Street and Alpine Street. The proposed Alameda Tower, located to the south, would partially shade this project only in the Winter for approximately two hours from 1:00 p.m. to 3:00 p.m. Shading is not anticipated to occur in the Spring, Summer, and Fall.

The approved College Station seven-story mixed-use development project at the northeastern corner of the intersection of College Street and Spring Street will have up to 725 multi-family residential units and 51,600 square feet of commercial uses. The proposed Chinatown/State Park Station would partially shade the northern portion of this approved project for approximately two hours at 4:00 p.m. and 5:00 p.m. in the Spring, Summer, and Fall. Shading is not anticipated to occur in the Winter.

The approved Harmony project at 942 North Broadway will include a 27-story tower with 178 residential units and two floors of office and retail space with below-grade parking. The permitted 200 Mesnager project at 200 North Mesnager Street includes a seven-story building and 278 residential units. These projects are not expected to be shaded by the proposed Project due to their locations further away from vertical elements of the proposed Project components.

The proposed Buena Vista Project would be at 1251 North Spring Street and 1030 – 1380 North Broadway, and would include a mixed-use development of residential and commercial uses. The proposed Buena Vista Project would include buildings of varying heights ranging from two stories to 26 stories. The central portion of this project, which would include proposed greenspace and a walkway, would be partially shaded by the proposed Broadway Junction for approximately three hours from 2:00 p.m. to 5:00 p.m. in both the Spring and Fall. The proposed greenspace and walkway would be partially shaded for approximately 4 hours from 1:00 p.m. to 5:00 p.m. in the Summer. Shading is not anticipated to occur in the Winter.

Please note that it is unknown at this time if all the mixed-use and residential developments above would include useable outdoor space that would be shaded by the proposed Project. However, based on the analysis presented above, the proposed Project would not shade any portion (whether shade-sensitive useable outdoor space, non-sensitive, etc.) of the related projects’

properties for more than three hours between the hours of 9:00 a.m. and 3:00 p.m. Pacific Standard Time (between late October and early April), or for more than four hours between the hours of 9:00 a.m. and 5:00 p.m. Pacific Daylight Time (between early April and late October). Therefore, less than significant shadow impacts are anticipated.

6.0 RECOMMENDED MITIGATION

The implementation of mitigation measures is not required because the proposed Project would not result in significant impacts.

7.0 PROJECT DESIGN FEATURES

AES-PDF-A **Project Lighting.** The Project would also include the following project design features related to lighting:

- Building Lighting will not exceed 60 watts.
- Building Lighting outdoor luminaires will not exceed 6,200 initial lumens.
- Sign Lighting luminance will not exceed 10,000 candelas per m^2 (cd/m^2) during the day from after sunrise until 45 minutes prior to sunset. Sign Lighting will not exceed 300 cd/m^2 at night from sunset until 45 minutes prior to sunrise.
- Sign Lighting luminance shall transition smoothly from daytime luminance to nighttime luminance and vice versa.
- Illuminated signs that have the potential to exceed 300 cd/m^2 will include an electronic control mechanism to reduce sign luminance to 300 cd/m^2 at any time when ambient sunlight is less than 100 footcandles (fc).

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APPENDIX A

KOP Figure Mapbook –

Existing and Simulated Views

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Figure 5-24: Existing and Simulation Views of KOP 21 – Looking Southwest on North Broadway from Solano Avenue





Figure 5-25: Existing and Simulation Views of KOP 22 – Looking Northeast on North Broadway from Cottage Home Street





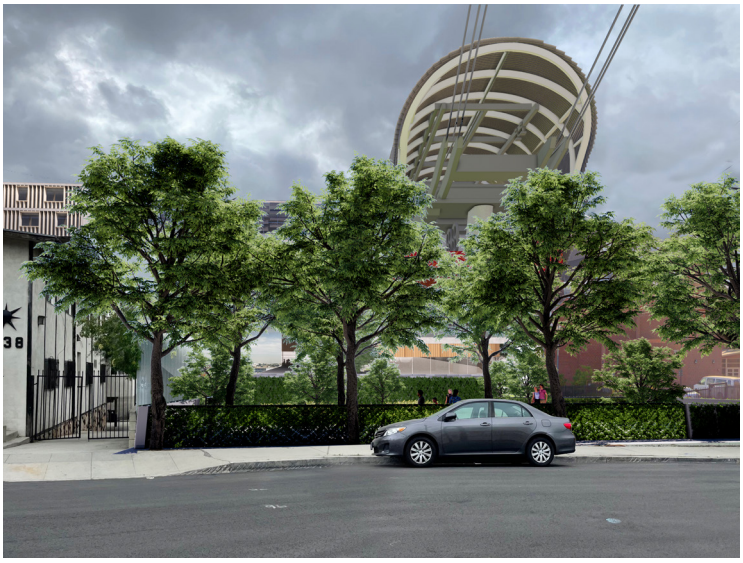


Figure 5-26: Existing and Simulation Views of KOP 23 – Looking Southeast from Savoy Street, east of Bishops Road







Figure 5-27: Existing and Simulation Views of KOP 24 – Looking Southeast on Bishops Road from Cathedral High School



Figure 5-28: Existing and Simulation Views of KOP 25 – Looking Northeast from Cottage Home Street





Figure 5-29: Existing and Simulation Views of KOP 26 – Looking Southwest on Arroyo Seco Parkway/SR-110 towards Downtown Los Angeles



Figure 5-30: Existing and Simulation Views of KOP 27 – Looking Southeast from Dodger Stadium Parking Lot

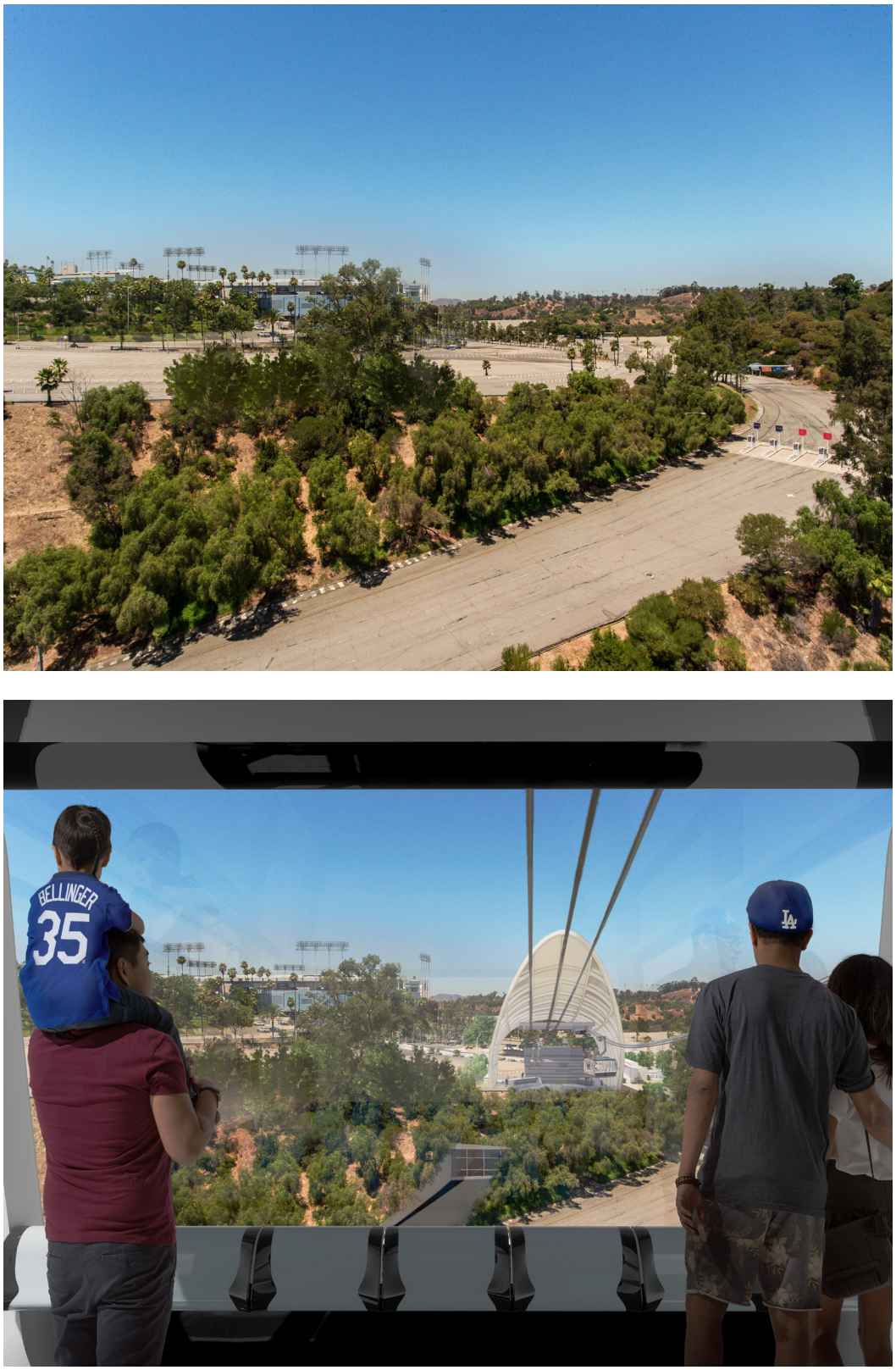


Figure 5-31: Existing and Simulation Views of KOP 28a – Cabin View Looking Northwest towards Dodger Stadium



Figure 5-32: Existing and Simulation Views of KOP 28b – Cabin View Looking Southwest towards Downtown Los Angeles



Figure 5-33: Existing and Simulation Views of KOP 29 – Looking Northeast along Stadium Way from Curtis Street

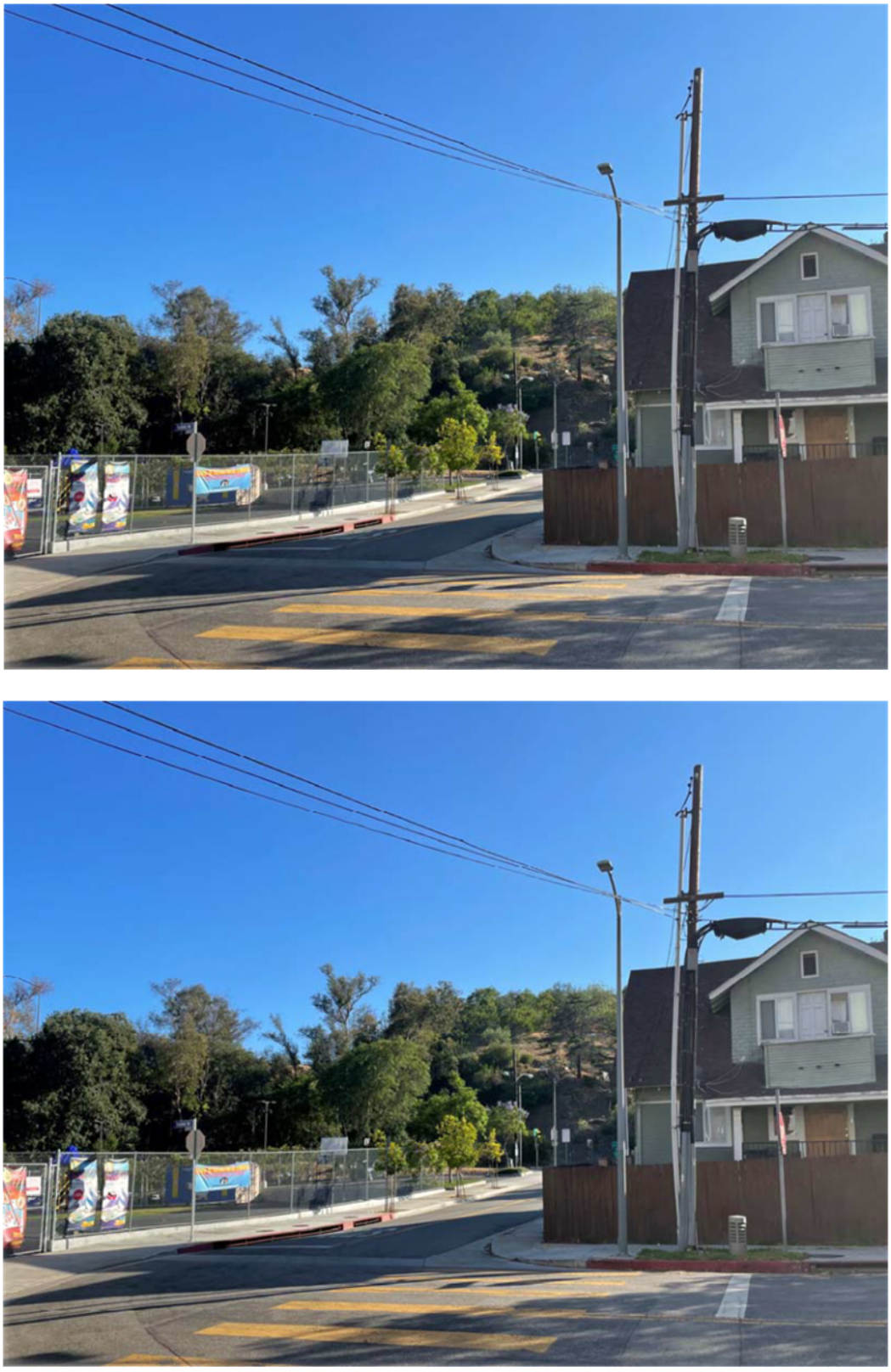


Figure 5-34: Existing and Simulation Views of KOP 30 – Looking Southwest along Amador Place from Solano Avenue

APPENDIX B

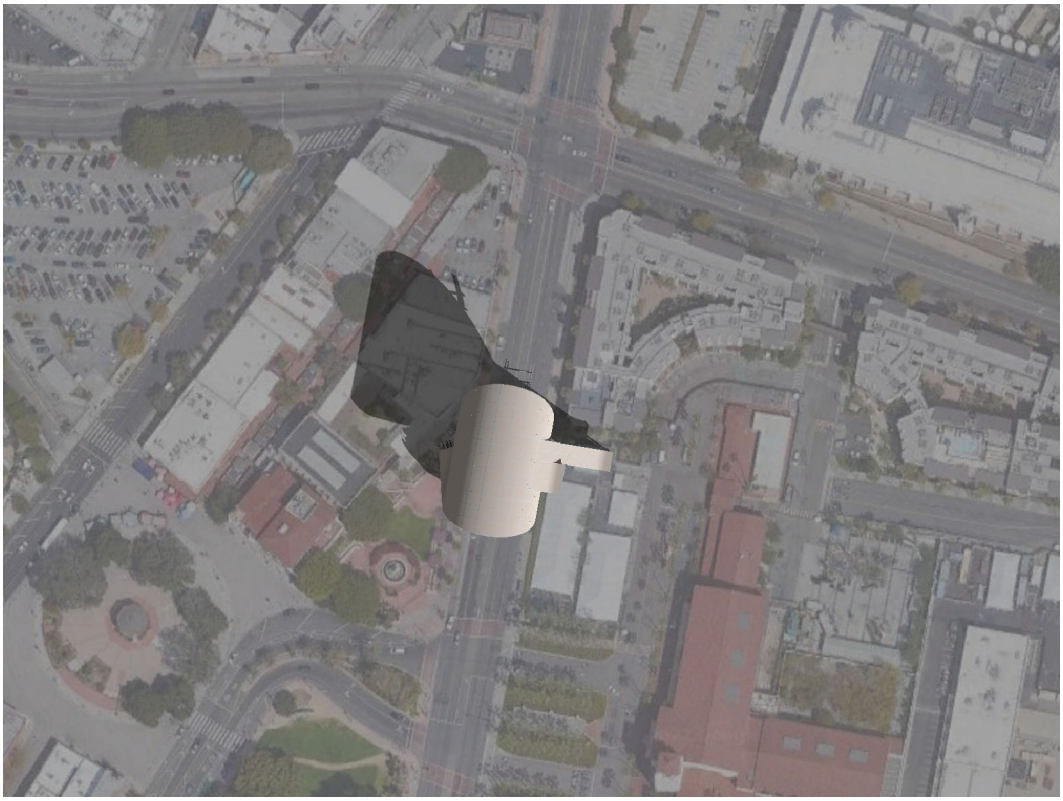
Shade/Shadow Diagrams

- Proposed Project

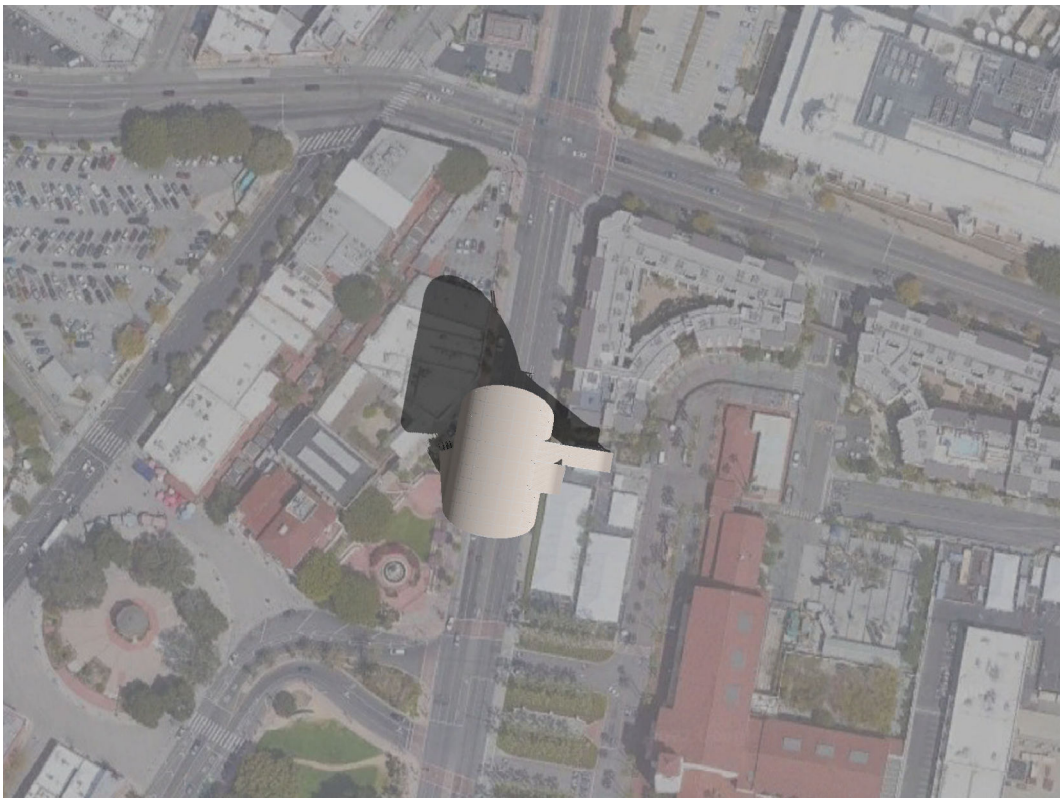
- Spring Street Alignment Alternative

- Design Options A, B, C

Proposed Project



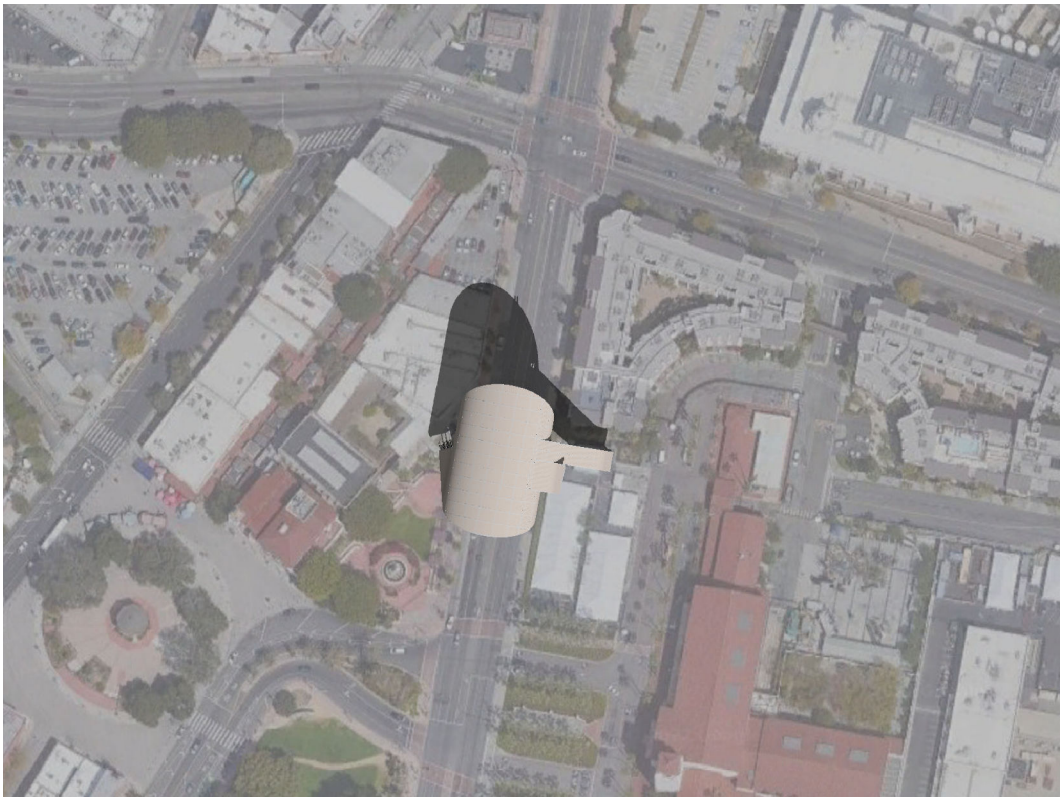
9 am



10 am

AECOM

Figure 1
Alameda Station Winter Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 2
Alameda Station Winter Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

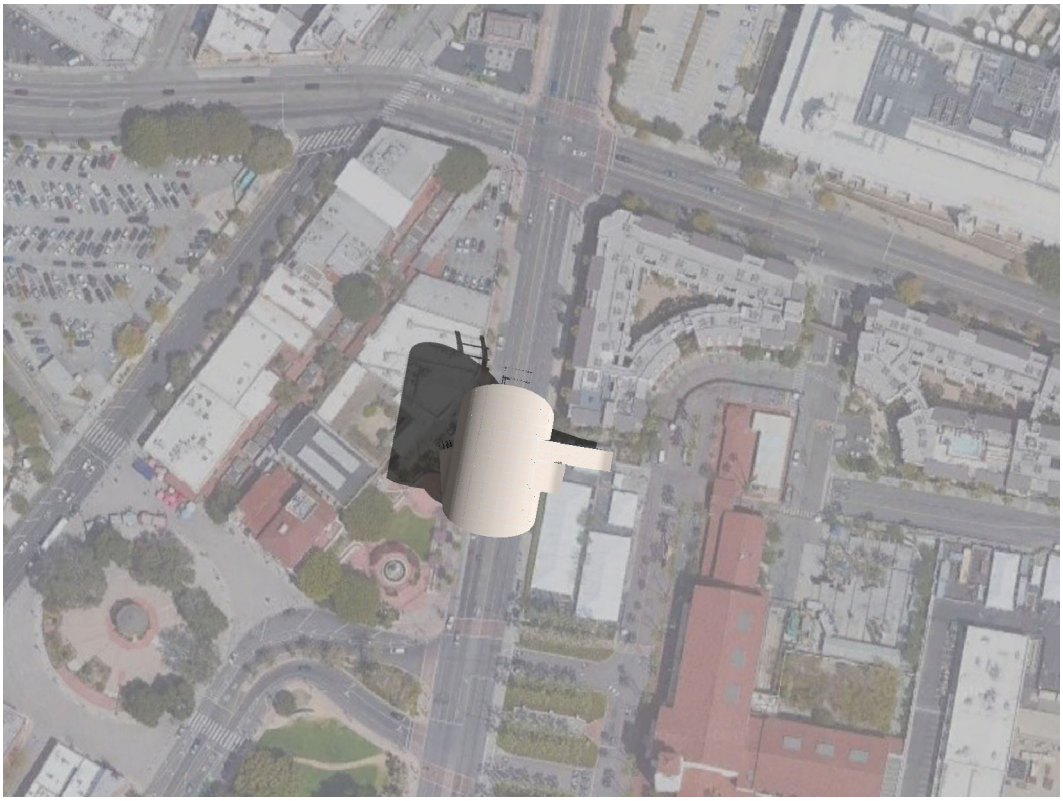
Figure 3
Alameda Station Winter Shadows
1:00pm - 2:00pm



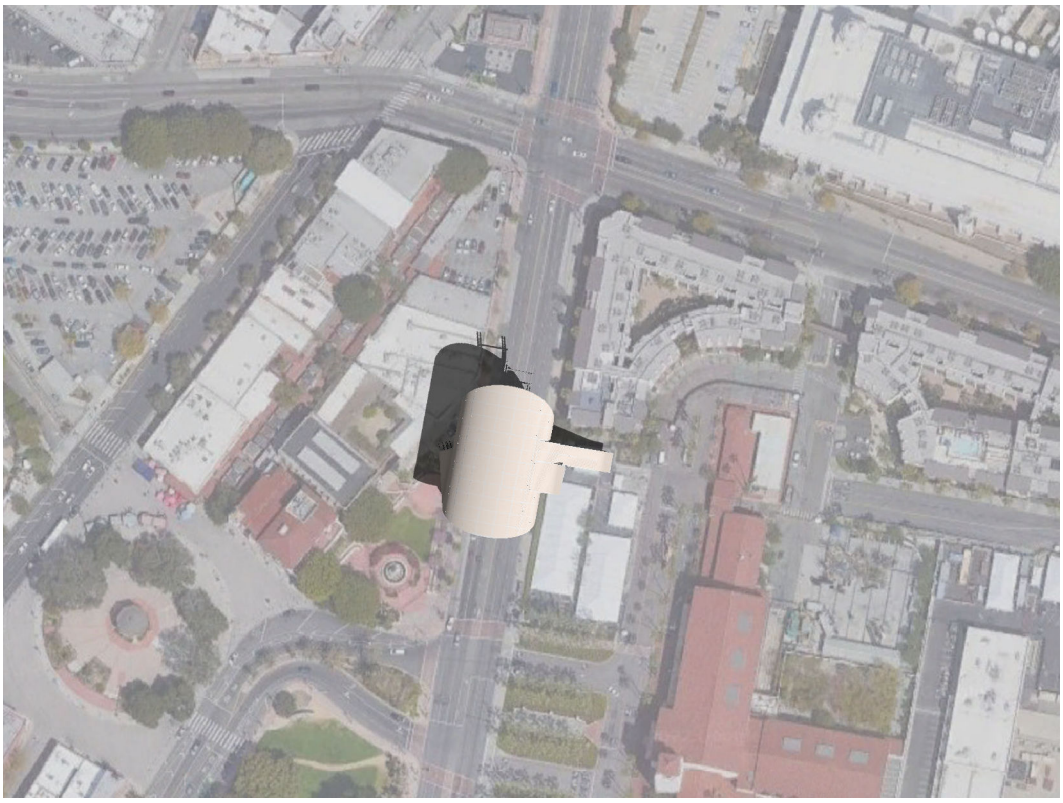
3 pm

AECOM

Figure 4
Alameda Station Winter Shadows
3:00pm



9 am



10 am

AECOM

Figure 5
Alameda Station Spring Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 6
Alameda Station Spring Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 7
Alameda Station Spring Shadows
1:00pm - 2:00pm



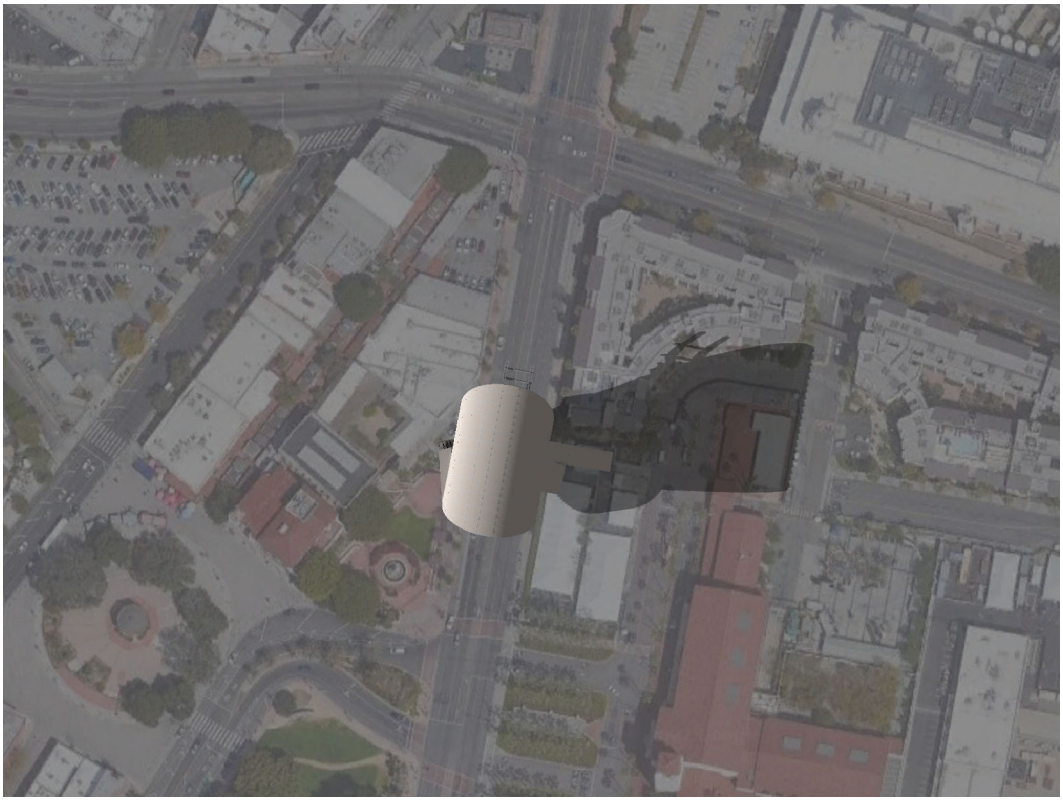
3 pm



4 pm

AECOM

Figure 8
Alameda Station Spring Shadows
3:00pm - 4:00pm



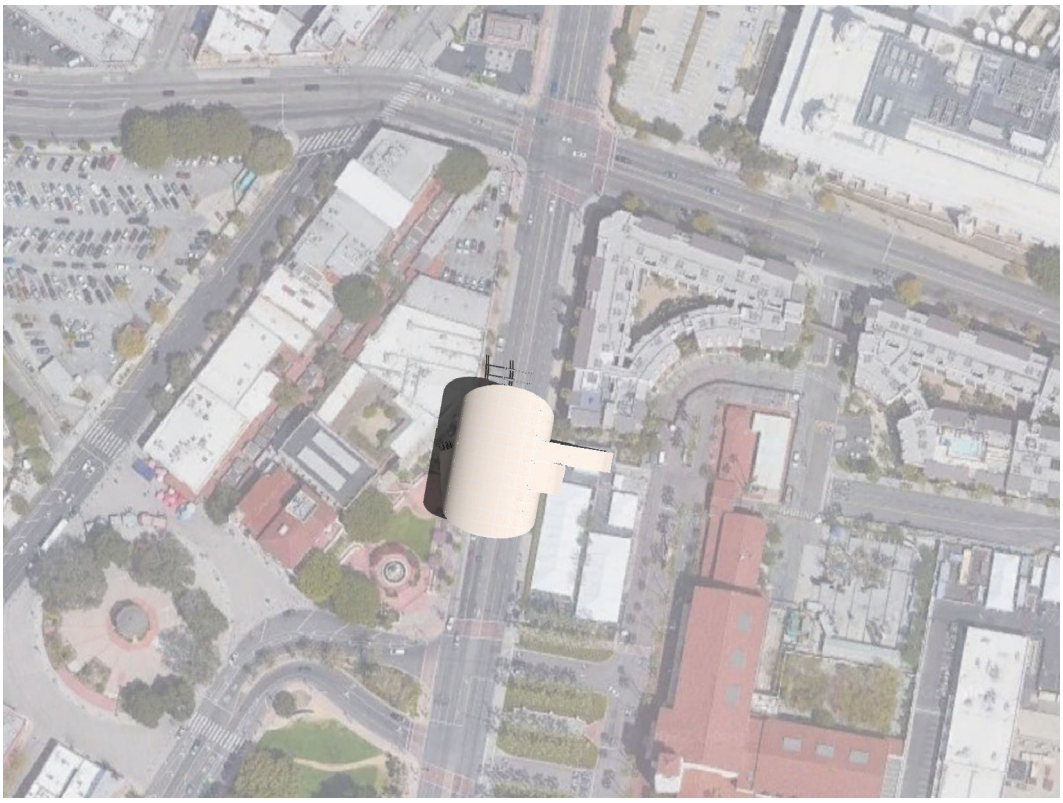
5 pm

AECOM

Figure 9
Alameda Station Spring Shadows
5:00pm



9 am



10 am

AECOM

Figure 10
Alameda Station Summer Shadows
9:00am - 10:00am



11 am



12 pm

Figure 11
Alameda Station Summer Shadows
11:00am - 12:00pm



1 pm



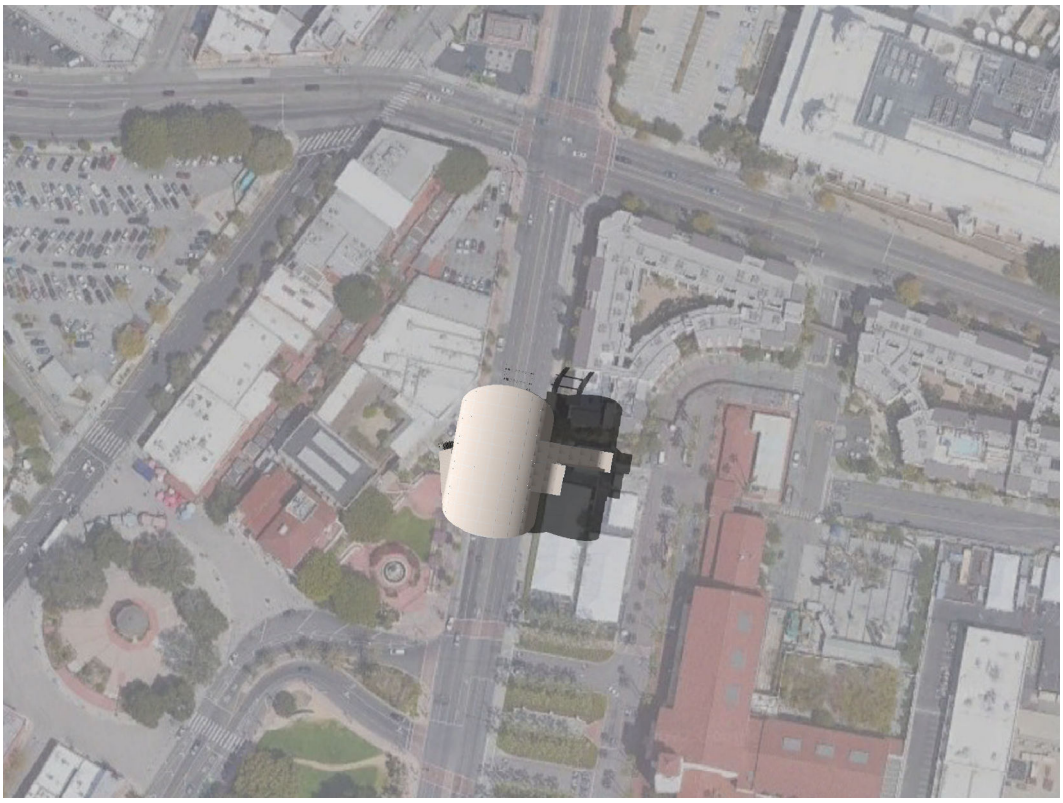
2 pm

AECOM

Figure 12
Alameda Station Summer Shadows
1:00pm - 2:00pm



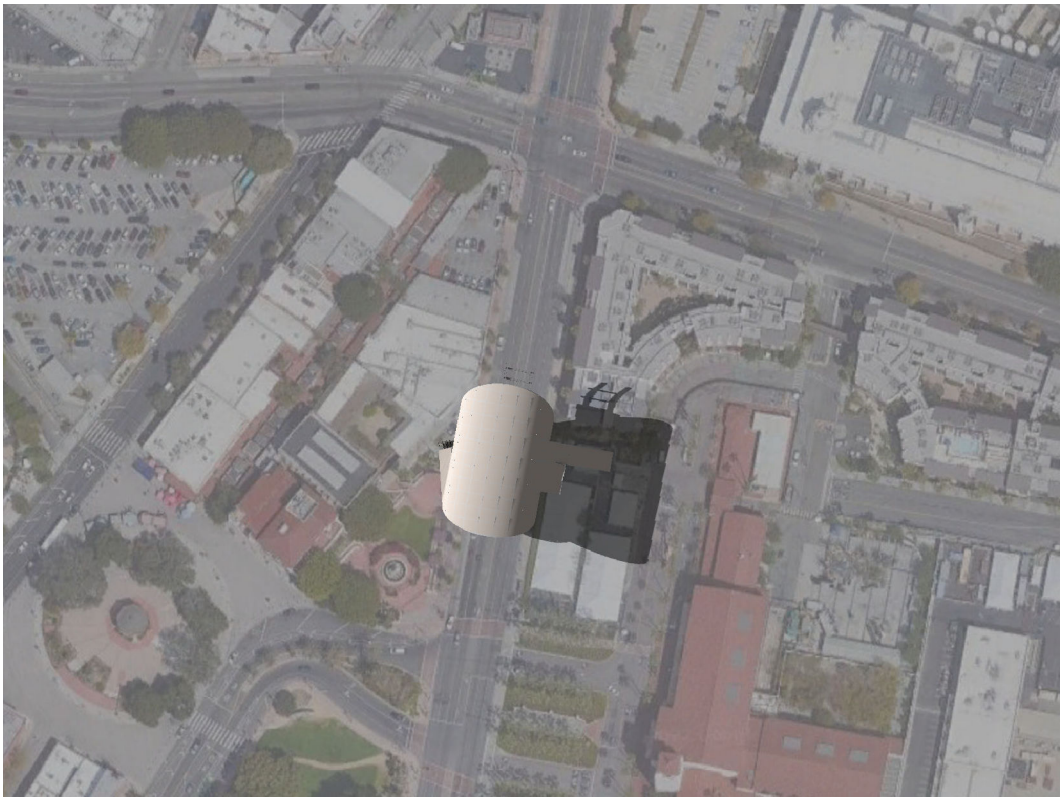
3 pm



4 pm

AECOM

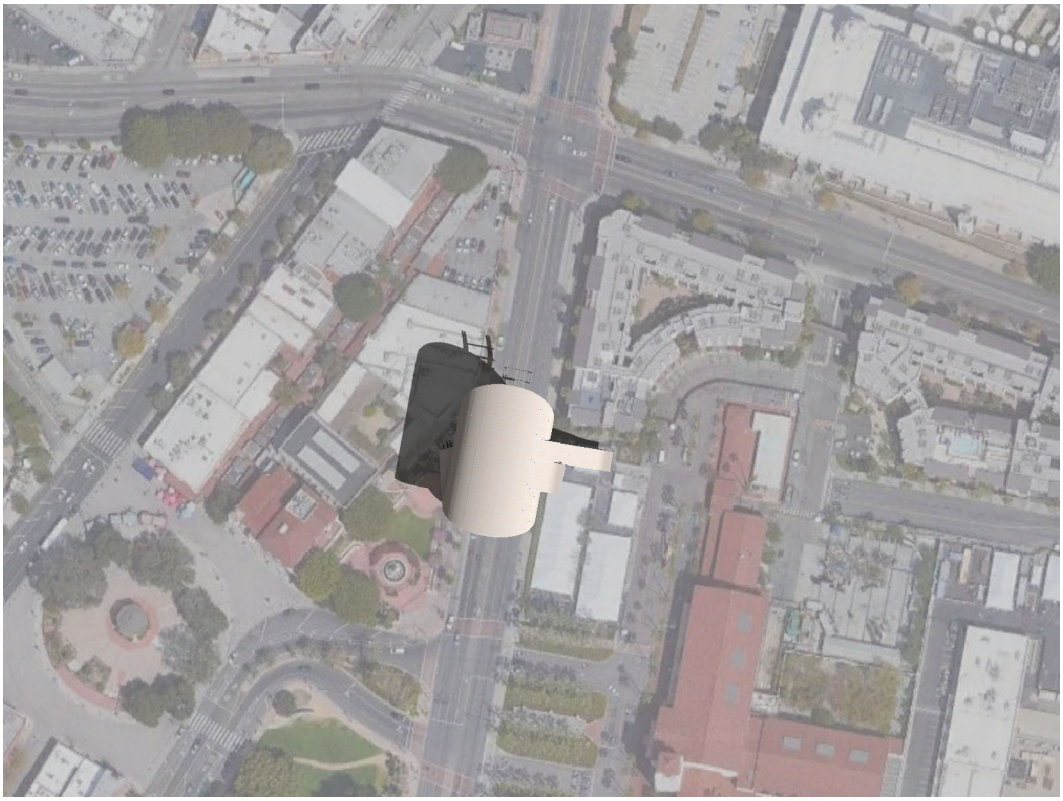
Figure 13
Alameda Station Summer Shadows
3:00pm - 4:00pm



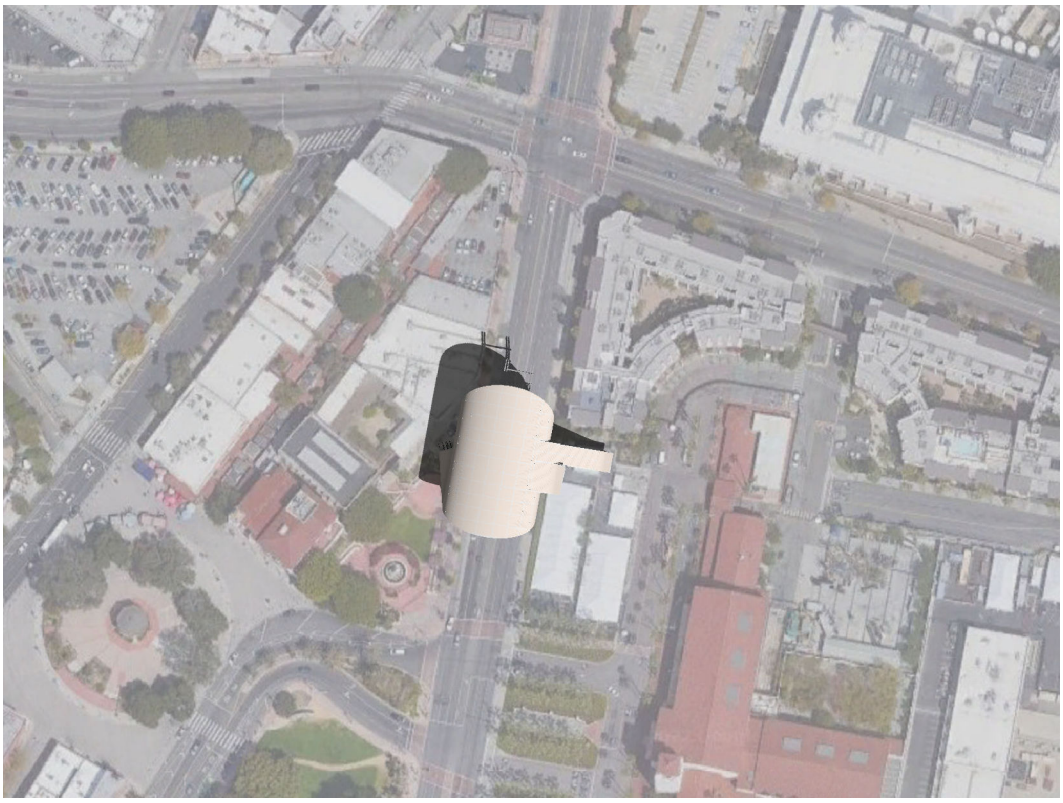
5 pm

AECOM

Figure 14
Alameda Station Summer Shadows
5:00pm



9 am



10 am

AECOM

Figure 15
Alameda Station Fall Shadows
9:00am - 10:00am



11 am



12 pm

Figure 16
Alameda Station Fall Shadows
11:00am - 12:00pm



1 pm



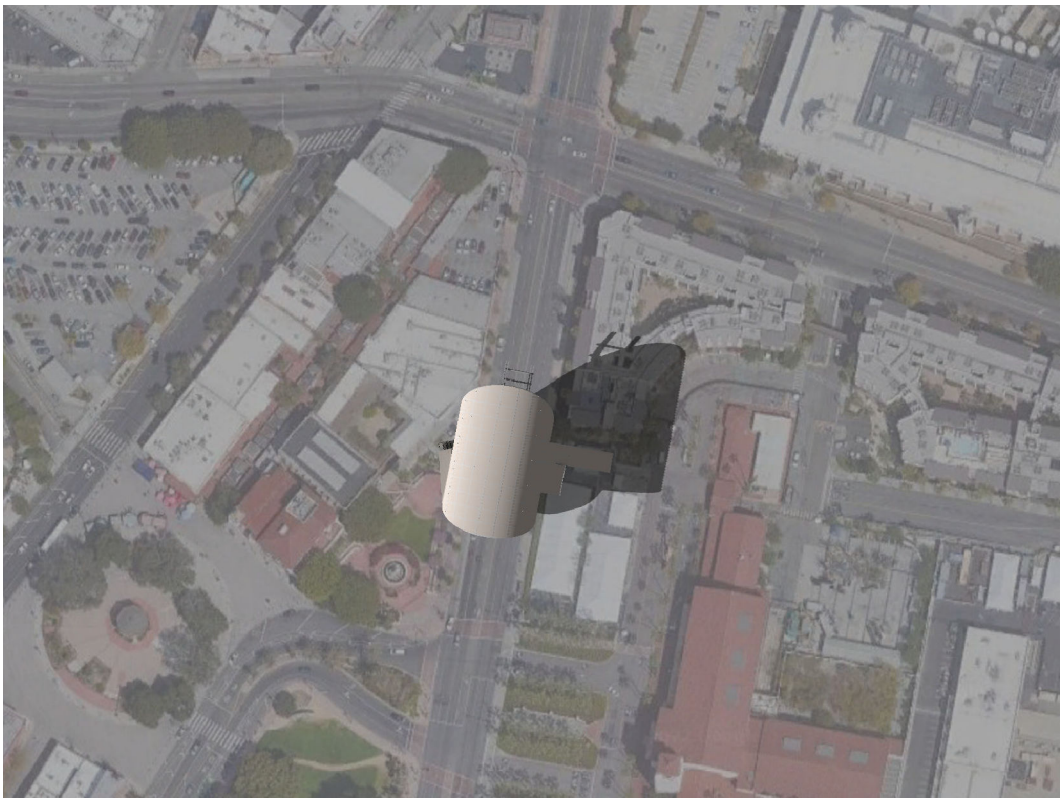
2 pm

AECOM

Figure 17
Alameda Station Fall Shadows
1:00pm - 2:00pm



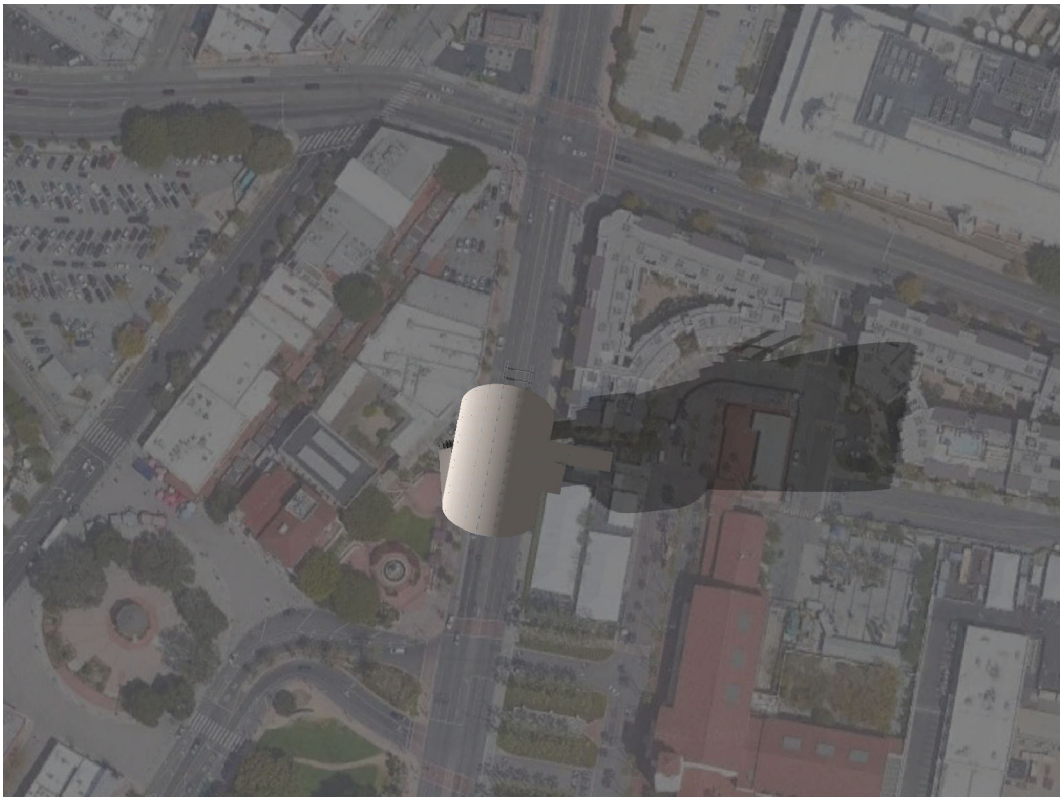
3 pm



4 pm

AECOM

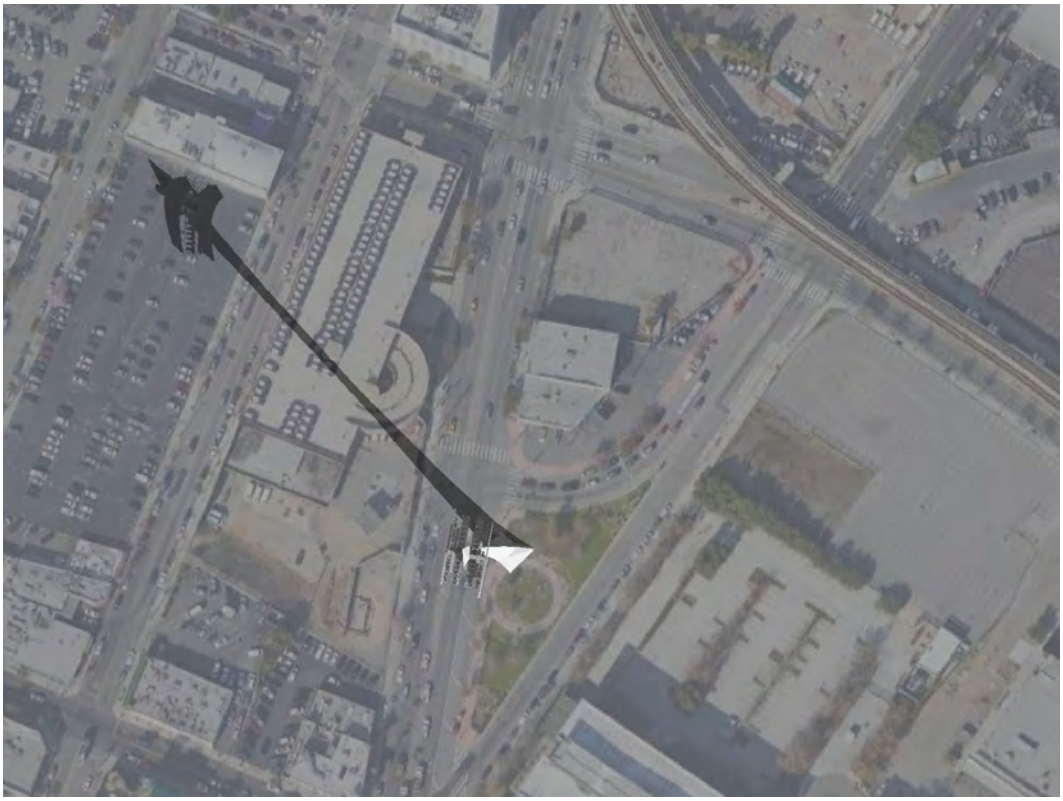
Figure 18
Alameda Station Fall Shadows
3:00pm - 4:00pm



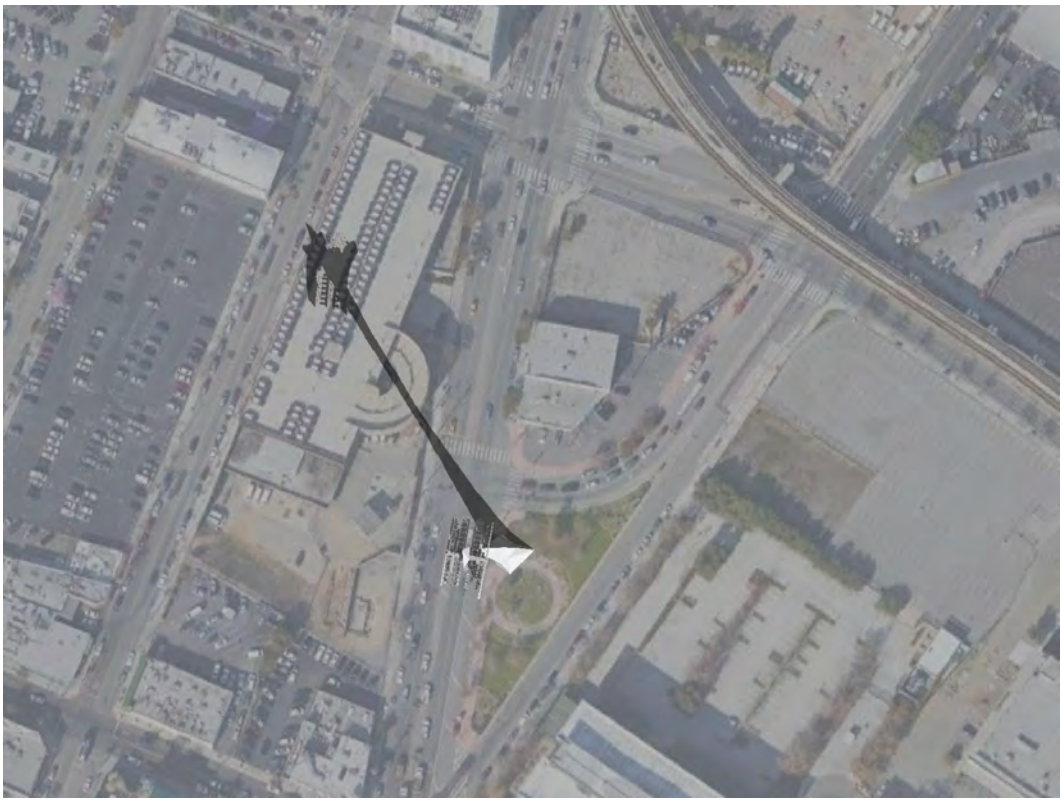
5 pm

AECOM

Figure 19
Alameda Station Fall Shadows
5:00pm



9 am



10 am

AECOM

Figure 20
Alameda Tower Winter Shadows
9:00am - 10:00am



11 am



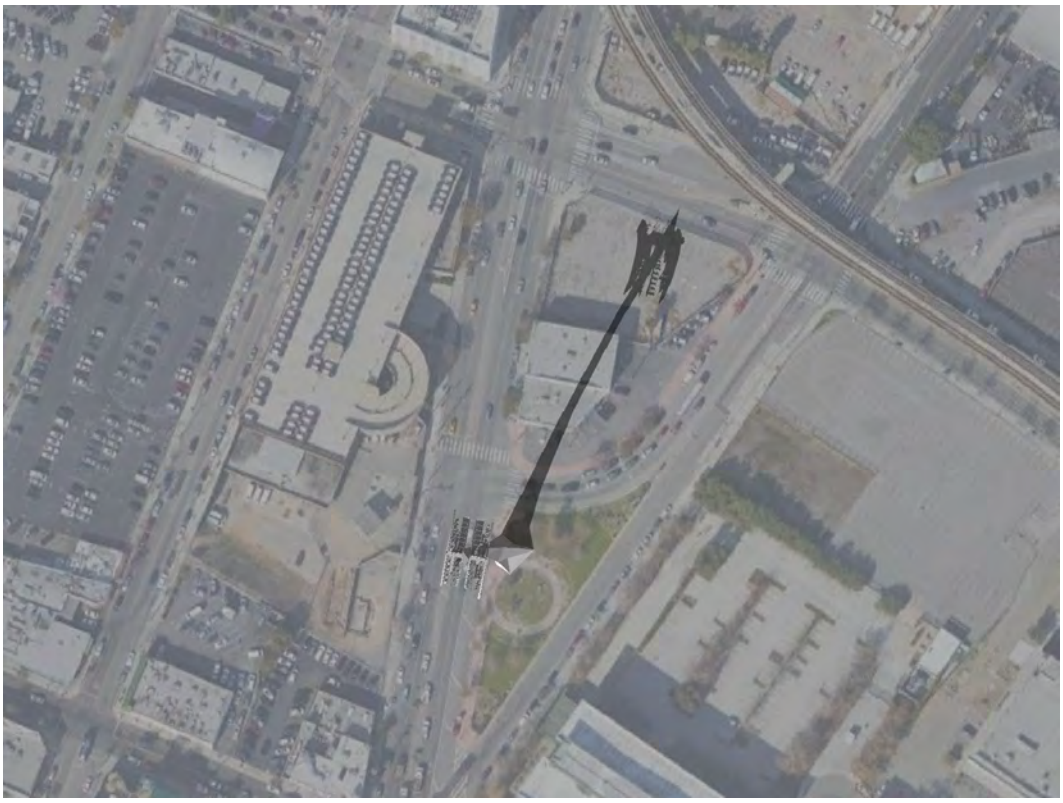
12 pm

AECOM

Figure 21
Alameda Tower Winter Shadows
11:00am - 12:00pm



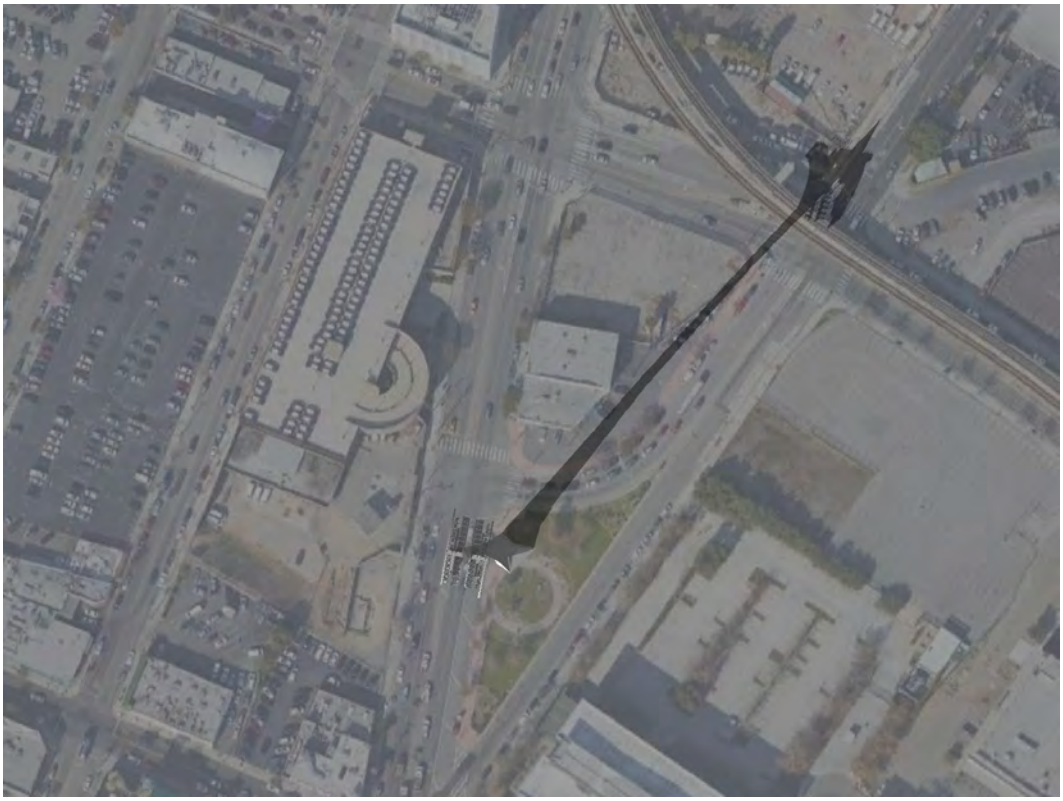
1 pm



2 pm

AECOM

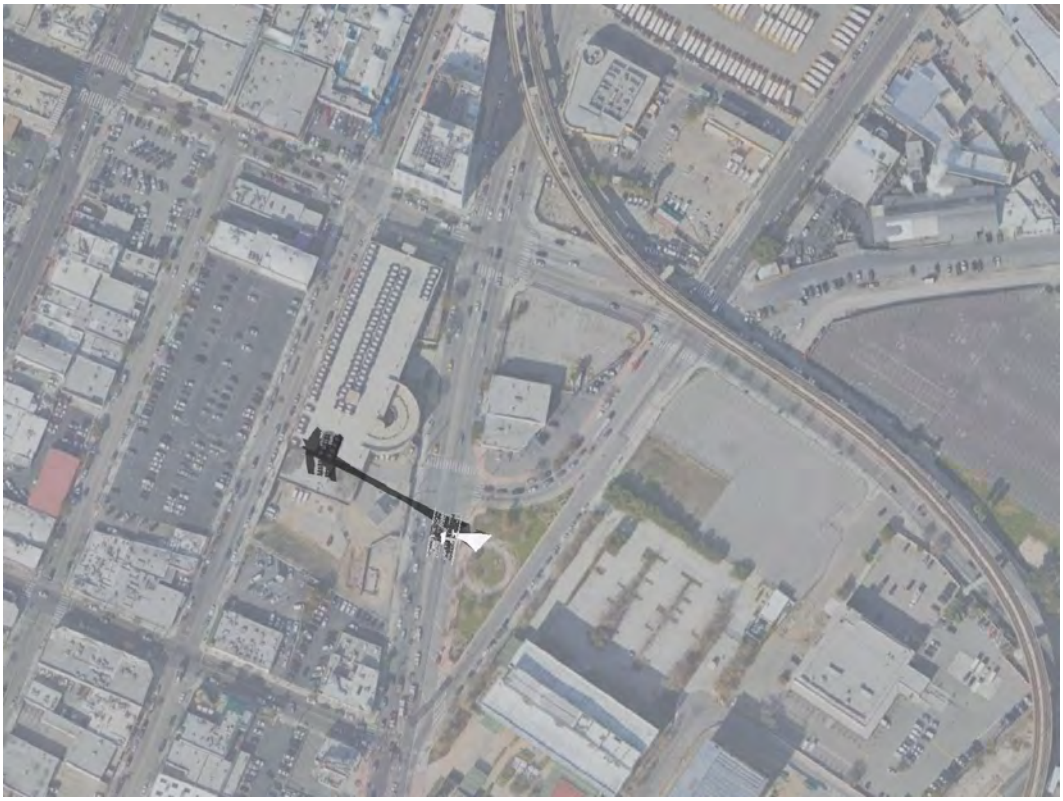
Figure 22
Alameda Tower Winter Shadows
1:00pm - 2:00pm



3 pm

AECOM

Figure 23
Alameda Tower Winter Shadows
3:00pm



9 am



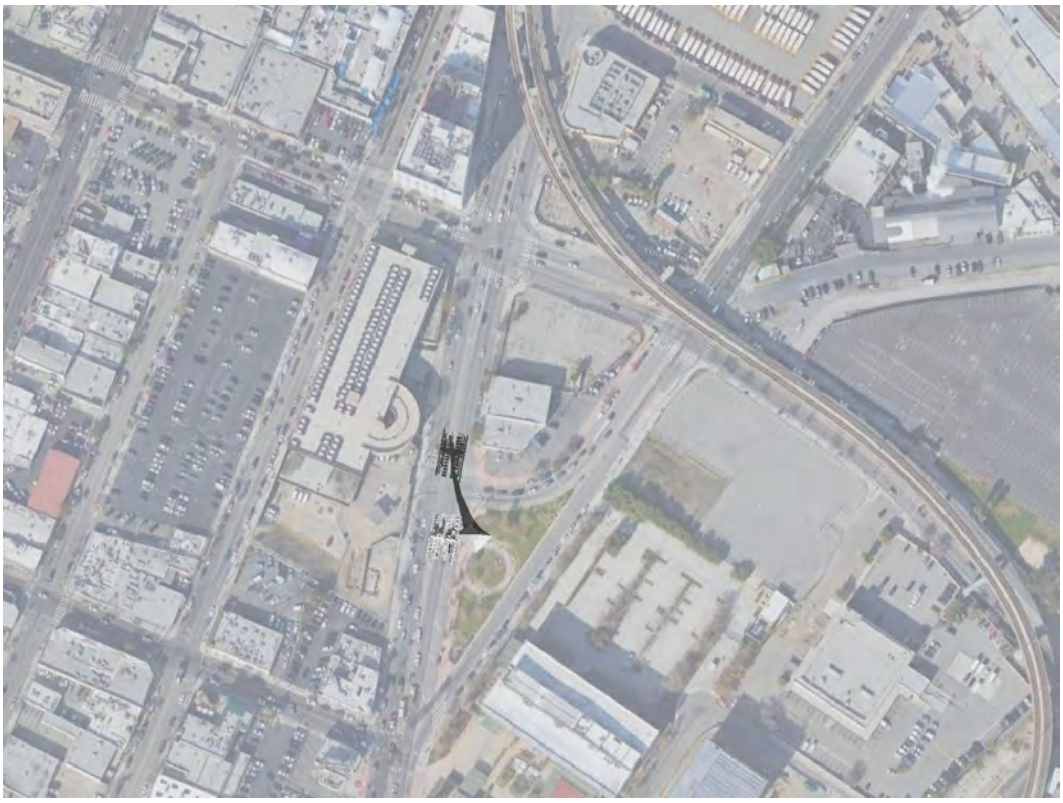
10 am

AECOM

Figure 24
Alameda Tower Spring Shadows
9:00am - 10:00am



11 am



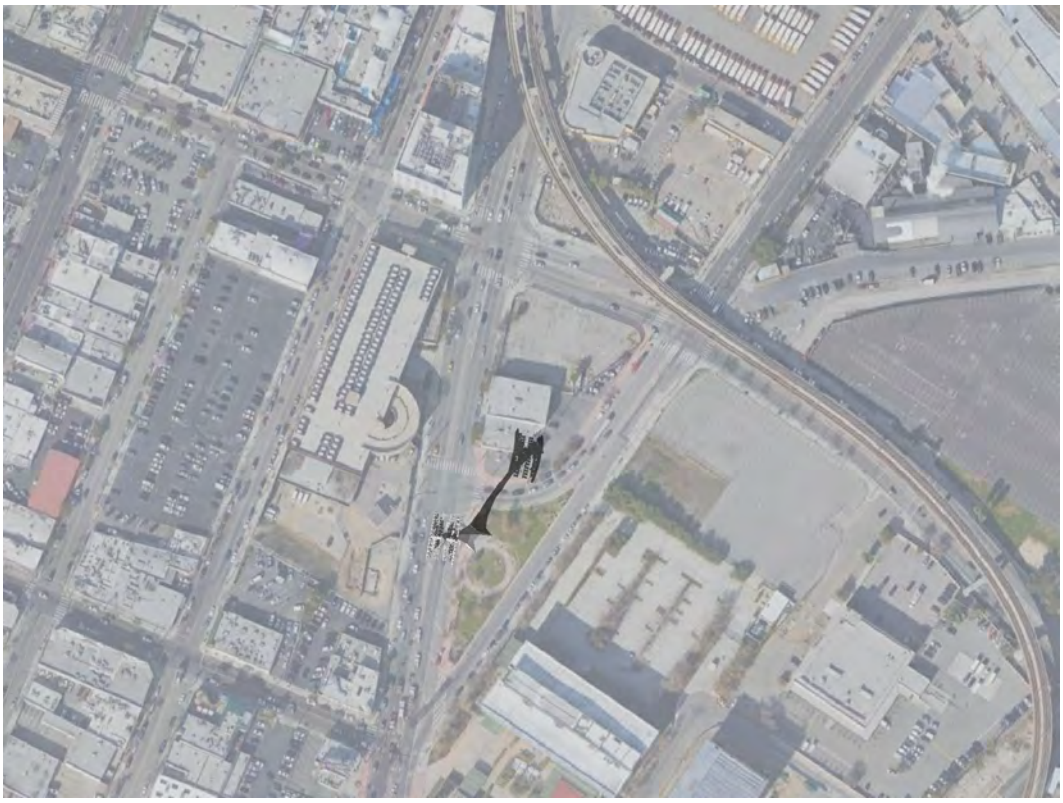
12 pm

AECOM

Figure 25
Alameda Tower Spring Shadows
11:00am - 12:00pm



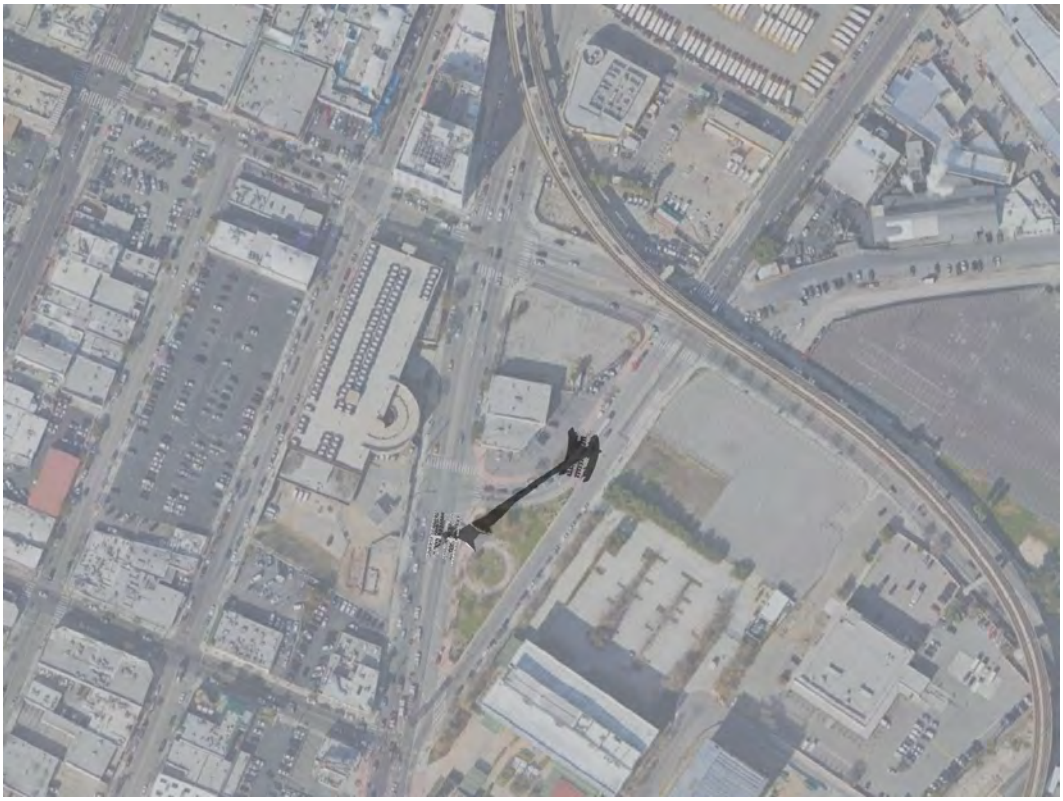
1 pm



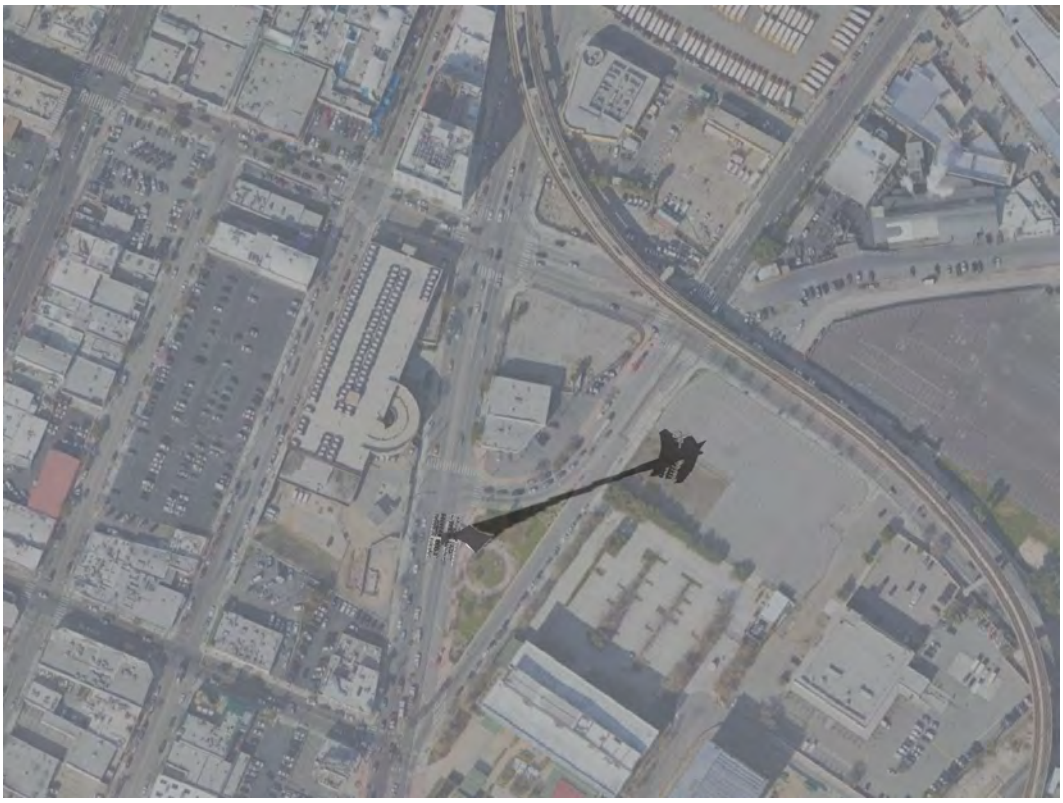
2 pm

AECOM

Figure 26
Alameda Tower Spring Shadows
1:00pm - 2:00pm



3 pm



4 pm

AECOM

Figure 27
Alameda Tower Spring Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 28
Alameda Tower Spring Shadows
5:00pm



9 am

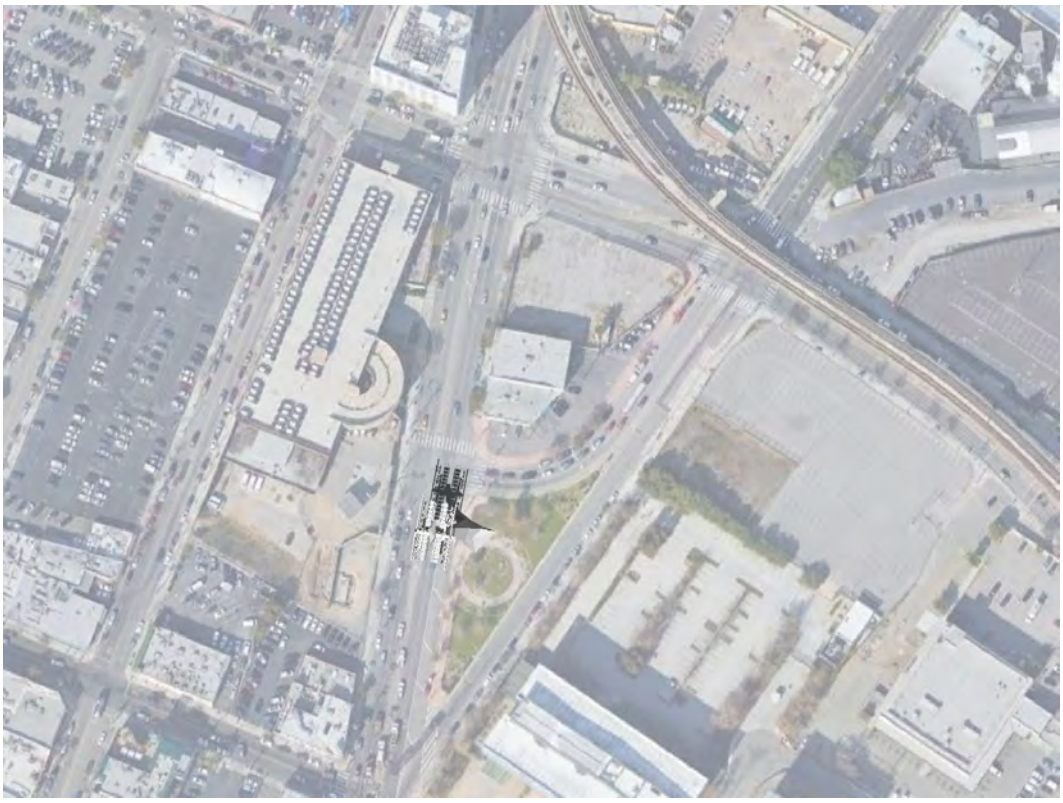


10 am

Figure 29
Alameda Tower Summer Shadows
9:00am - 10:00am



11 am

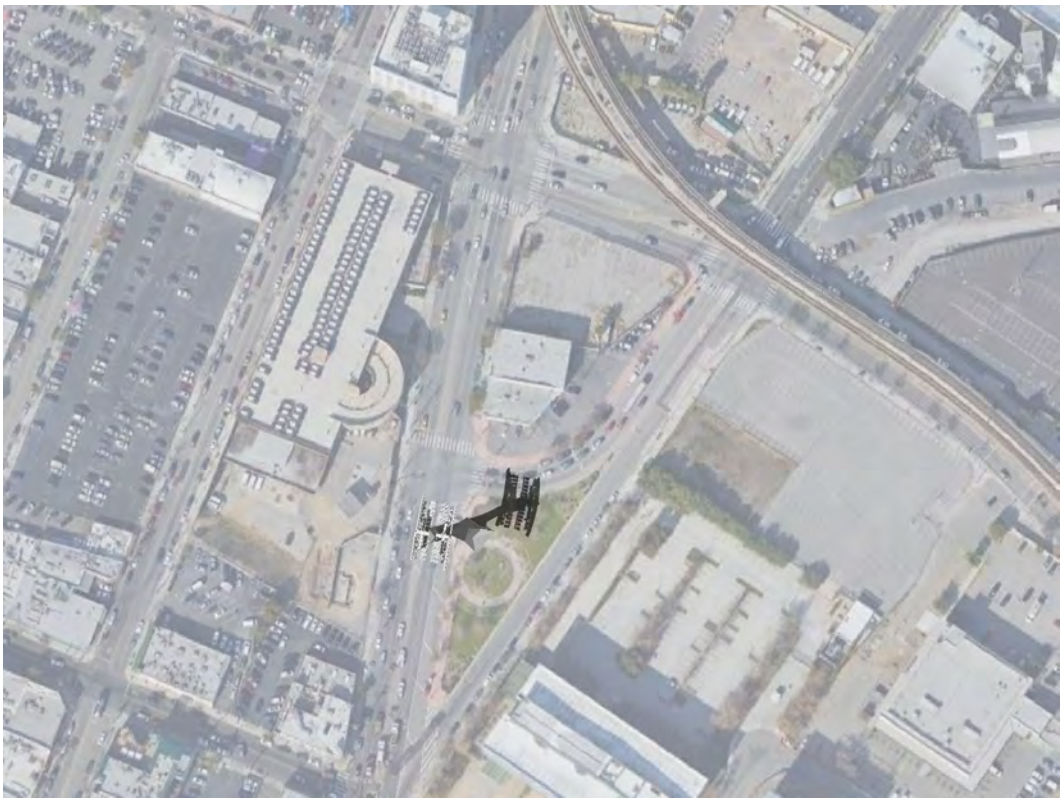


12 pm

Figure 30
Alameda Tower Summer Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 31
Alameda Tower Summer Shadows
1:00pm - 2:00pm



3 pm



4 pm

AECOM

Figure 32
Alameda Tower Summer Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 33
Alameda Tower Summer Shadows
5:00pm



9 am



10 am

Figure 34
Alameda Tower Fall Shadows
9:00am - 10:00am



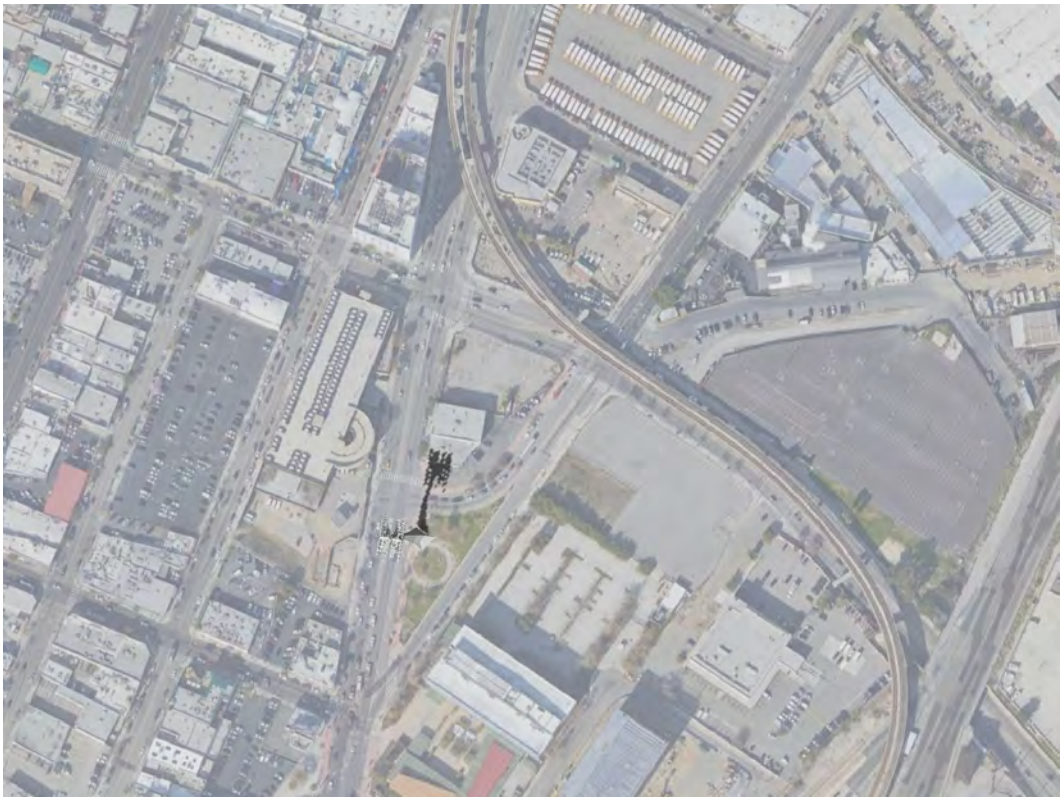
11 am



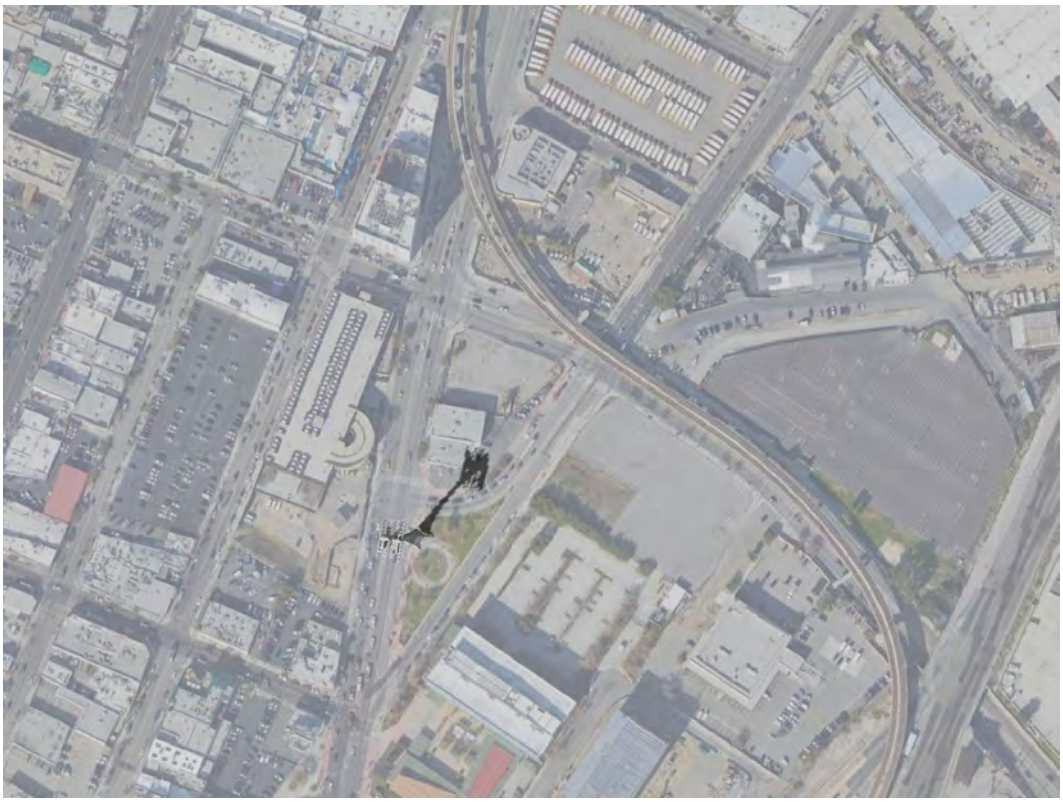
12 pm

AECOM

Figure 35
Alameda Tower Fall Shadows
11:00am - 12:00pm



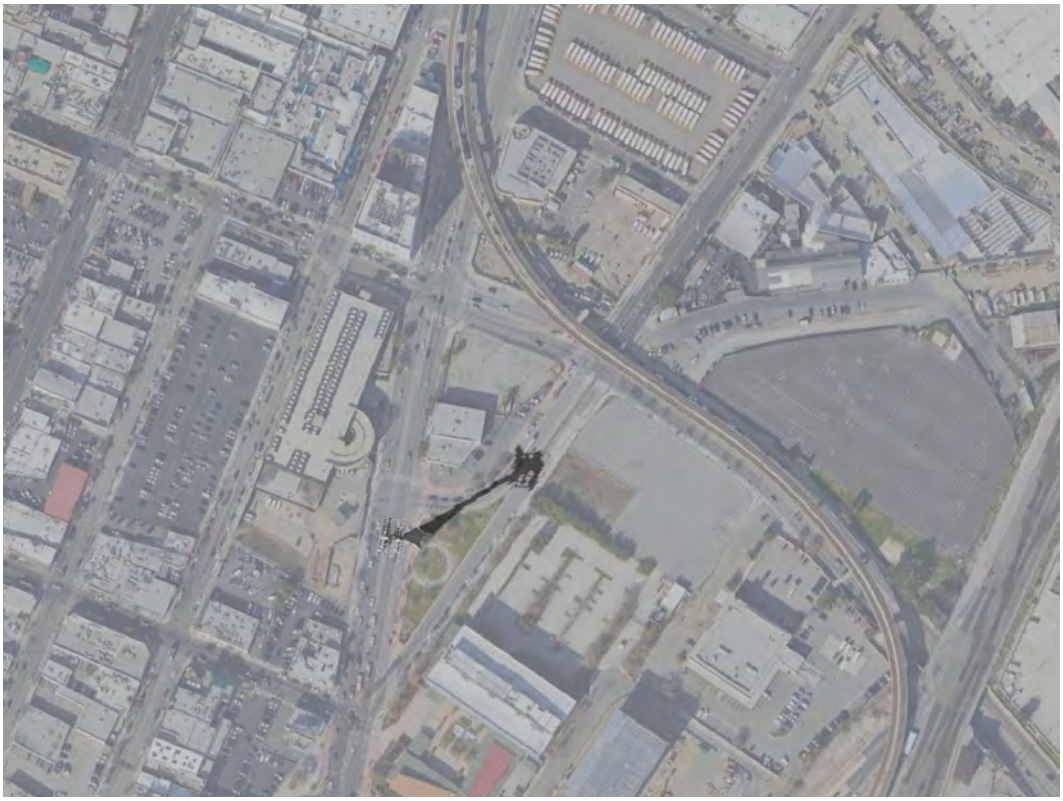
1 pm



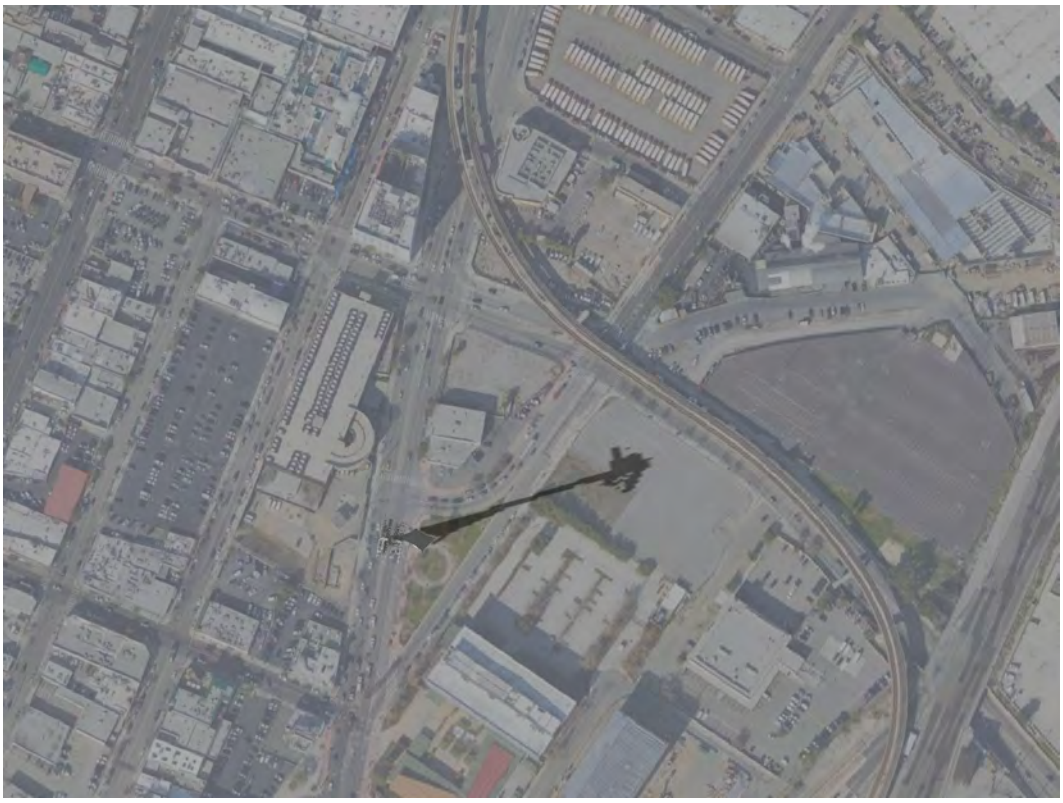
2 pm

AECOM

Figure 36
Alameda Tower Fall Shadows
1:00pm - 2:00pm



3 pm



4 pm

AECOM

Figure 37
Alameda Tower Fall Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 38
Alameda Tower Fall Shadows
5:00pm



9 am



10 am

Figure 39
Alpine Tower Winter Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 40
Alpine Tower Winter Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 41
Alpine Tower Winter Shadows
1:00pm - 2:00pm



3 pm

AECOM

Figure 42
Alpine Tower Winter Shadows
3:00pm



9 am



10 am

Figure 43
Alpine Tower Spring Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 44
Alpine Tower Spring Shadows
11:00am - 12:00pm



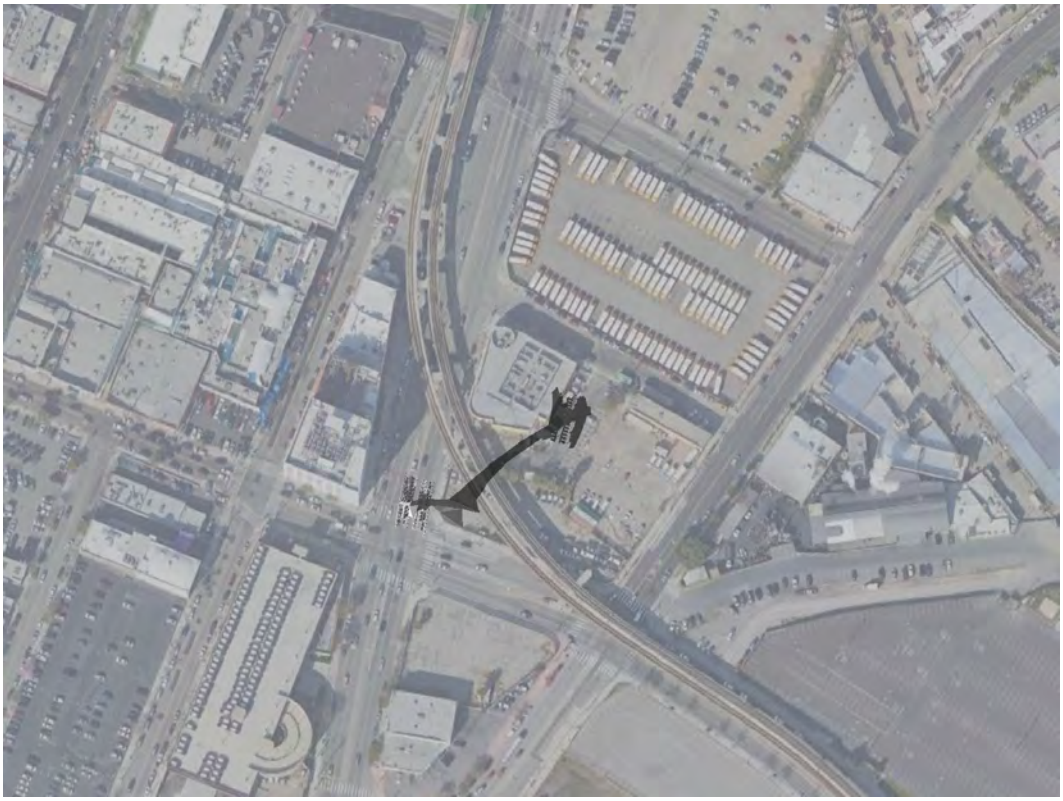
1 pm



2 pm

AECOM

Figure 45
Alpine Tower Spring Shadows
1:00pm - 2:00pm



3 pm



4 pm

Figure 46
Alpine Tower Spring Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 47
Alpine Tower Spring Shadows
5:00pm

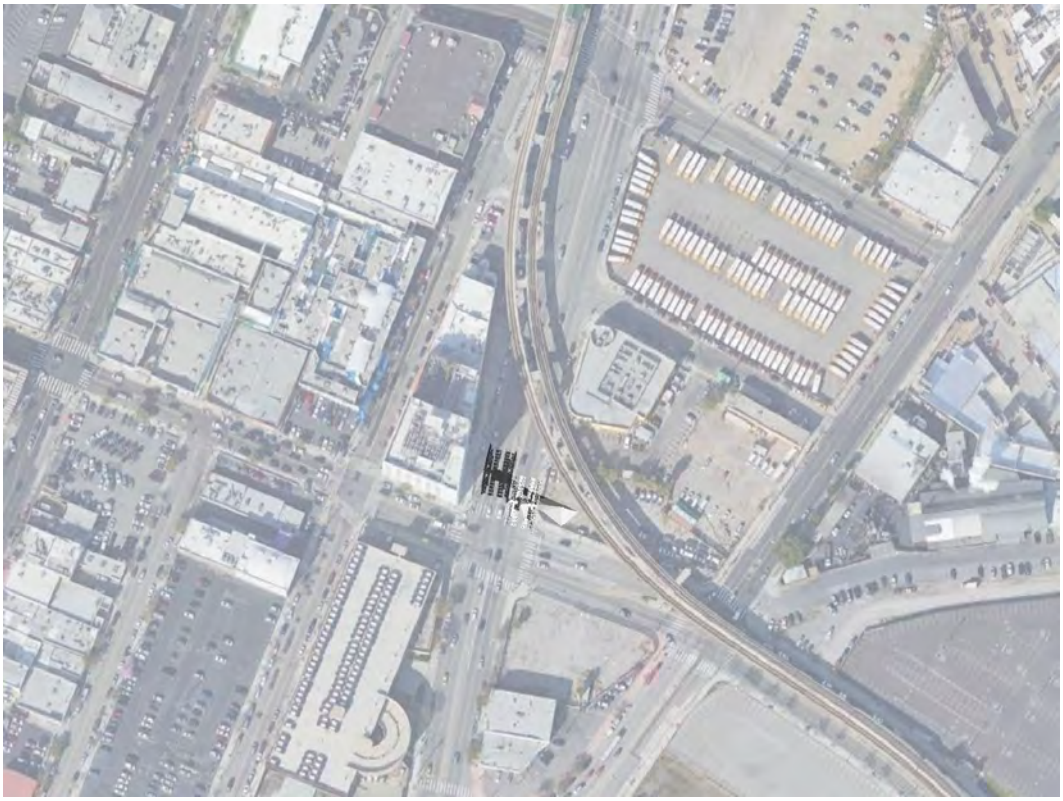


9 am

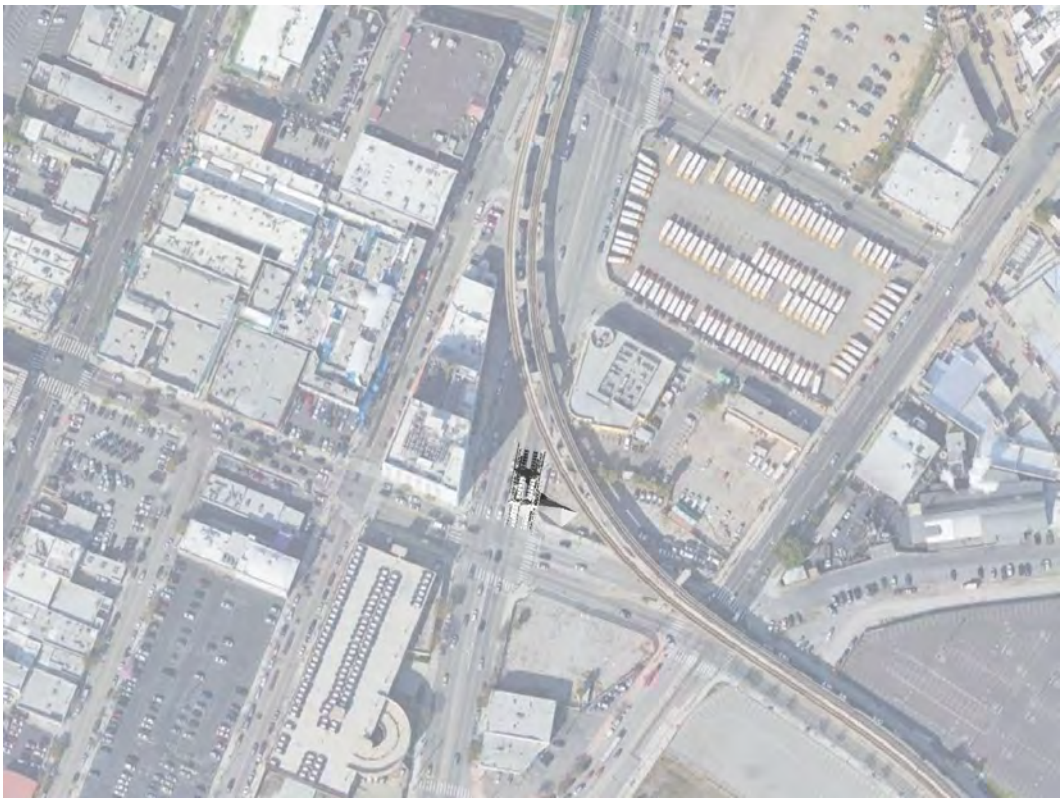


10 am

Figure 48
Alpine Tower Summer Shadows
9:00am - 10:00am



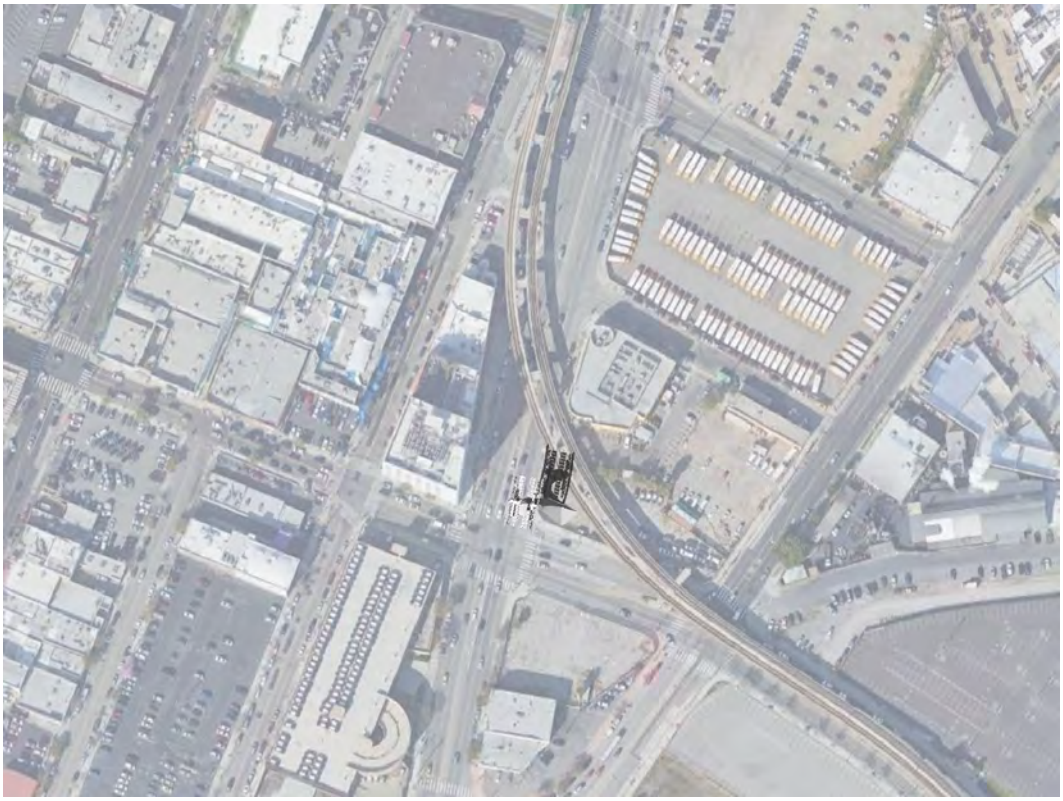
11 am



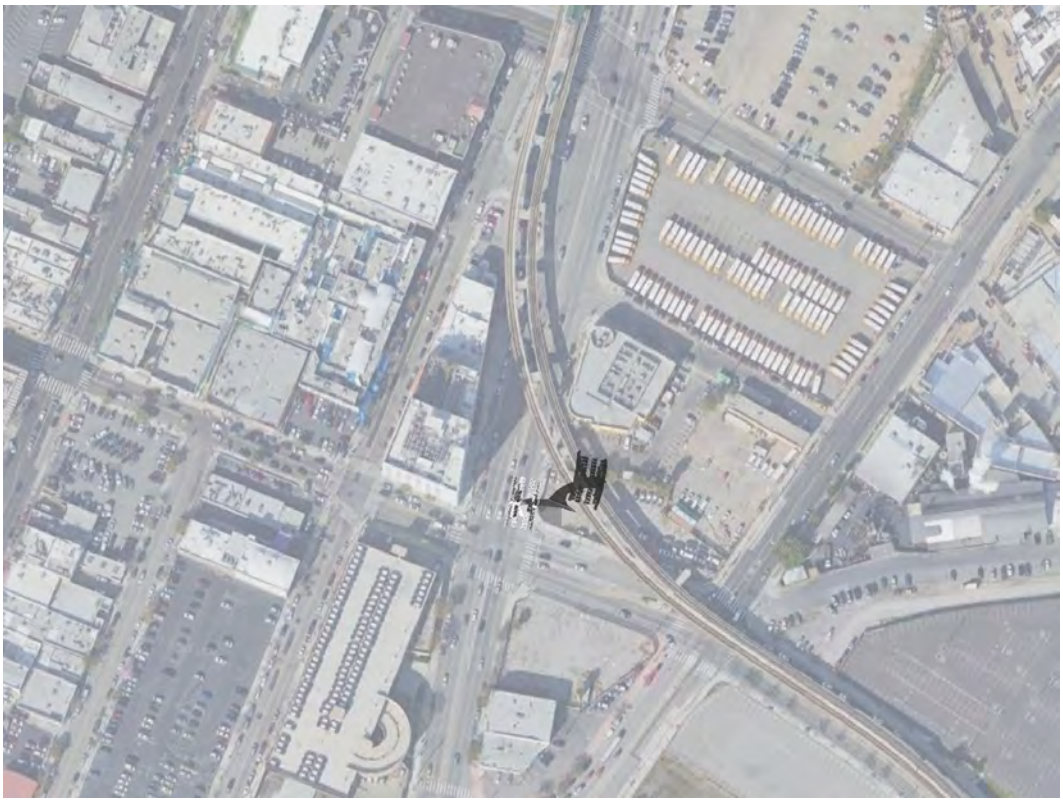
12 pm

AECOM

Figure 49
Alpine Tower Summer Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 50
Alpine Tower Summer Shadows
1:00pm - 2:00pm



3 pm



4 pm

Figure 51
Alpine Tower Summer Shadows
3:00pm - 4:00pm



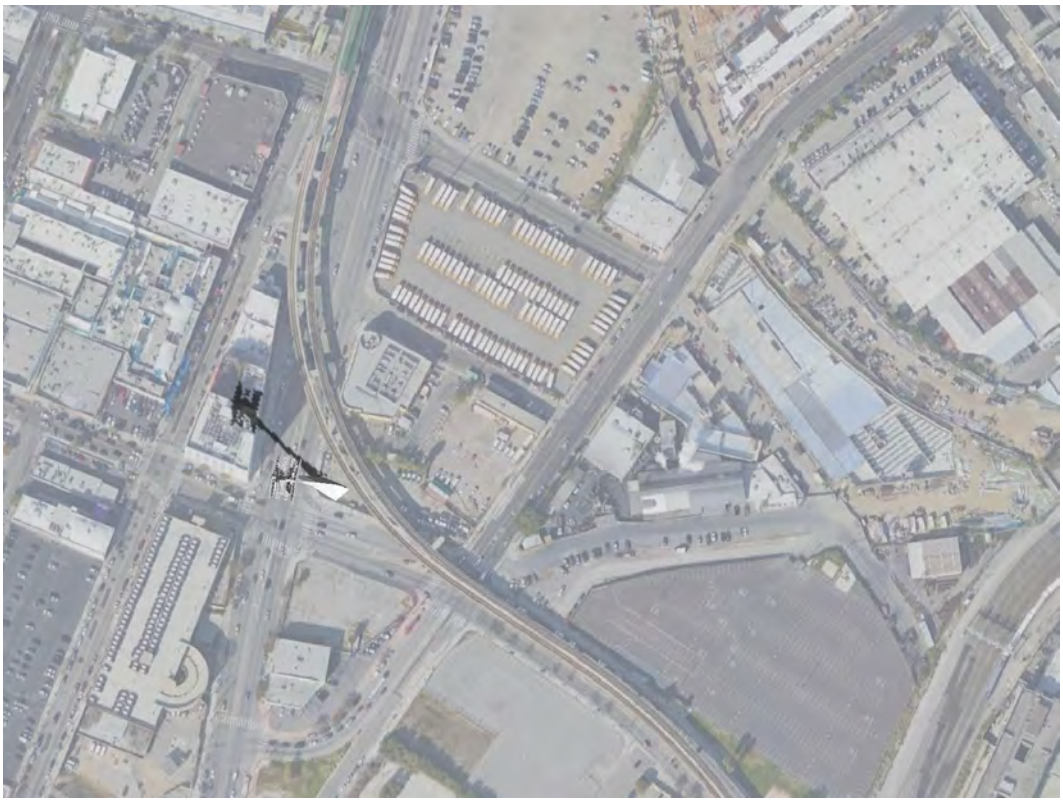
5 pm

AECOM

Figure 52
Alpine Tower Summer Shadows
5:00pm



9 am



10 am

AECOM

Figure 53
Alpine Tower Fall Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 54
Alpine Tower Fall Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 55
Alpine Tower Fall Shadows
1:00pm - 2:00pm



3 pm



4 pm

AECOM

Figure 56
Alpine Tower Fall Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 57
Alpine Tower Fall Shadows
5:00pm



9 am



10 am

AECOM

Figure 58
Chinatown/State Park Station Winter Shadows
9:00am - 10:00am



11 am



12 pm

Figure 59
Chinatown/State Park Station Winter Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 60
Chinatown/State Park Station Winter Shadows
1:00pm - 2:00pm



3 pm

AECOM

Figure 61
Chinatown/State Park Station Winter Shadows
3:00pm



9 am



10 am

Figure 62
Chinatown/State Park Station Spring Shadows
9:00am - 10:00am



11 am



12 pm

Figure 63
Chinatown/State Park Station Spring Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 64
Chinatown/State Park Station Spring Shadows
1:00pm - 2:00pm



3 pm



4 pm

AECOM

Figure 65
Chinatown/State Park Station Spring Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 66
Chinatown/State Park Station Spring Shadows
5:00pm



9 am



10 am

Figure 67
Chinatown/State Park Station Summer Shadows
9:00am - 10:00am



11 am



12 pm

Figure 68
Chinatown/State Park Station Summer Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 69
Chinatown/State Park Station Summer Shadows
1:00pm - 2:00pm



3 pm



4 pm

AECOM

Figure 70
Chinatown/State Park Station Summer Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 71
Chinatown/State Park Station Summer Shadows
5:00pm



9 am



10 am

AECOM

Figure 72
Chinatown/State Park Station Fall Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 73
Chinatown/State Park Station Fall Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 74
Chinatown/State Park Station Fall Shadows
1:00pm - 2:00pm



3 pm



4 pm

AECOM

Figure 75
Chinatown/State Park Station Fall Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 76
Chinatown/State Park Station Fall Shadows
5:00pm



9 am



10 am

AECOM

Figure 77
Broadway Junction Winter Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 78
Broadway Junction Winter Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 79
Broadway Junction Winter Shadows
1:00pm - 2:00pm



3 pm

AECOM

Figure 80
Broadway Junction Winter Shadows
3:00pm



9 am



10 am

AECOM

Figure 81
Broadway Junction Spring Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 82
Broadway Junction Spring Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 83
Broadway Junction Spring Shadows
1:00pm - 2:00pm



3 pm



4 pm

AECOM

Figure 84
Broadway Junction Spring Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 85
Broadway Junction Spring Shadows
5:00pm



9 am



10 am

AECOM

Figure 86
Broadway Junction Summer Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 87
Broadway Junction Summer Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 88
Broadway Junction Summer Shadows
1:00pm - 2:00pm



3 pm



4 pm

AECOM

Figure 89
Broadway Junction Summer Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 90
Broadway Junction Summer Shadows
5:00pm



9 am



10 am

AECOM

Figure 91
Broadway Junction Fall Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 92
Broadway Junction Fall Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 93
Broadway Junction Fall Shadows
1:00pm - 2:00pm



3 pm



4 pm

AECOM

Figure 94
Broadway Junction Fall Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 95
Broadway Junction Fall Shadows
5:00pm



9 am



10 am

AECOM

Figure 96
Stadium Tower Winter Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 97
Stadium Tower Winter Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 98
Stadium Tower Winter Shadows
1:00pm - 2:00pm



3 pm

AECOM

Figure 99
Stadium Tower Winter Shadows
3:00pm



9 am



10 am

AECOM

Figure 100
Stadium Tower Spring Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 101
Stadium Tower Spring Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 102
Stadium Tower Spring Shadows
1:00pm - 2:00pm



3 pm



4 pm

AECOM

Figure 103
Stadium Tower Spring Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 104
Stadium Tower Spring Shadows
5:00pm



9 am



10 am

AECOM

Figure 105
Stadium Tower Summer Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 106
Stadium Tower Summer Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 107
Stadium Tower Summer Shadows
1:00pm - 2:00pm



3 pm



4 pm

Figure 108
Stadium Tower Summer Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 109
Stadium Tower Summer Shadows
5:00pm



9 am



10 am

AECOM

Figure 110
Stadium Tower Fall Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 111
Stadium Tower Fall Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 112
Stadium Tower Fall Shadows
1:00pm - 2:00pm



3 pm



4 pm

AECOM

Figure 113
Stadium Tower Fall Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 114
Stadium Tower Fall Shadows
5:00pm

Spring Street Alignment Alternative



9 am



10 am

Figure 115
State Park Station Winter Shadows
9:00am - 10:00am



11 am



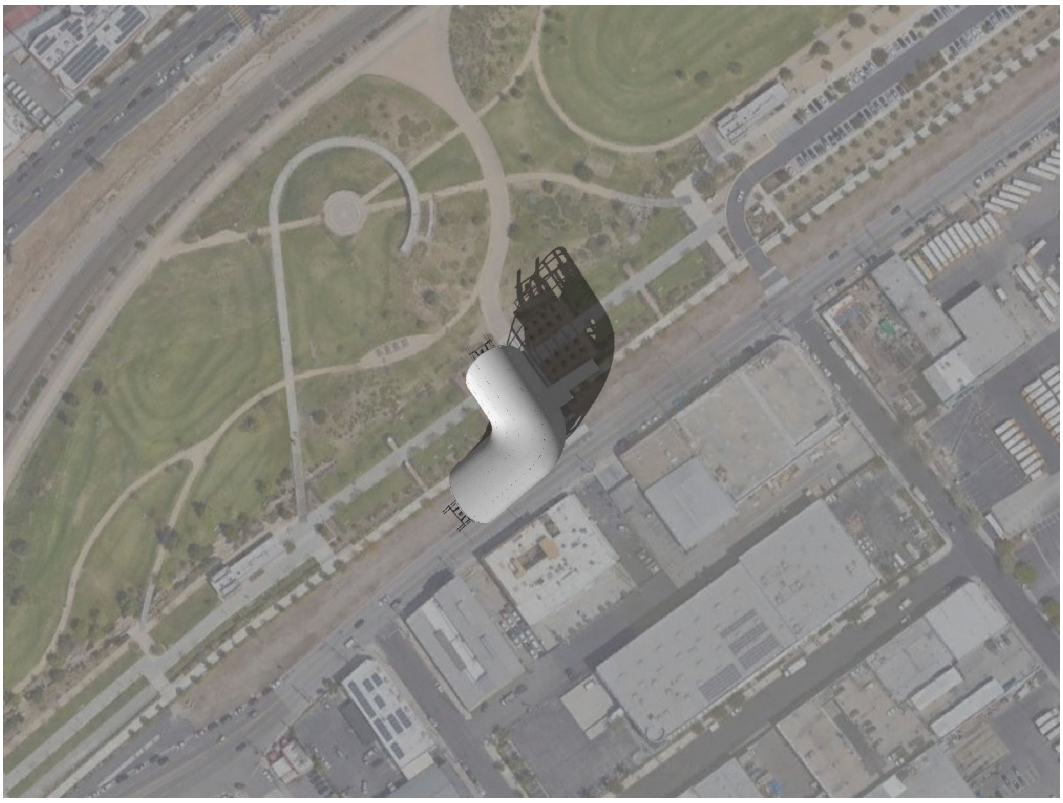
12 pm

AECOM

Figure 116
State Park Station Winter Shadows
11:00am - 12:00pm



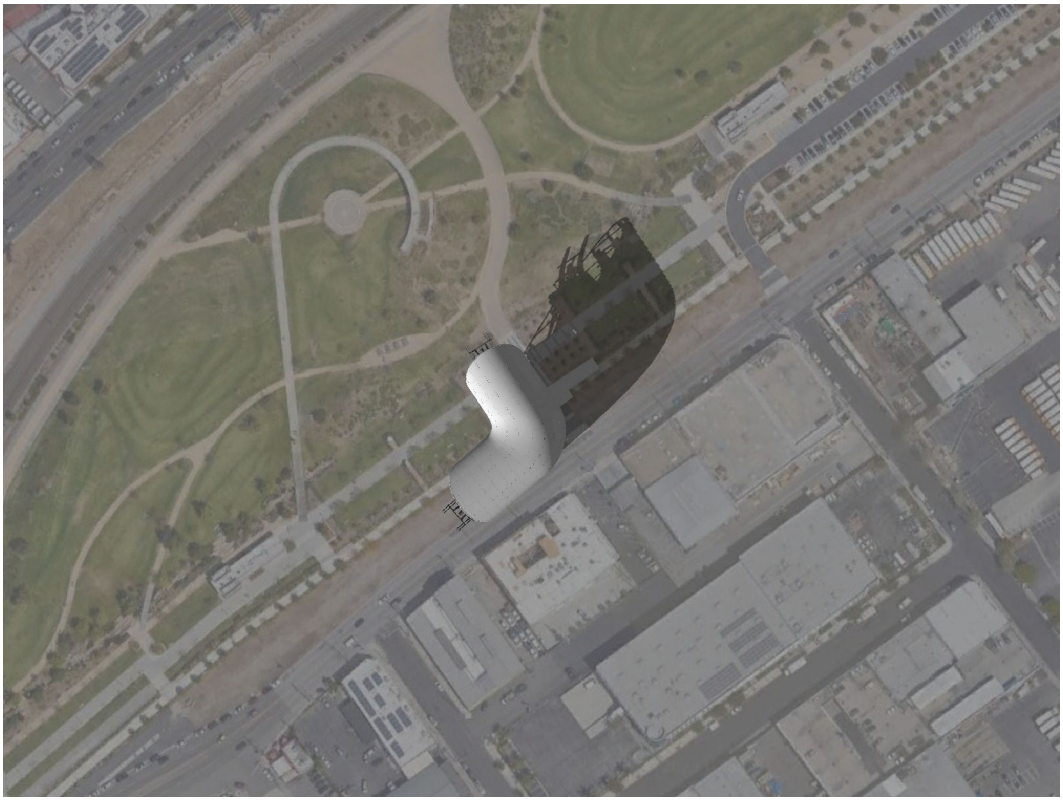
1 pm



2 pm

AECOM

Figure 117
State Park Station Winter Shadows
1:00pm - 2:00pm



3 pm

AECOM

Figure 118
State Park Station Winter Shadows
3:00pm



9 am



10 am

AECOM

Figure 119
State Park Station Spring Shadows
9:00am - 10:00am



11 am



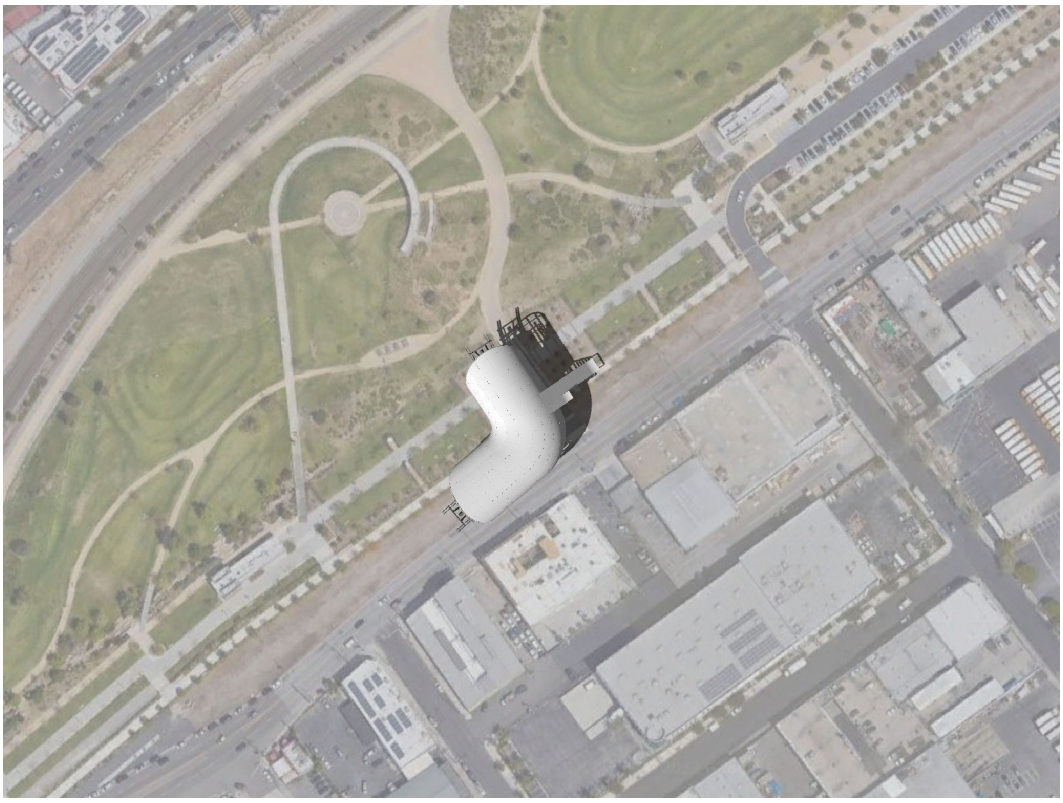
12 pm

AECOM

Figure 120
State Park Station Spring Shadows
11:00am - 12:00pm



1 pm



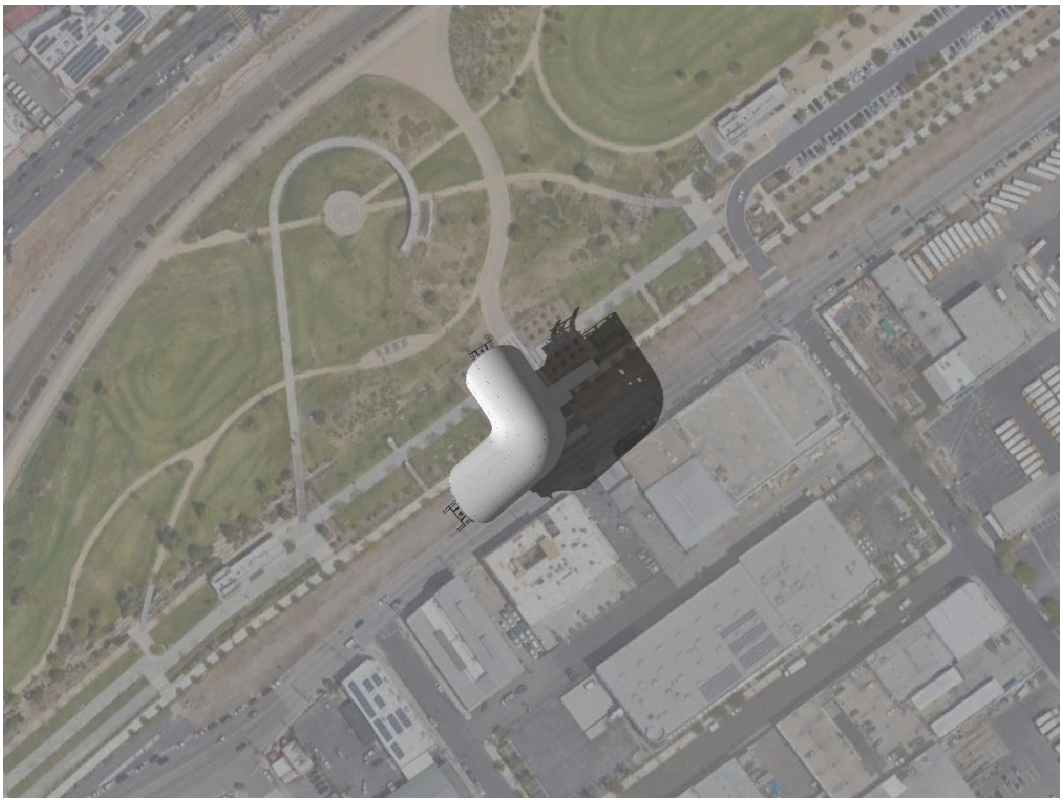
2 pm

AECOM

Figure 121
State Park Station Spring Shadows
1:00pm - 2:00pm



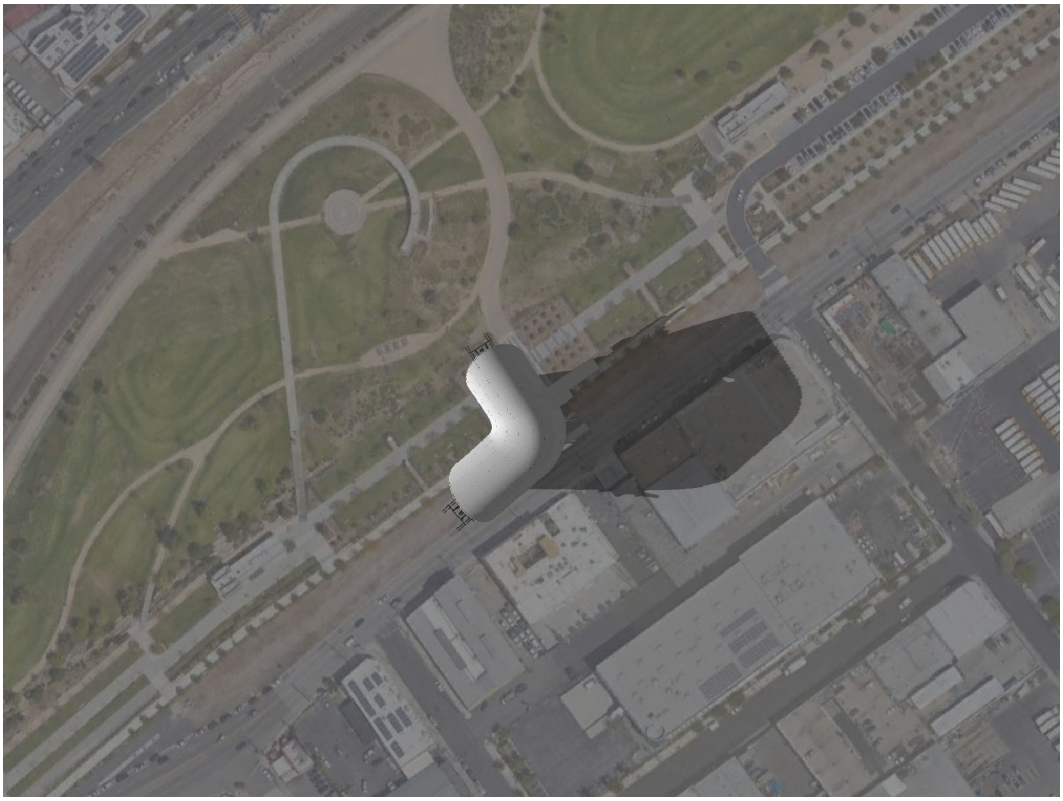
3 pm



4 pm

AECOM

Figure 122
State Park Station Spring Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 123
State Park Station Spring Shadows
5:00pm



9 am



10 am

AECOM

Figure 124
State Park Station Summer Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 125
State Park Station Summer Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 126
State Park Station Summer Shadows
1:00pm - 2:00pm



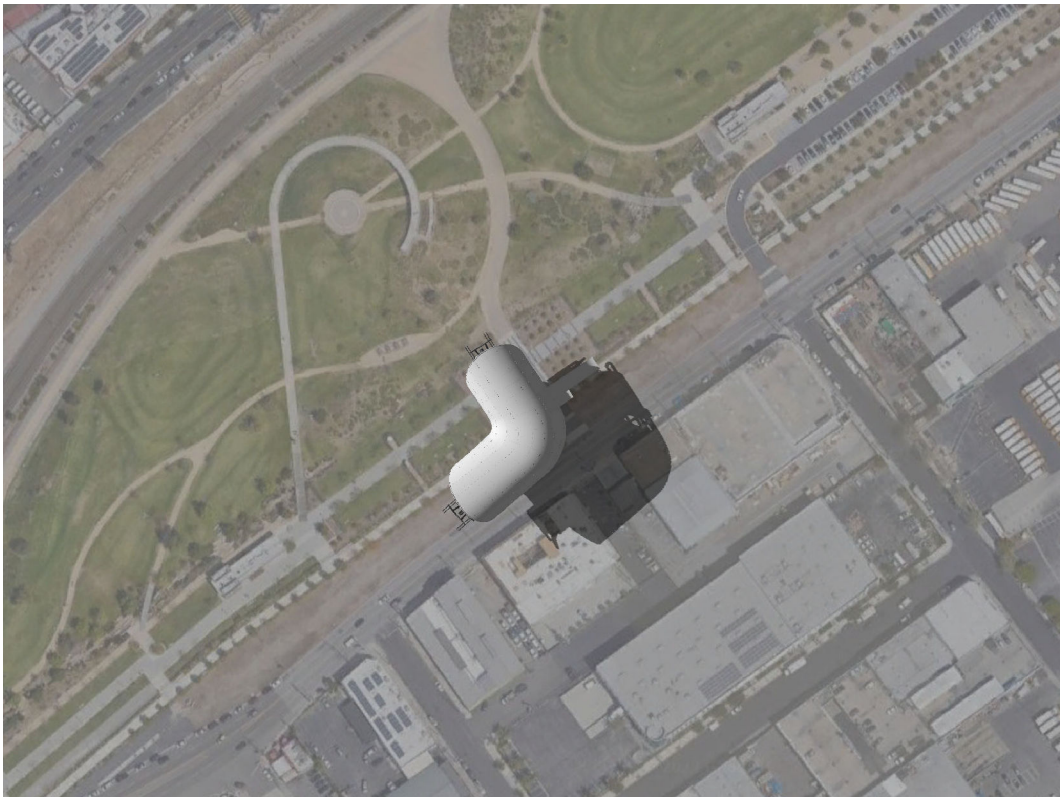
3 pm



4 pm

AECOM

Figure 127
State Park Station Summer Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 128
State Park Station Summer Shadows
5:00pm



9 am



10 am

Figure 129
State Park Station Fall Shadows
9:00am - 10:00am



11 am



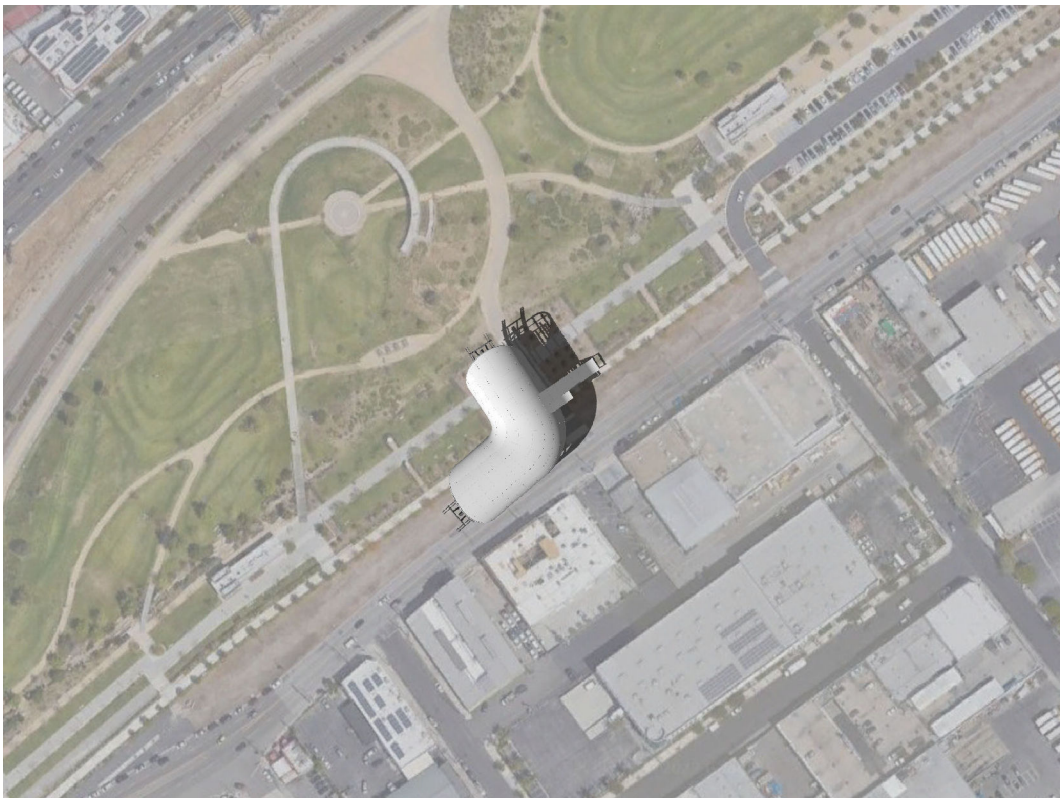
12 pm

AECOM

Figure 130
State Park Station Fall Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 131
State Park Station Fall Shadows
1:00pm - 2:00pm

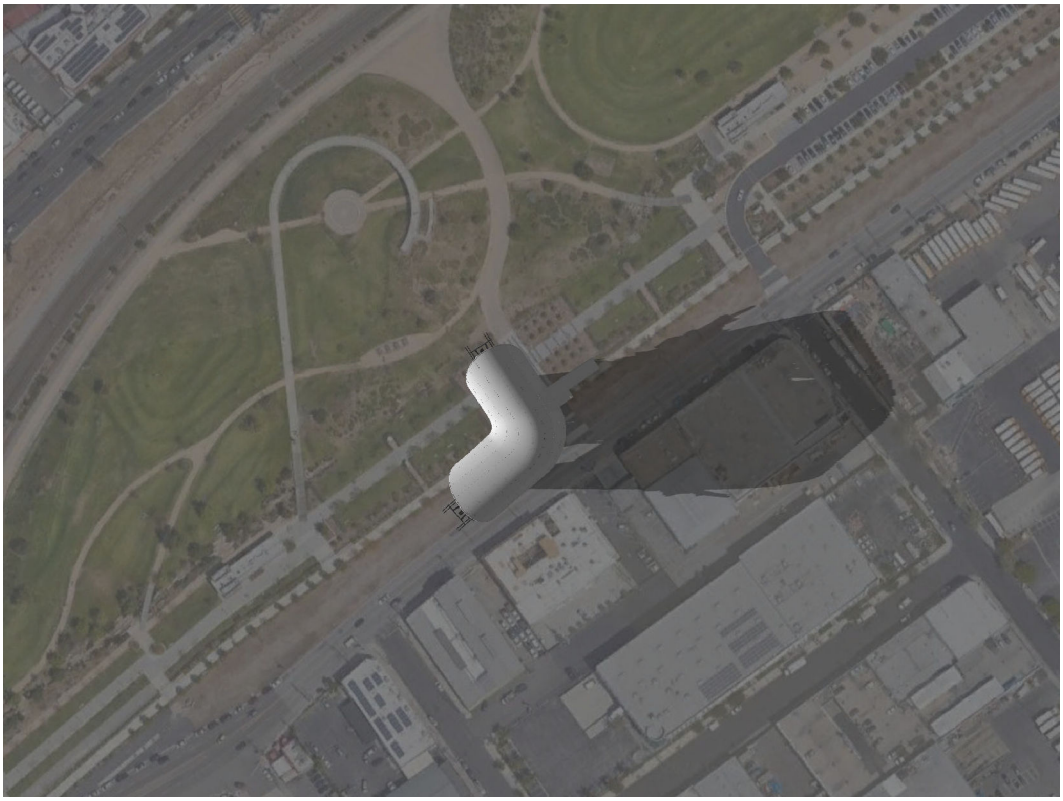


3 pm



4 pm

Figure 132
State Park Station Fall Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 133
State Park Station Fall Shadows
5:00pm



9 am



10 am

Figure 134
Bishops Tower Winter Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 135
Bishops Tower Winter Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 136
Bishops Tower Winter Shadows
1:00pm - 2:00pm



3 pm

AECOM

Figure 137
Bishops Tower Winter Shadows
3:00pm



9 am



10 am

AECOM

Figure 138
Bishops Tower Spring Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 139
Bishops Tower Spring Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 140
Bishops Tower Spring Shadows
1:00pm - 2:00pm



3 pm



4 pm

Figure 141
Bishops Tower Spring Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 142
Bishops Tower Spring Shadows
5:00pm



9 am



10 am

AECOM

Figure 143
Bishops Tower Summer Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 144
Bishops Tower Summer Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 145
Bishops Tower Summer Shadows
1:00pm - 2:00pm



3 pm



4 pm

Figure 146
Bishops Tower Summer Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 147
Bishops Tower Summer Shadows
5:00pm



9 am



10 am

AECOM

Figure 148
Bishops Tower Fall Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 149
Bishops Tower Fall Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 150
Bishops Tower Fall Shadows
1:00pm - 2:00pm



3 pm



4 pm

AECOM

Figure 151
Bishops Tower Fall Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 152
Bishops Tower Fall Shadows
5:00pm

Design Options A, B, C



9 am



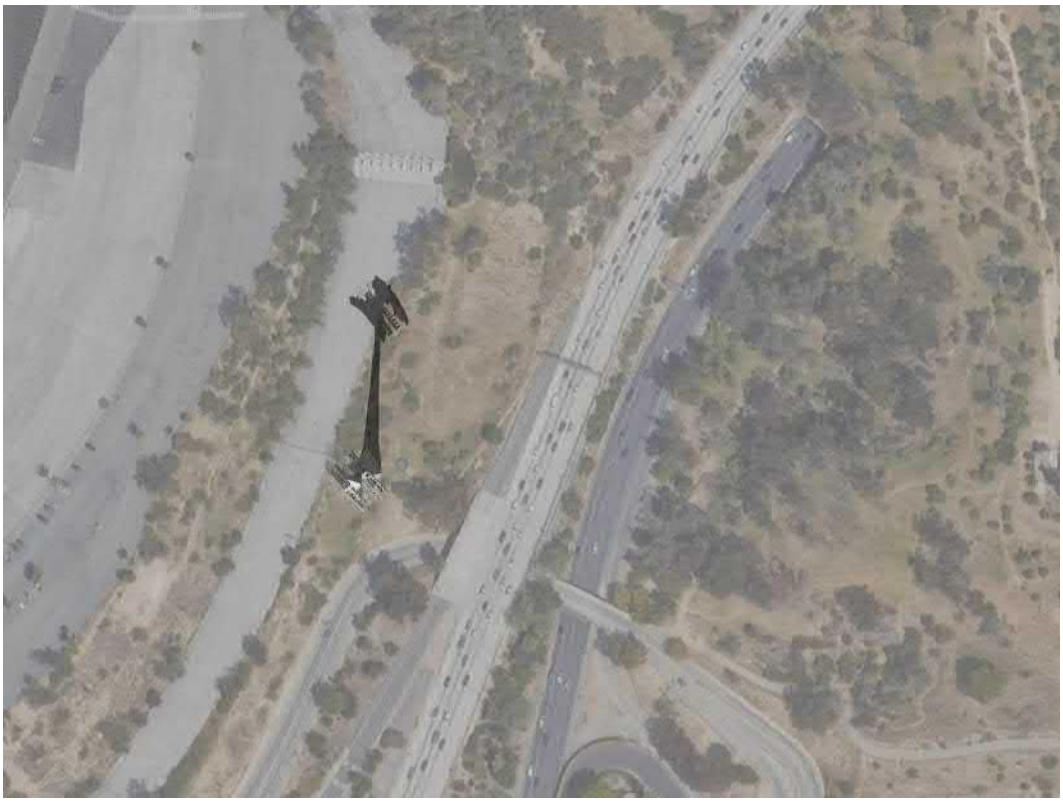
10 am

AECOM

Figure 153
Stadium Tower (Design Option A) Winter Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 154
Stadium Tower (Design Option A) Winter Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 155
Stadium Tower (Design Option A) Winter Shadows
1:00pm - 2:00pm



3 pm

AECOM

Figure 156
Stadium Tower (Design Option A) Winter Shadows
3:00pm



9 am



10 am

AECOM

Figure 157
Stadium Tower (Design Option A) Spring Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 158
Stadium Tower (Design Option A) Spring Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 159
Stadium Tower (Design Option A) Spring Shadows
1:00pm - 2:00pm



3 pm



4 pm

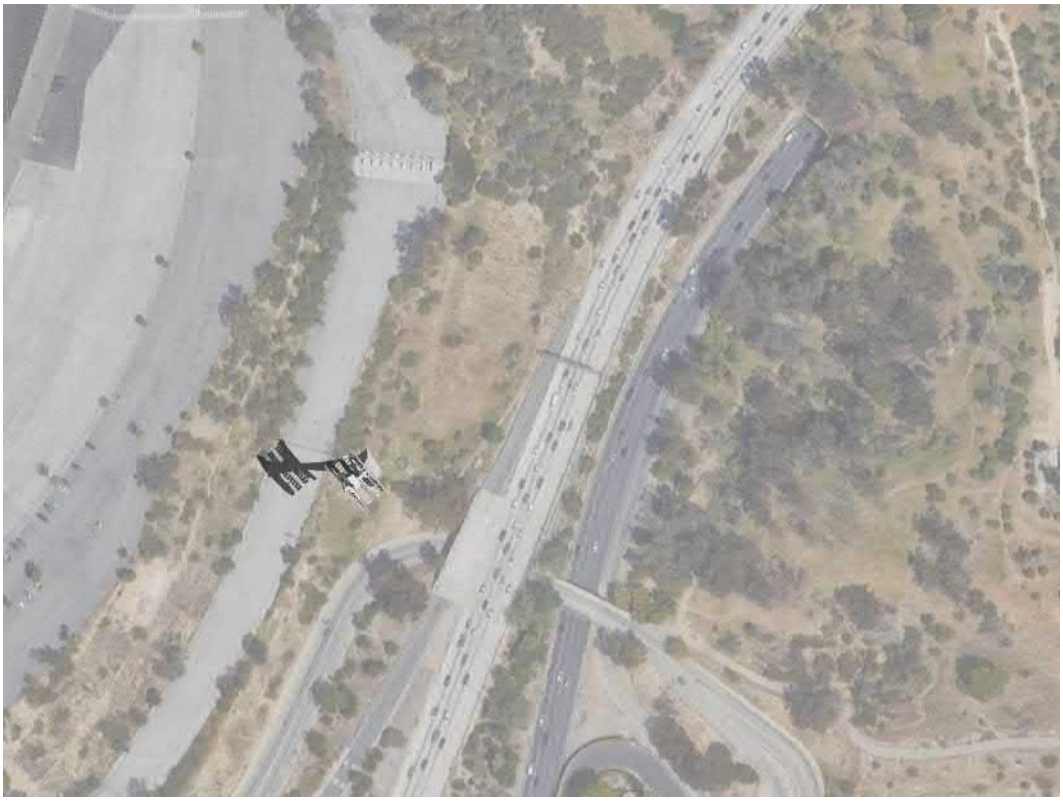
Figure 160
Stadium Tower (Design Option A) Spring Shadows
3:00pm - 4:00pm



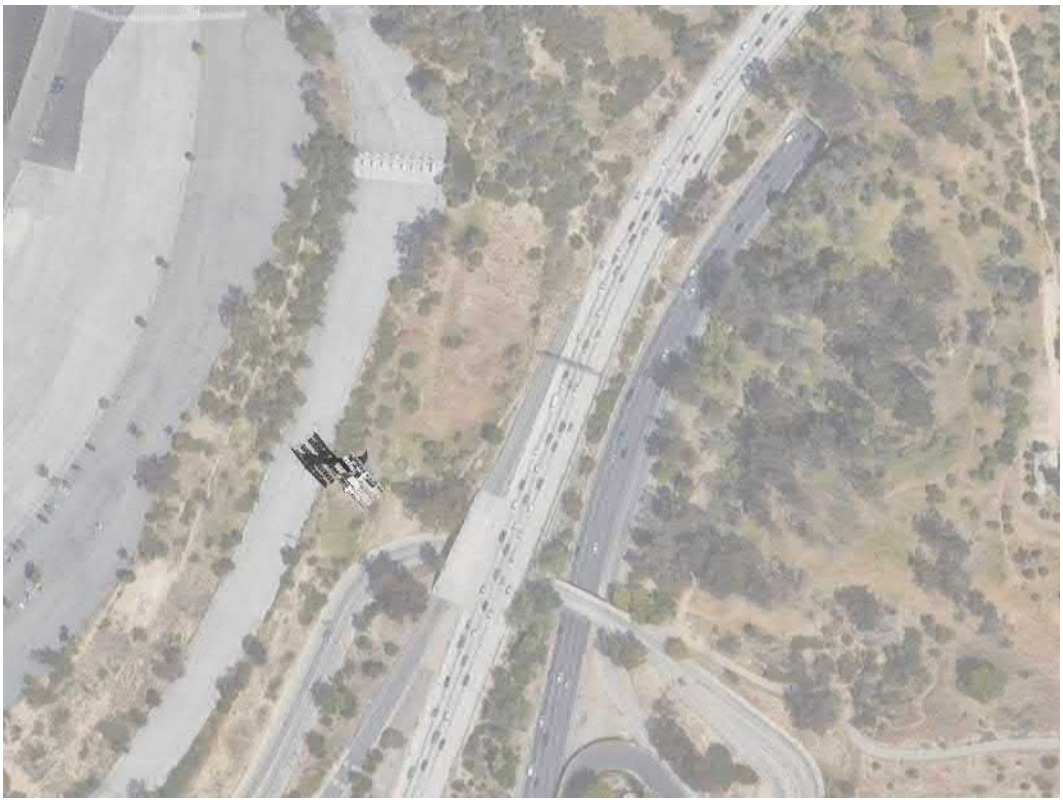
5 pm

AECOM

Figure 161
Stadium Tower (Design Option A) Spring Shadows
5:00pm



9 am



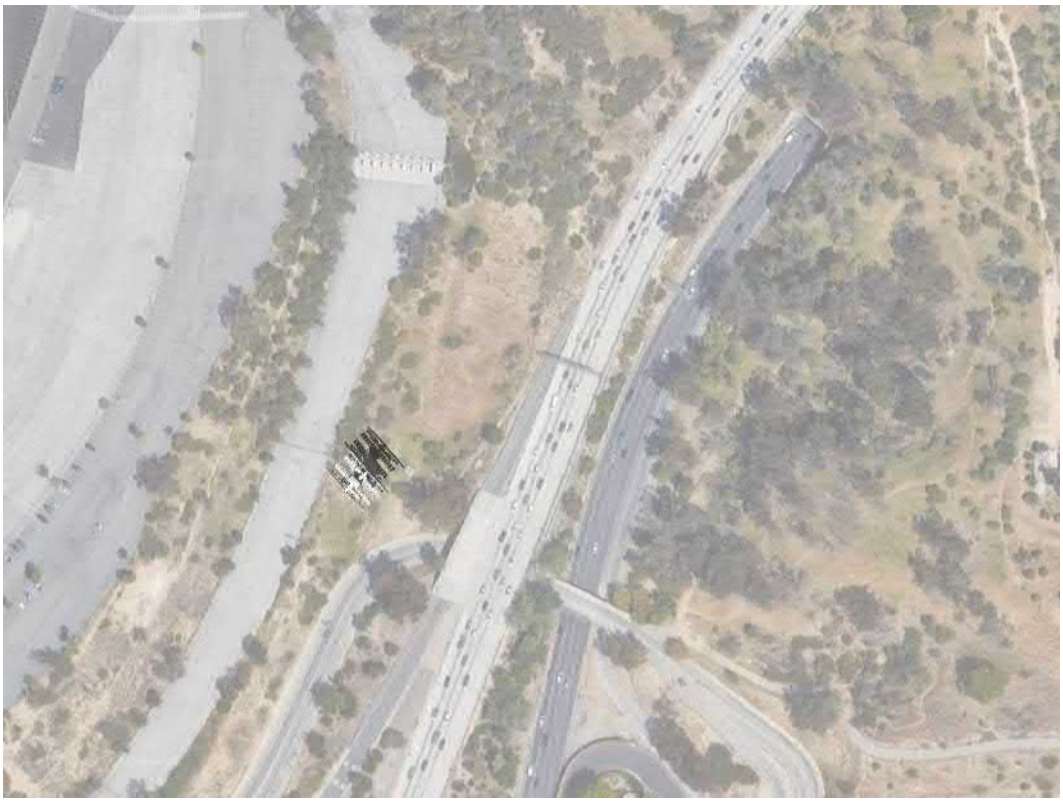
10 am

AECOM

Figure 162
Stadium Tower (Design Option A) Summer Shadows
9:00am - 10:00am

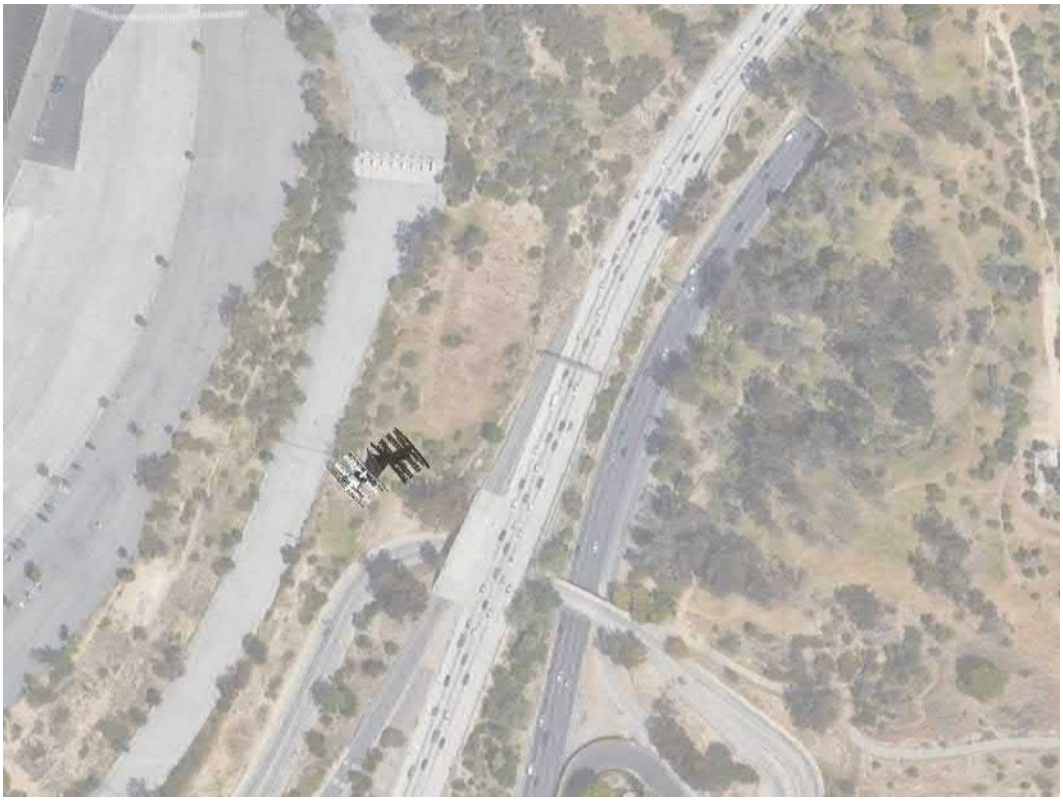


11 am

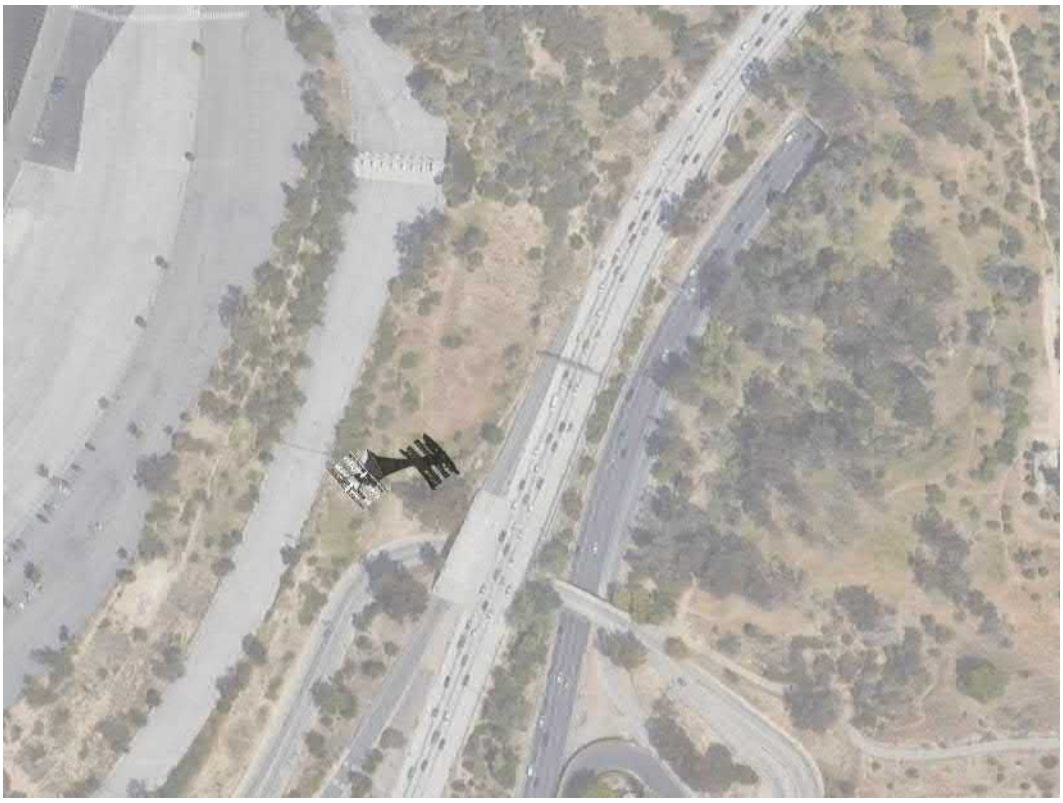


12 pm

Figure 163
Stadium Tower (Design Option A) Summer Shadows
11:00am - 12:00pm



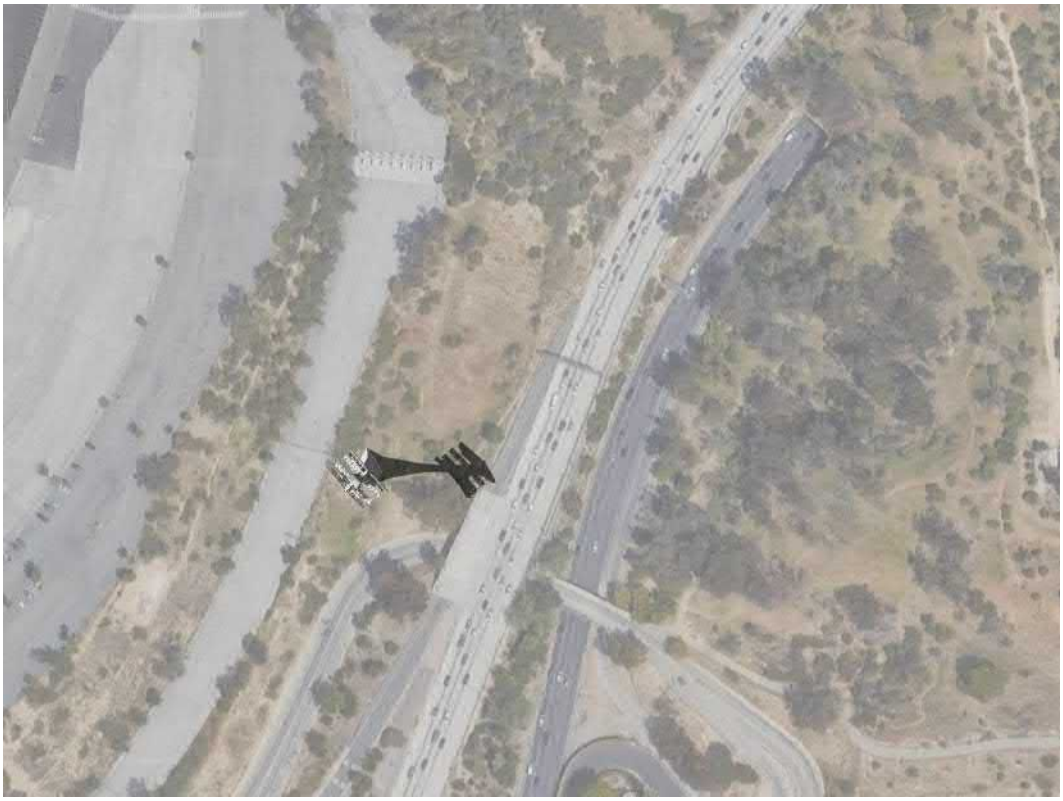
1 pm



2 pm

AECOM

Figure 164
Stadium Tower (Design Option A) Summer Shadows
1:00pm - 2:00pm



3 pm



4 pm

Figure 165
Stadium Tower (Design Option A) Summer Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 166
Stadium Tower (Design Option A) Summer Shadows
5:00pm



9 am



10 am

AECOM

Figure 167
Stadium Tower (Design Option A) Fall Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 168
Stadium Tower (Design Option A) Fall Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 169
Stadium Tower (Design Option A) Fall Shadows
1:00pm - 2:00pm



3 pm



4 pm

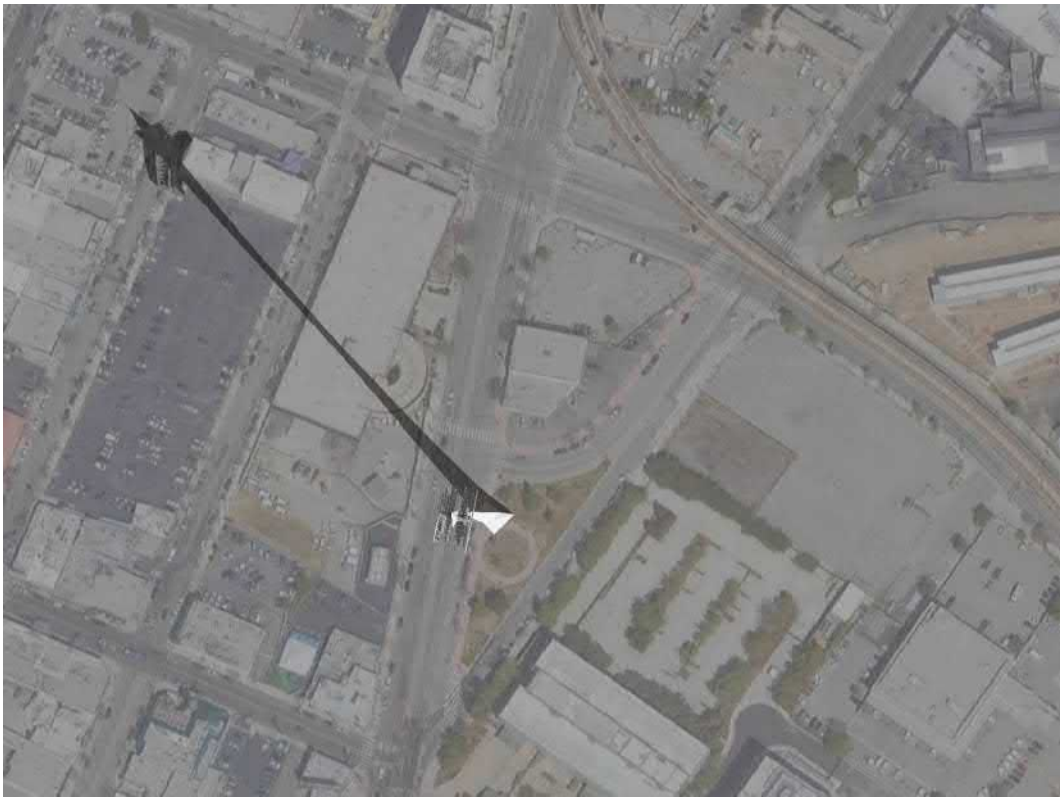
Figure 170
Stadium Tower (Design Option A) Fall Shadows
3:00pm - 4:00pm



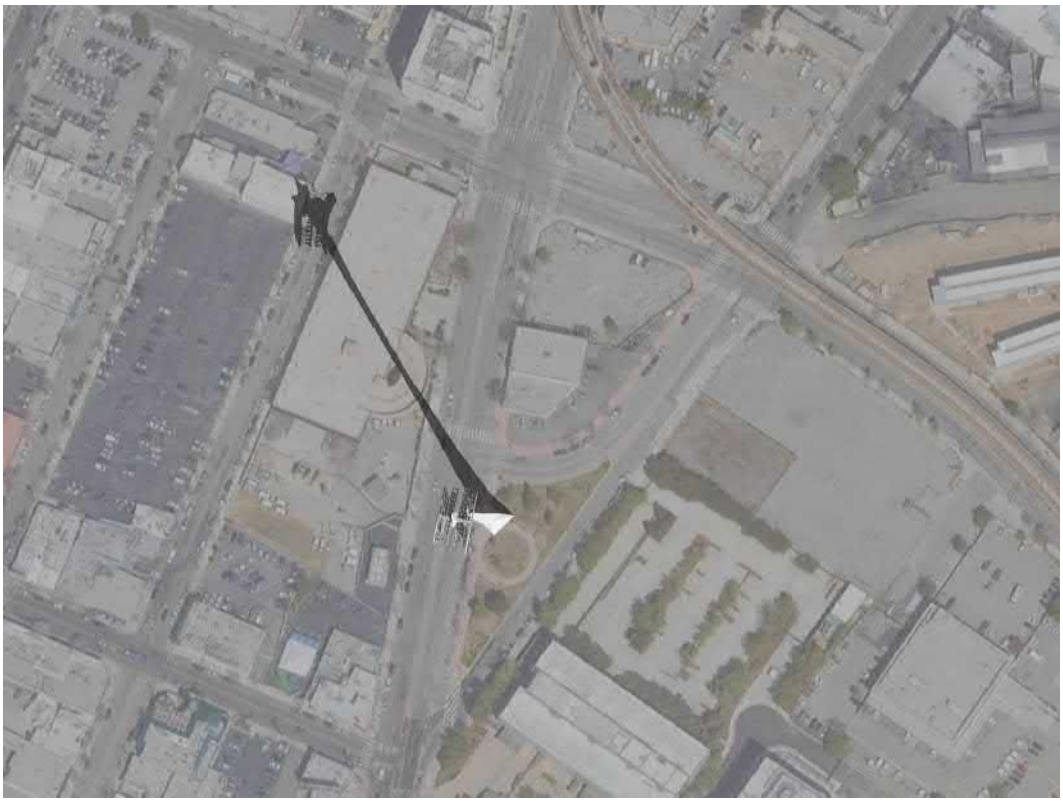
5 pm

AECOM

Figure 171
Stadium Tower (Design Option A) Fall Shadows
5:00pm

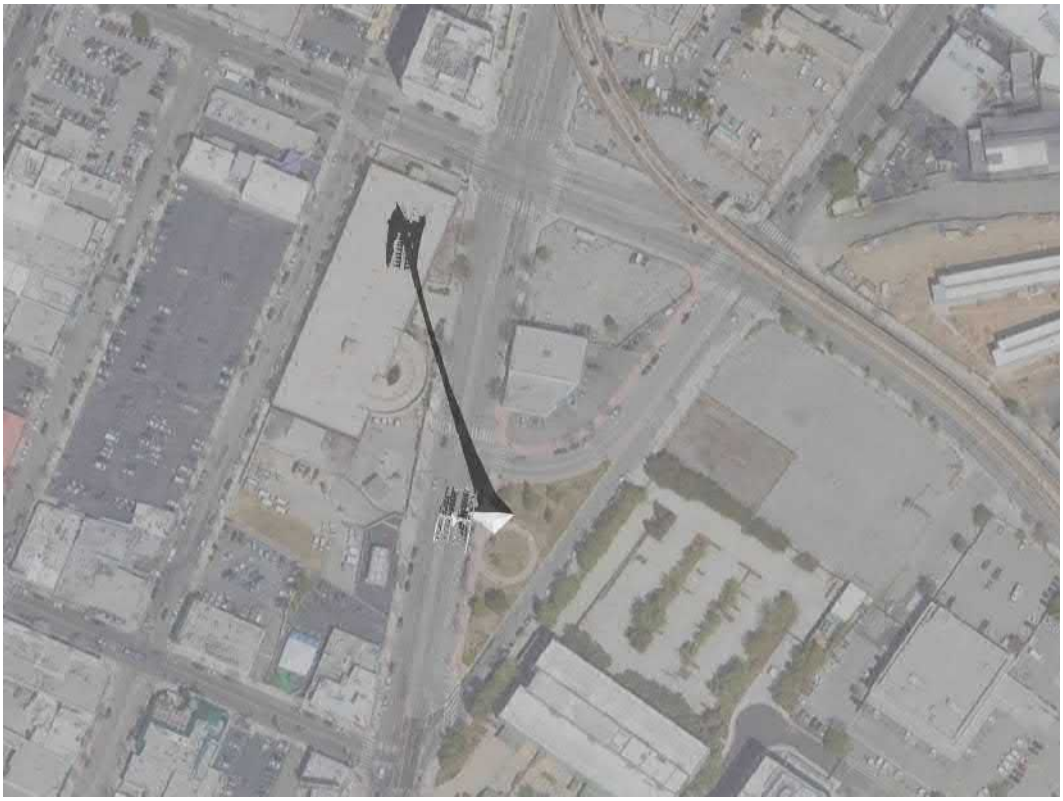


9 am

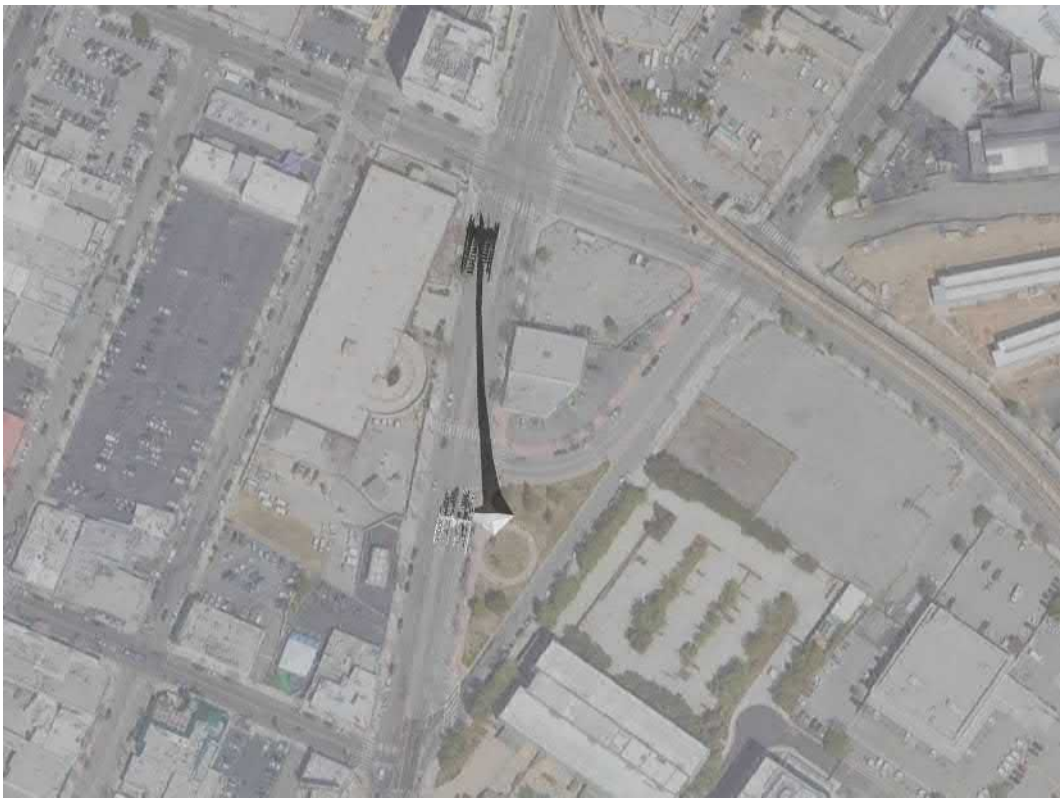


10 am

Figure 172
Alameda Tower (Design Option B) Winter Shadows
9:00am - 10:00am



11 am



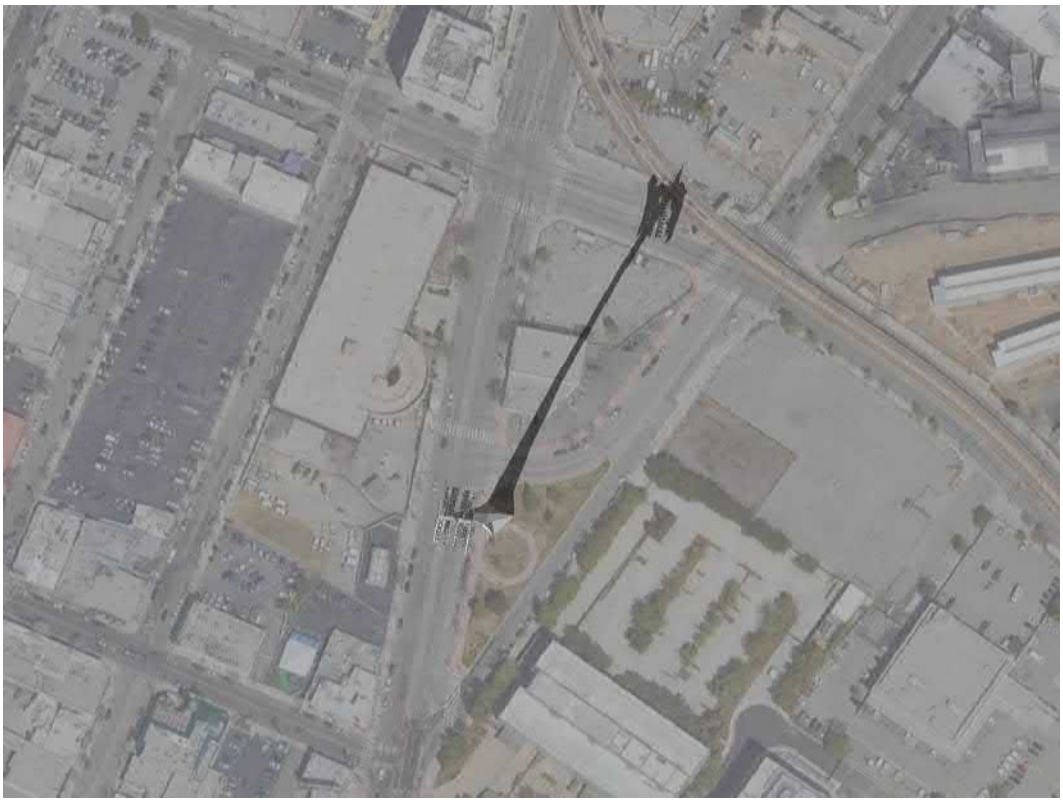
12 pm

AECOM

Figure 173
Alameda Tower (Design Option B) Winter Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

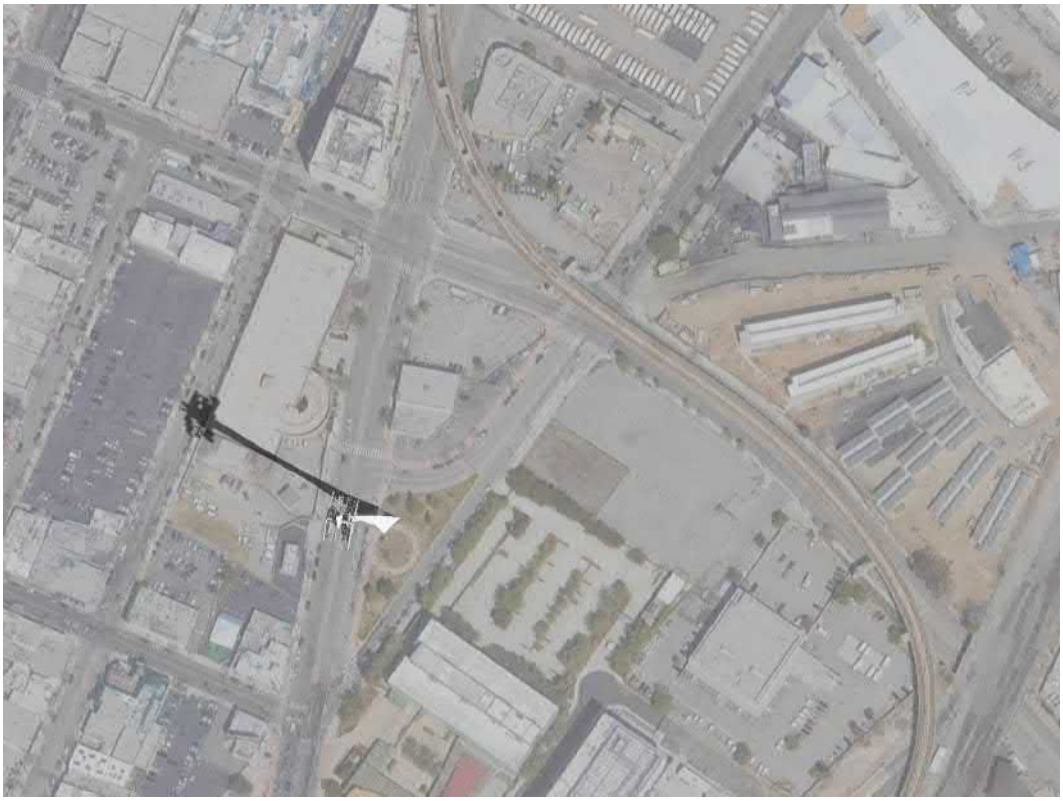
Figure 174
Alameda Tower (Design Option B) Winter Shadows
1:00pm - 2:00pm



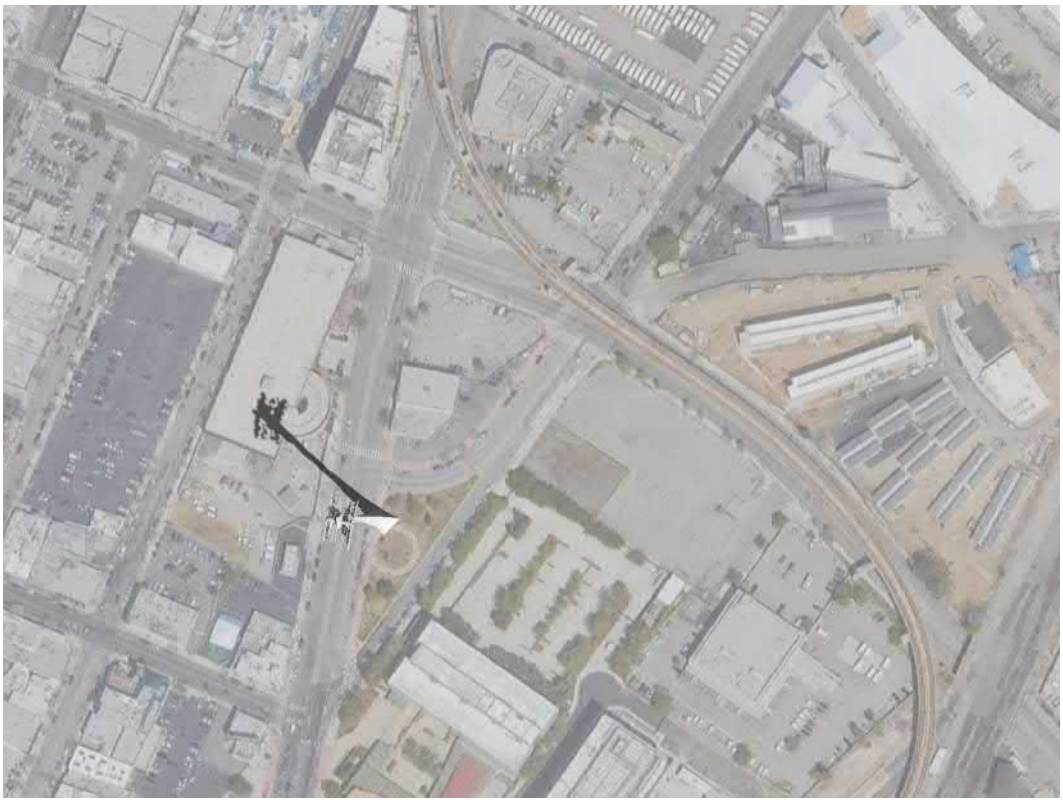
3 pm

AECOM

Figure 175
Alameda Tower (Design Option B) Winter Shadows
3:00pm



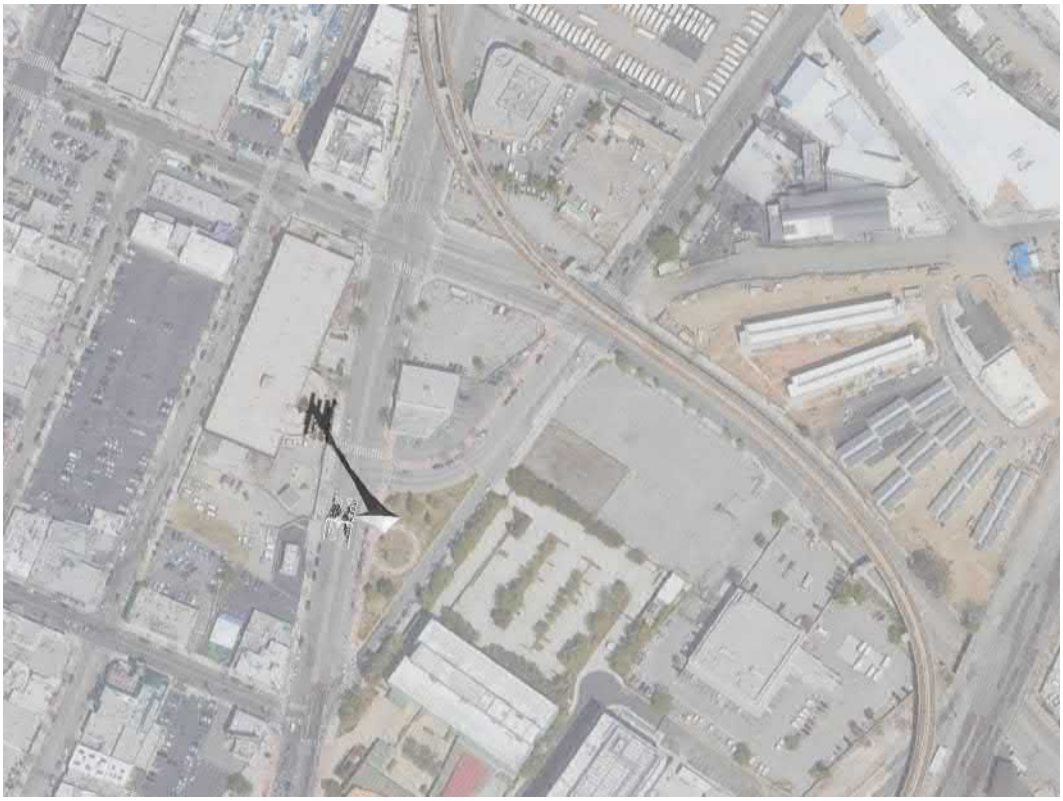
9 am



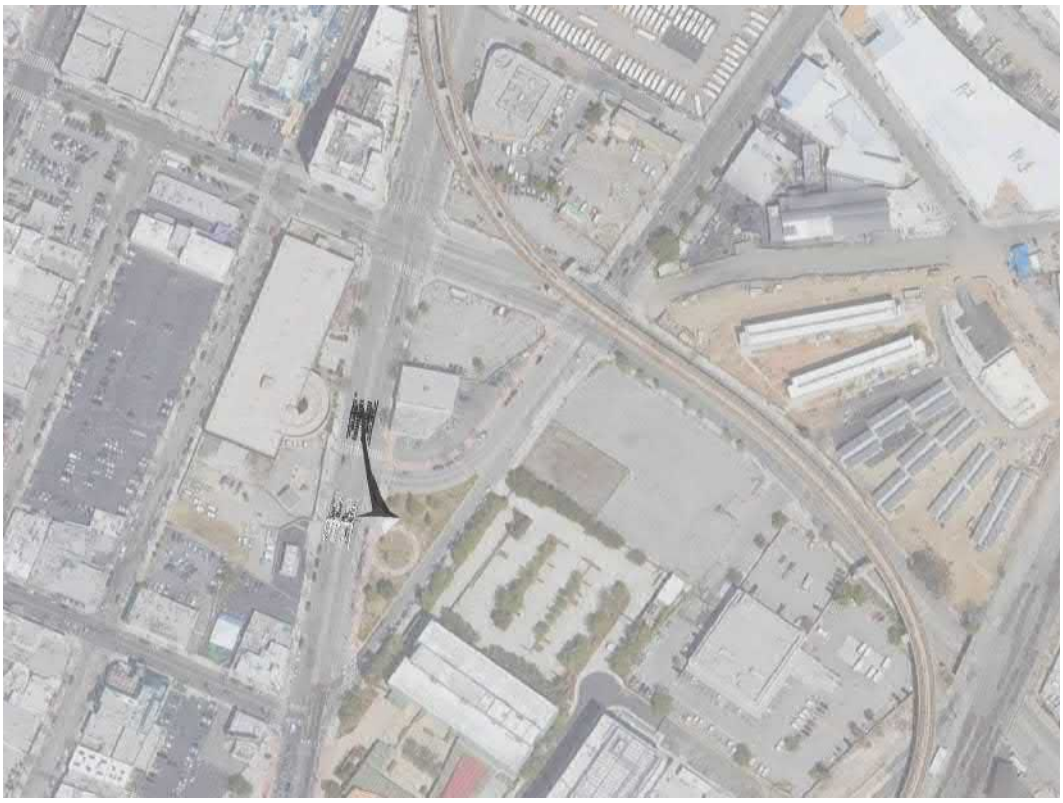
10 am

AECOM

Figure 176
Alameda Tower (Design Option B) Spring Shadows
9:00am - 10:00am



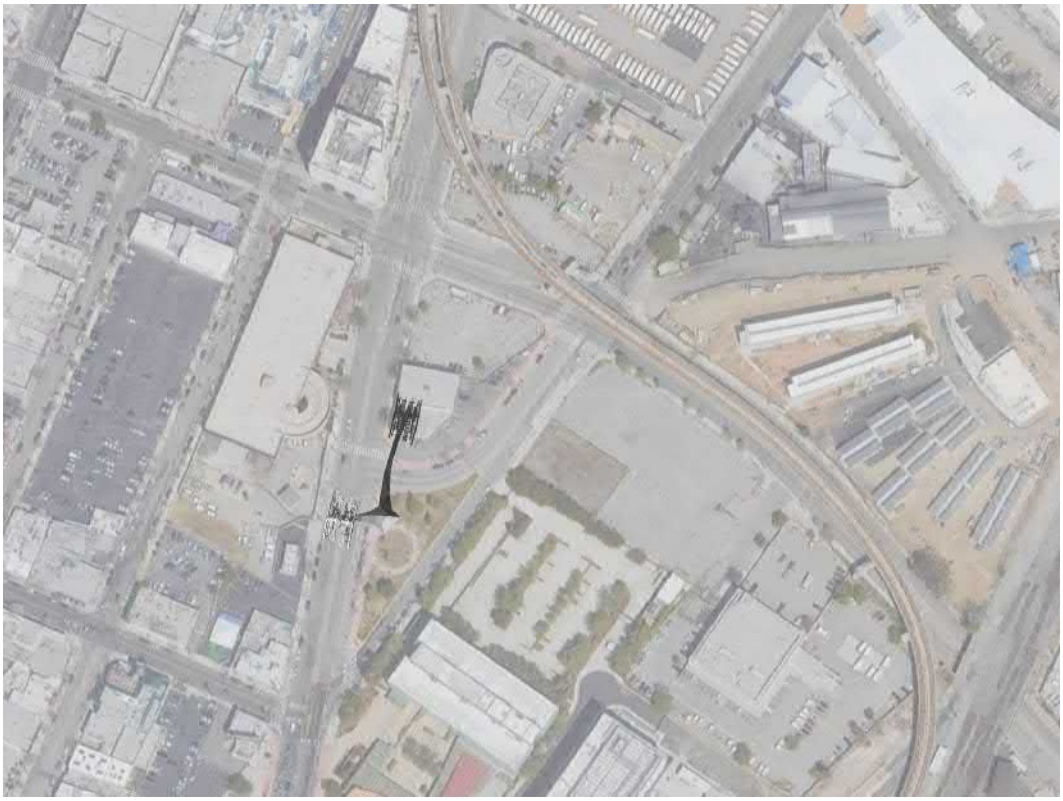
11 am



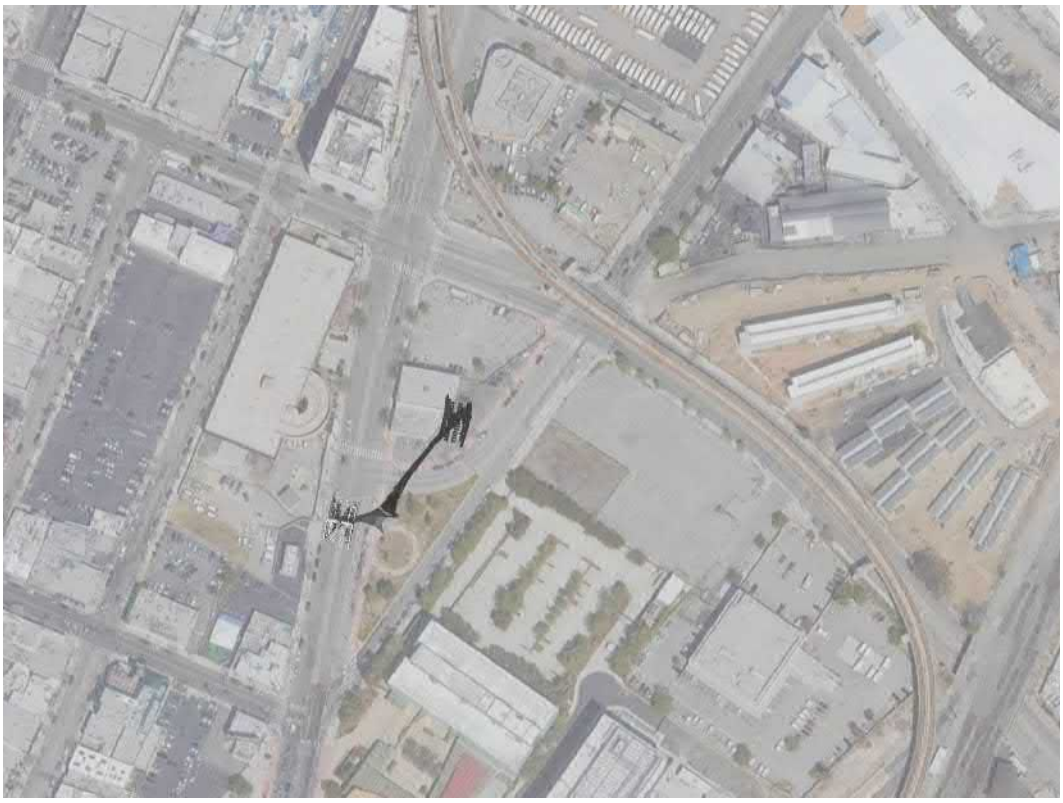
12 pm

AECOM

Figure 177
Alameda Tower (Design Option B) Spring Shadows
11:00am - 12:00pm



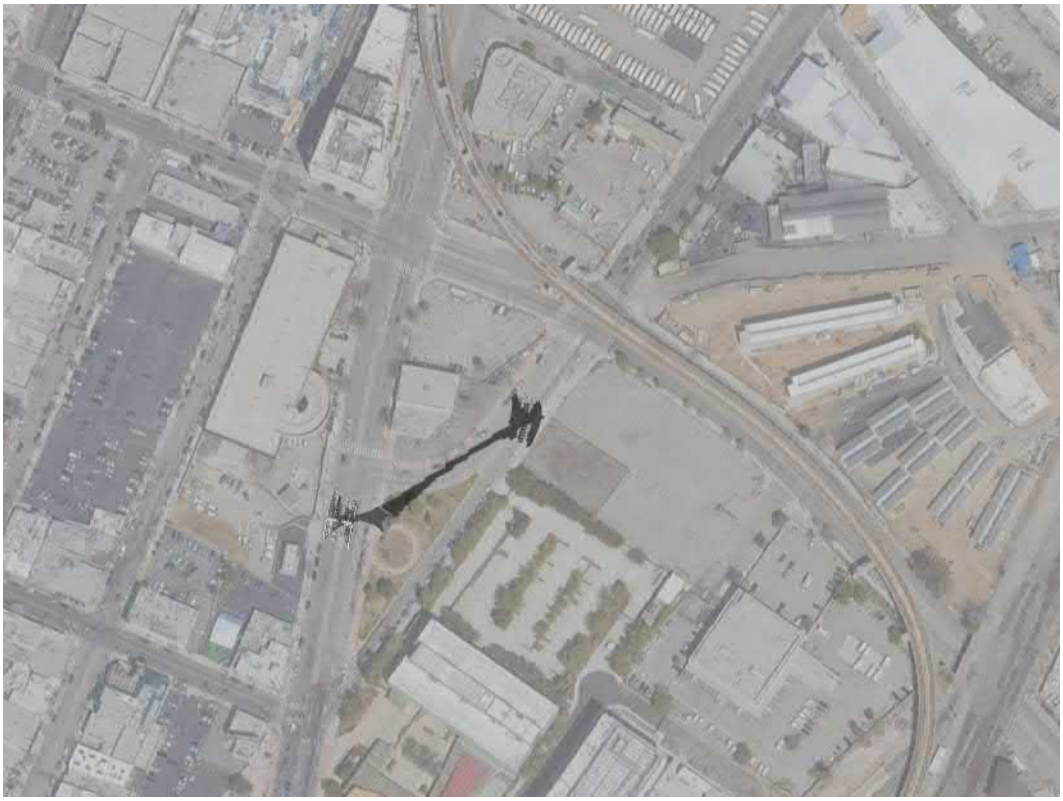
1 pm



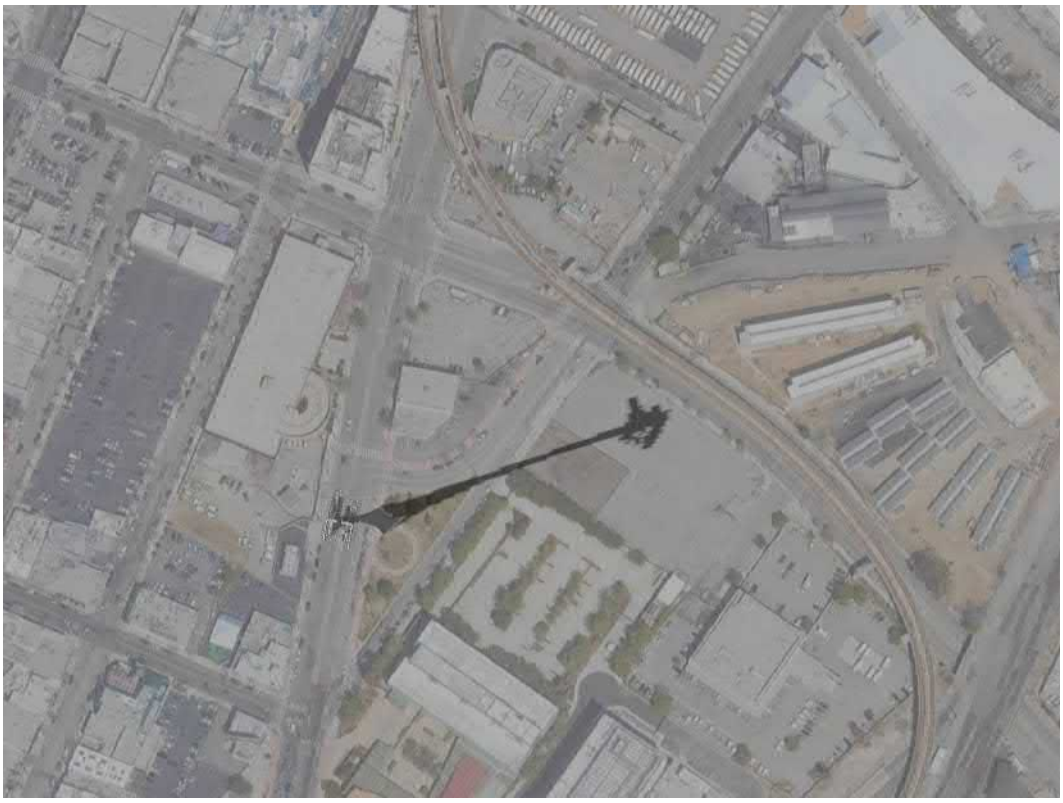
2 pm

AECOM

Figure 178
Alameda Tower (Design Option B) Spring Shadows
1:00pm - 2:00pm



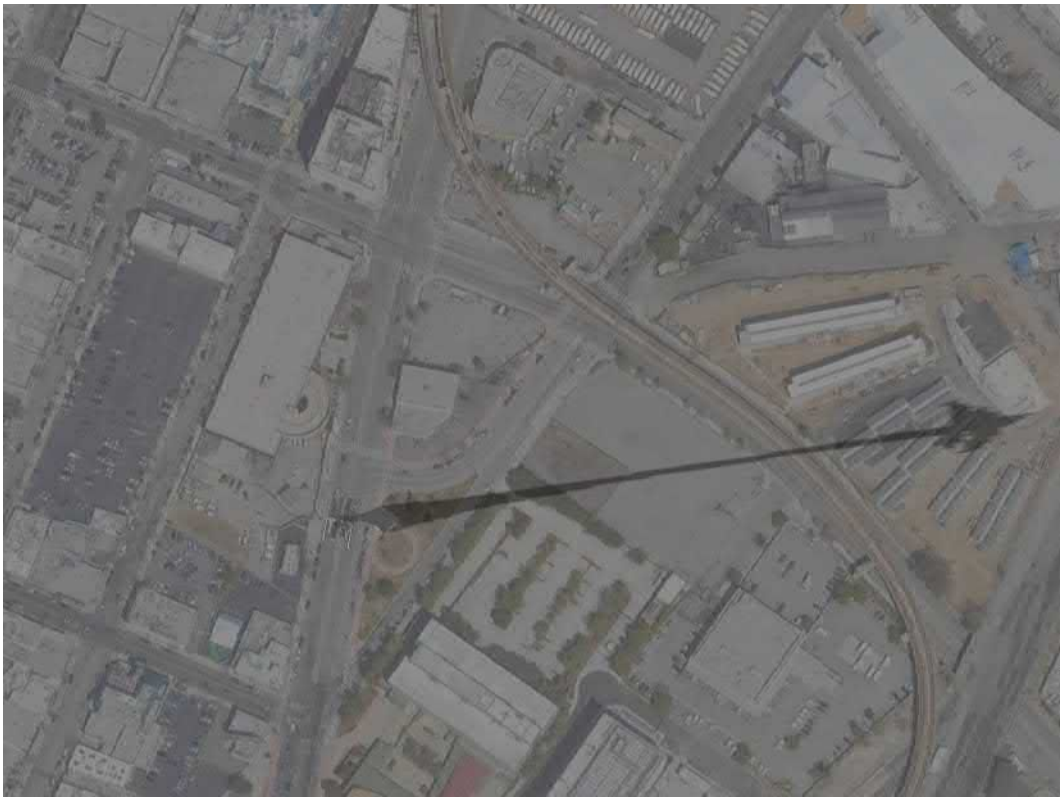
3 pm



4 pm

AECOM

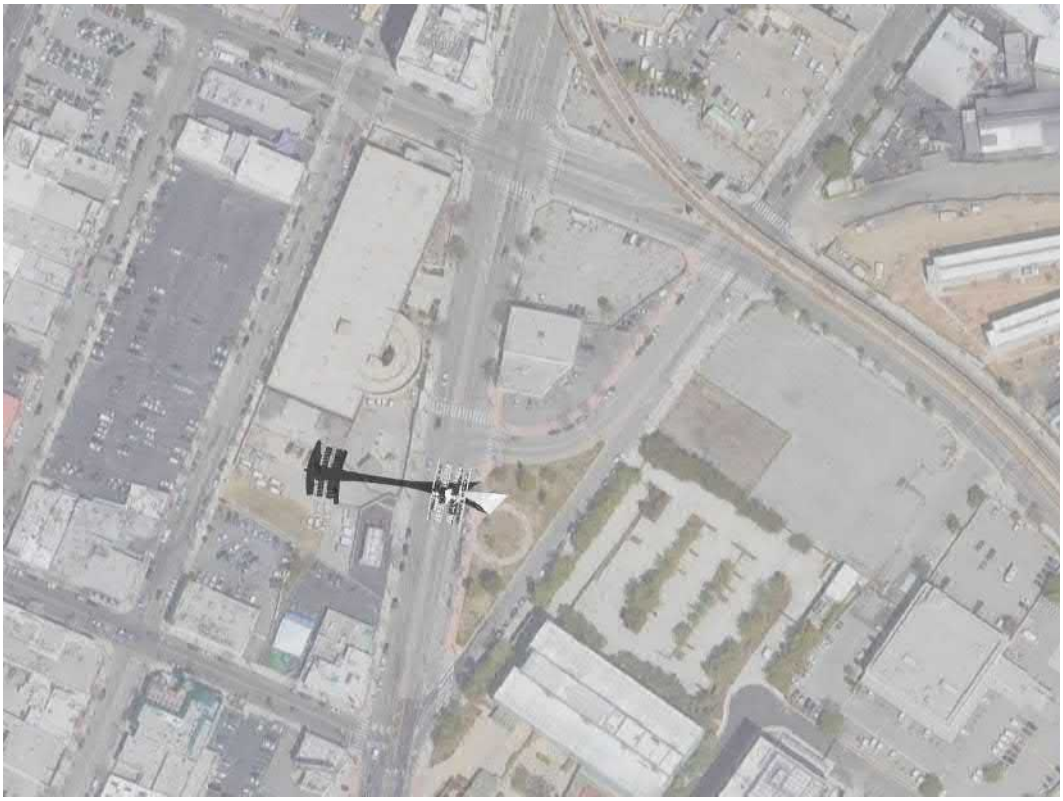
Figure 179
Alameda Tower (Design Option B) Spring Shadows
3:00pm - 4:00pm



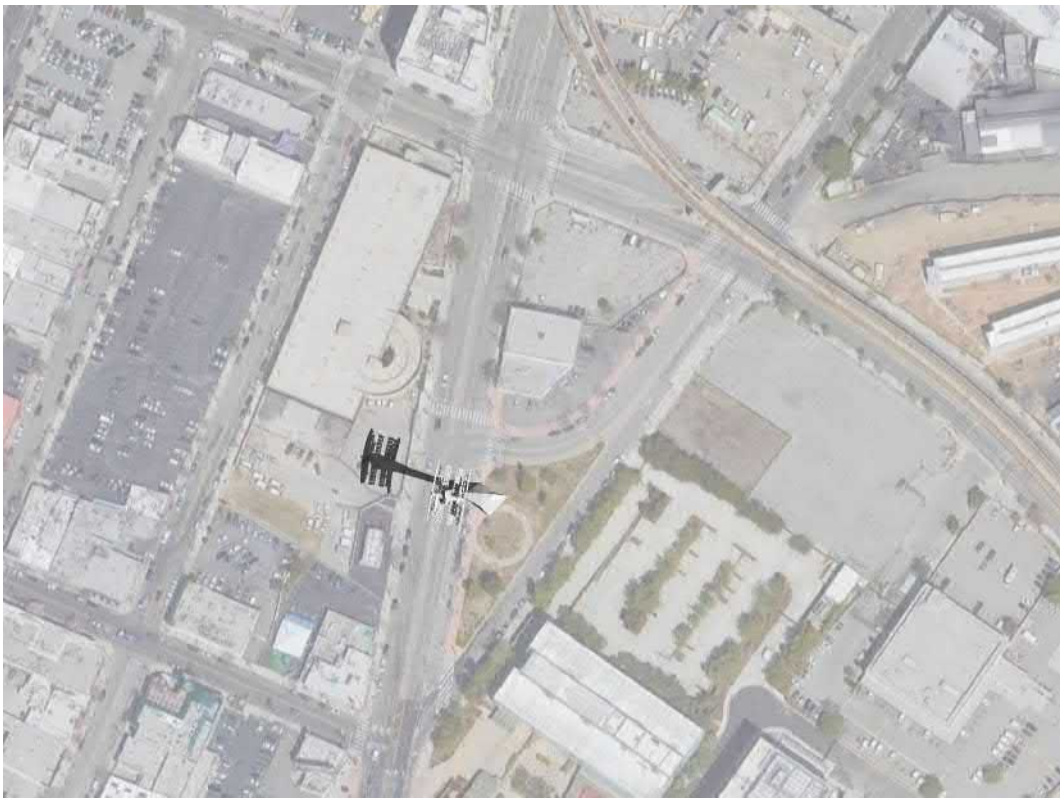
5 pm

AECOM

Figure 180
Alameda Tower (Design Option B) Spring Shadows
5:00pm



9 am



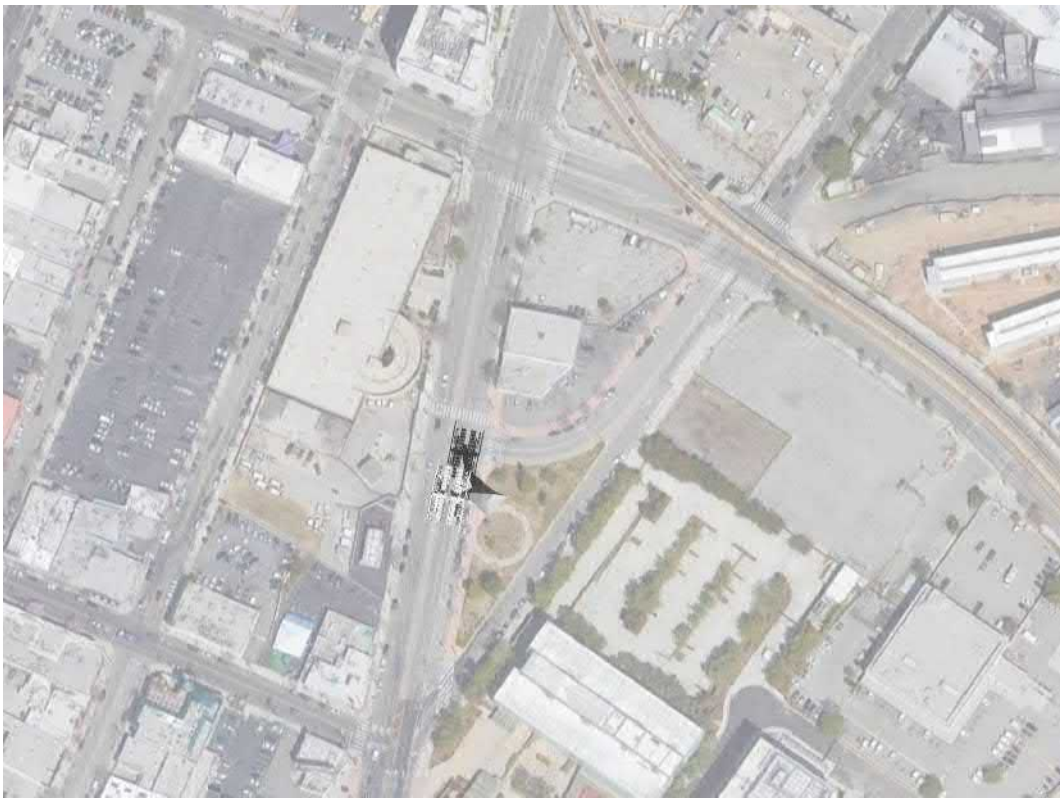
10 am

AECOM

Figure 181
Alameda Tower (Design Option B) Summer Shadows
9:00am - 10:00am



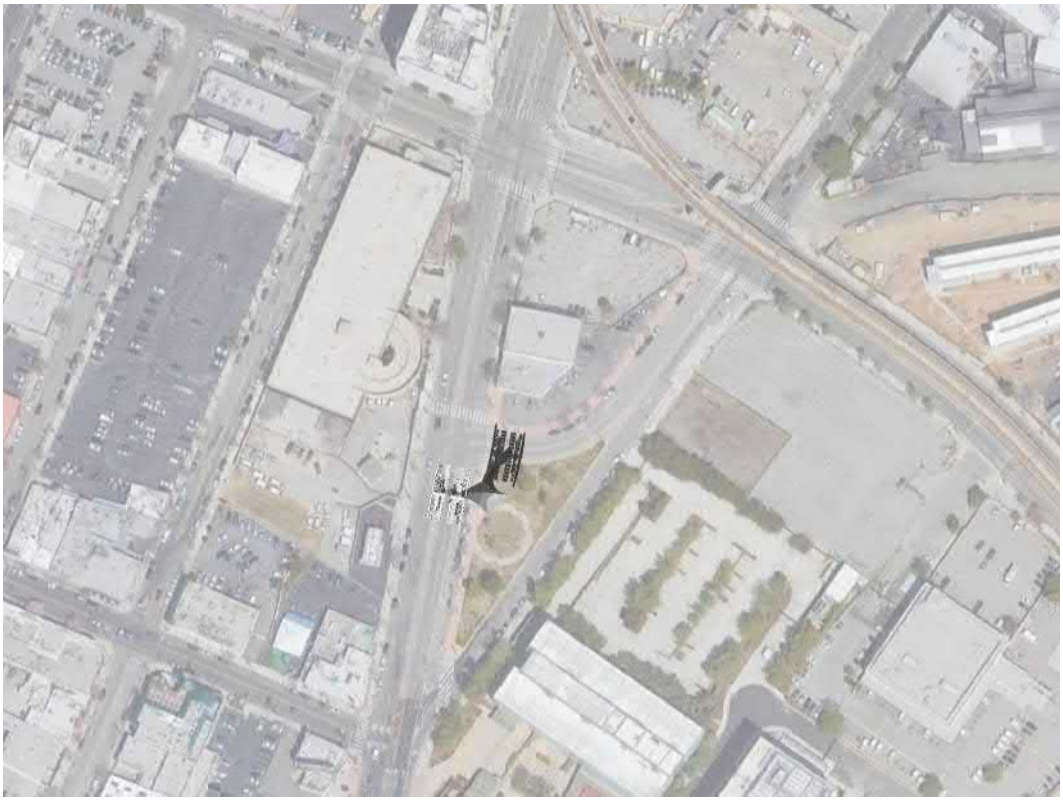
11 am



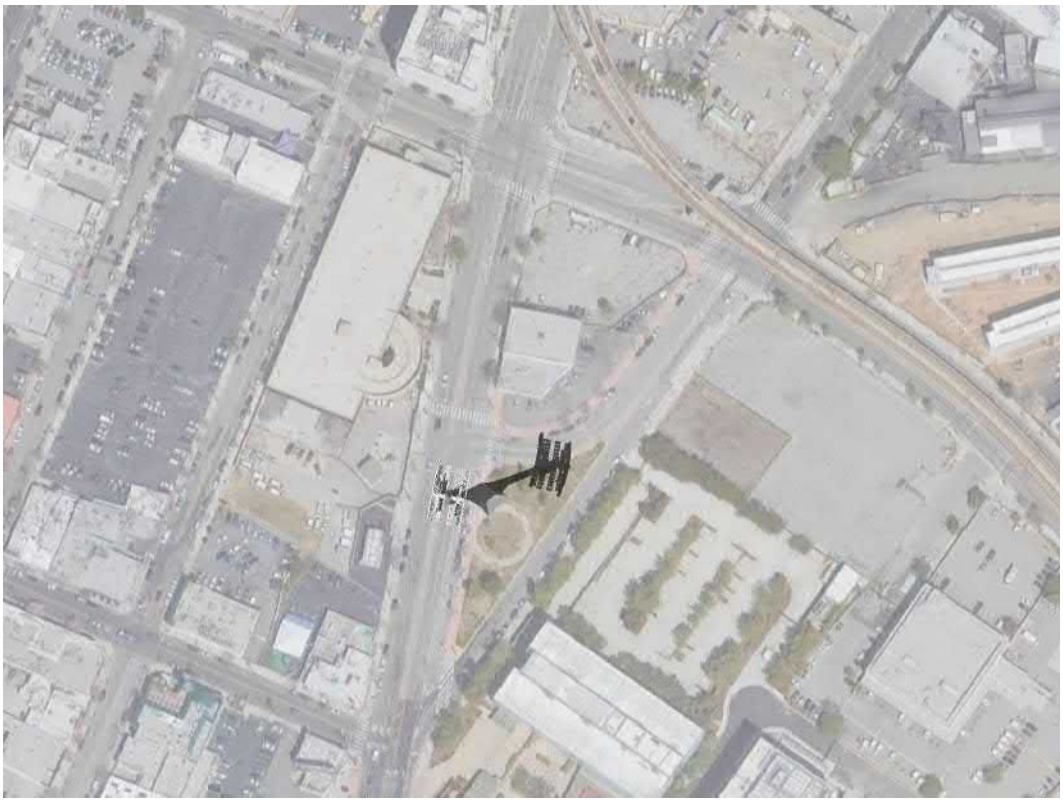
12 pm

AECOM

Figure 182
Alameda Tower (Design Option B) Summer Shadows
11:00am - 12:00pm



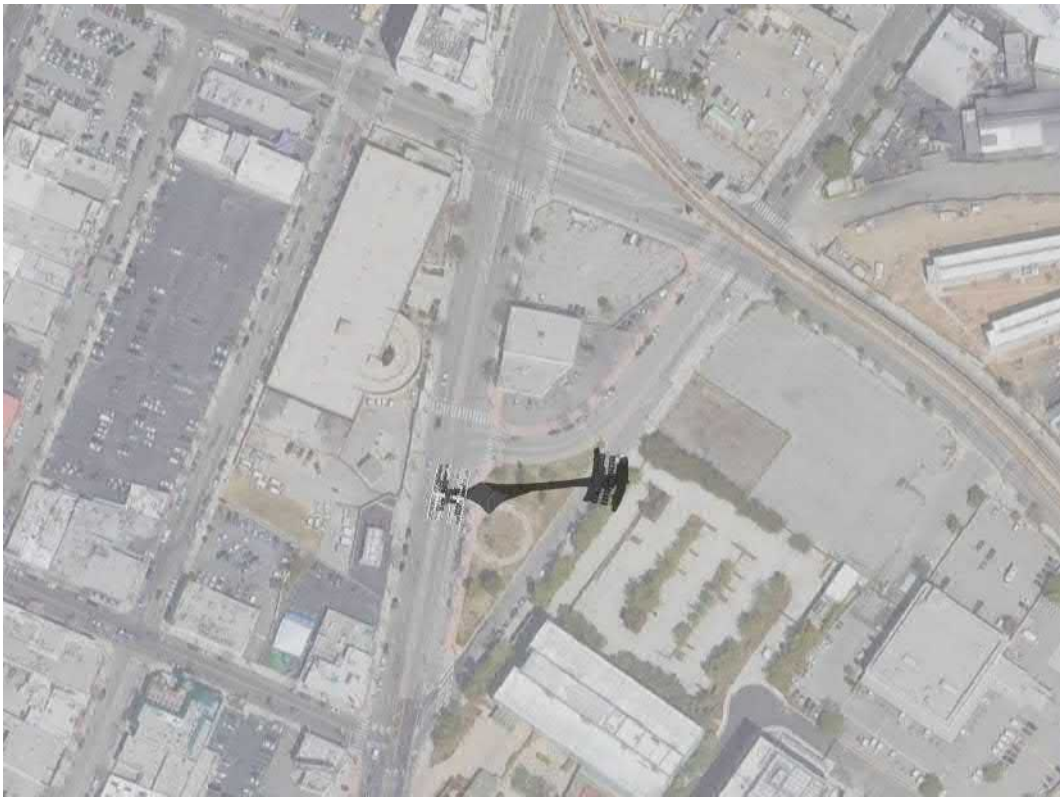
1 pm



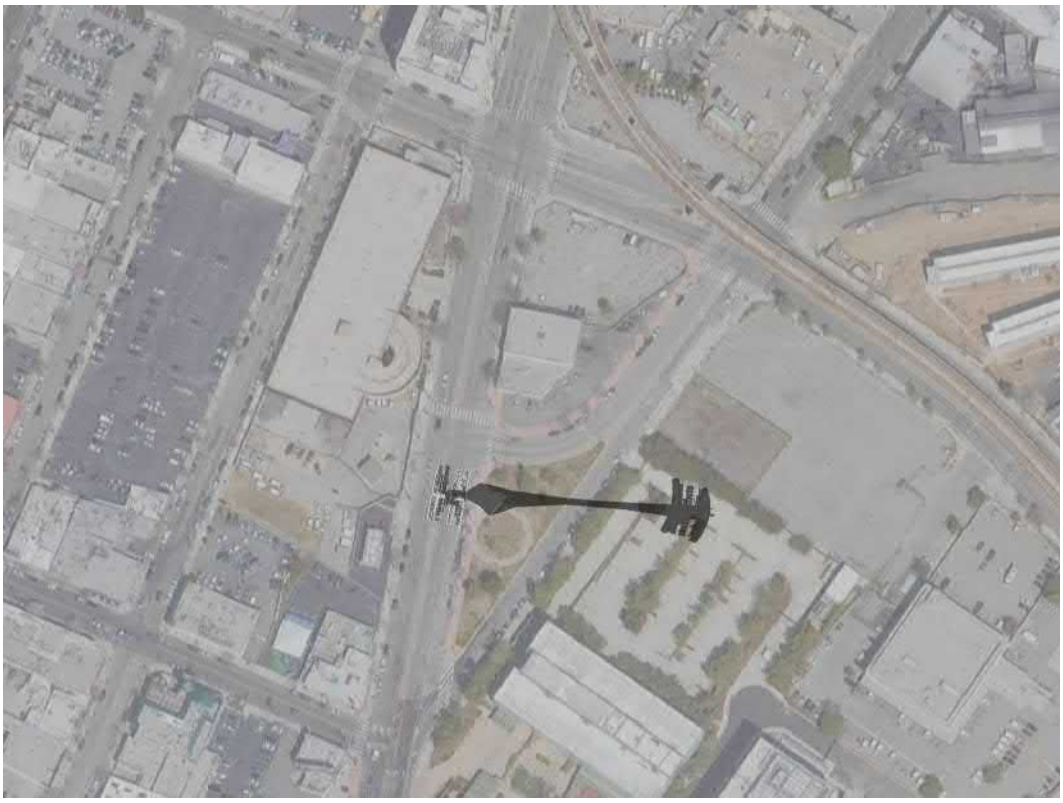
2 pm

AECOM

Figure 183
Alameda Tower (Design Option B) Summer Shadows
1:00pm - 2:00pm



3 pm



4 pm

AECOM

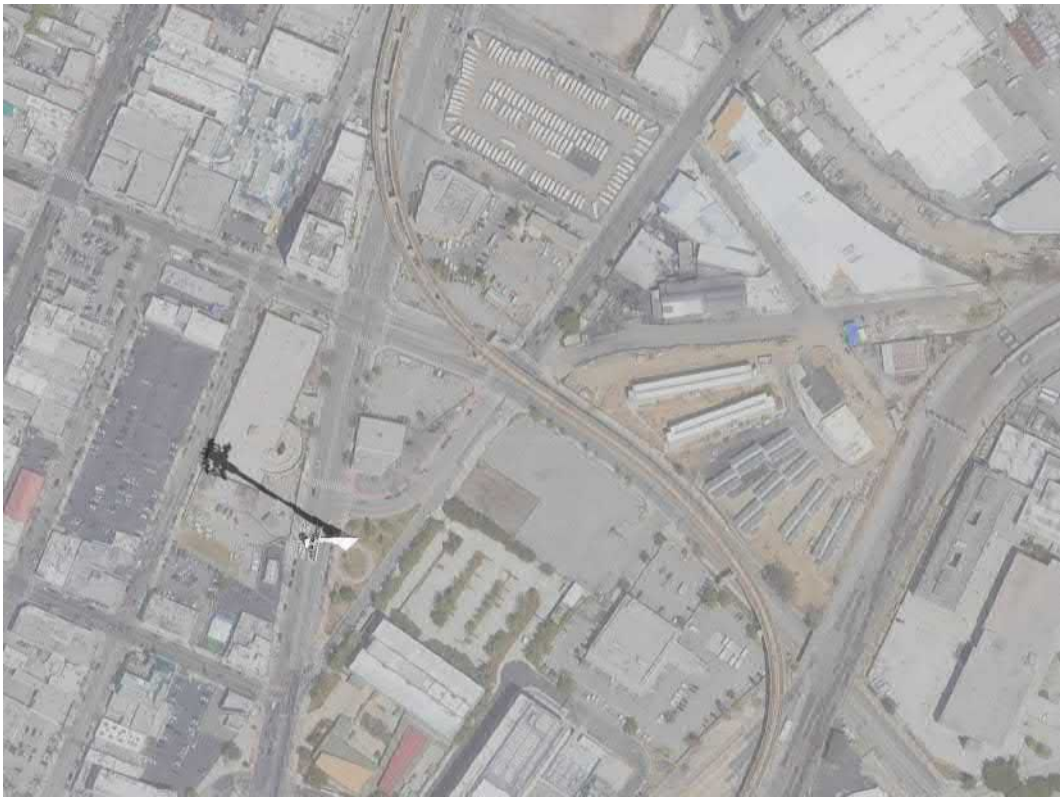
Figure 184
Alameda Tower (Design Option B) Summer Shadows
3:00pm - 4:00pm



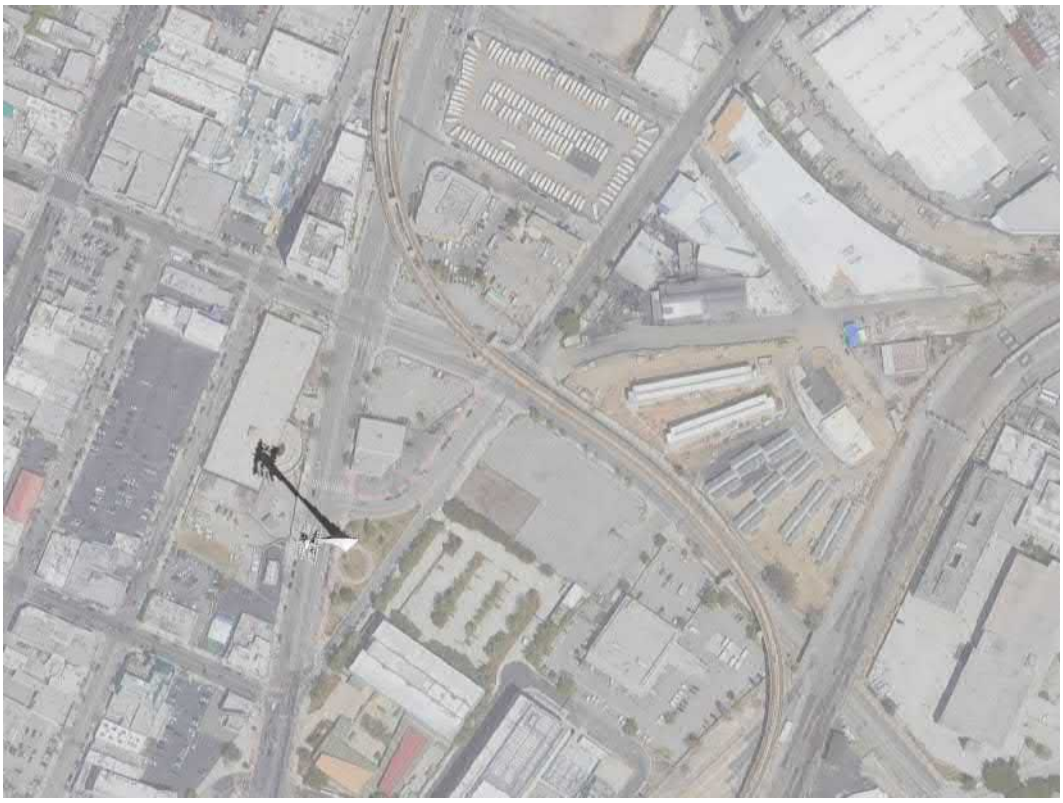
5 pm

AECOM

Figure 185
Alameda Tower (Design Option B) Summer Shadows
5:00pm



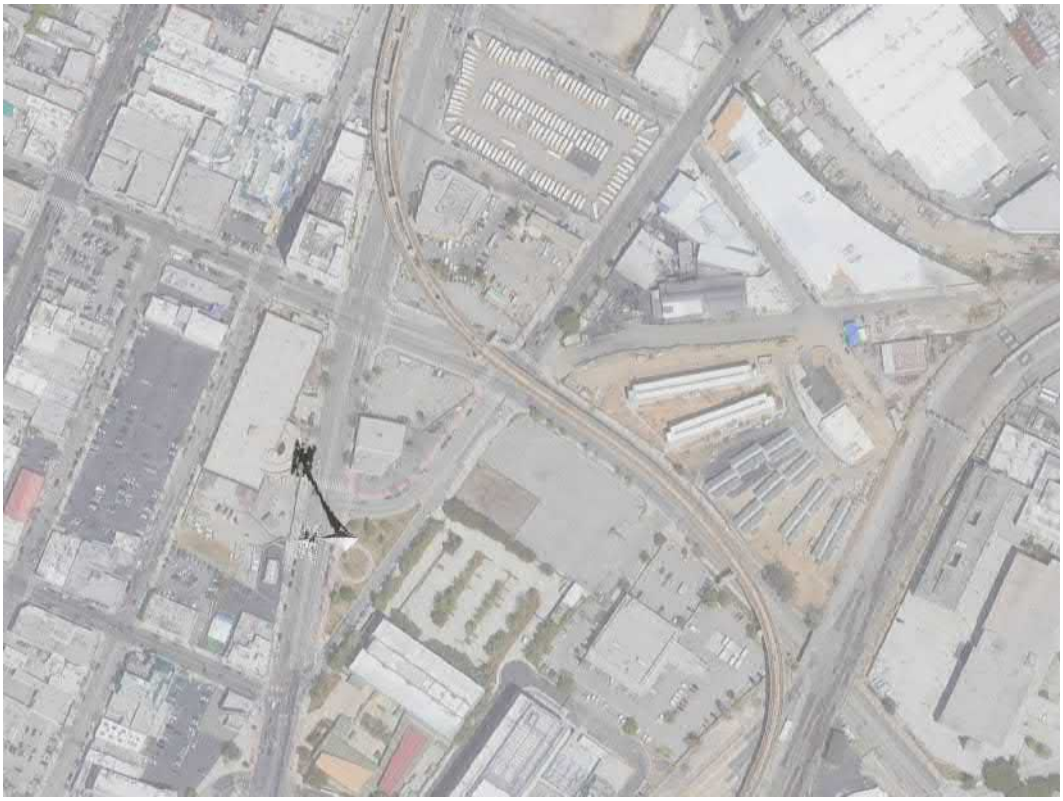
9 am



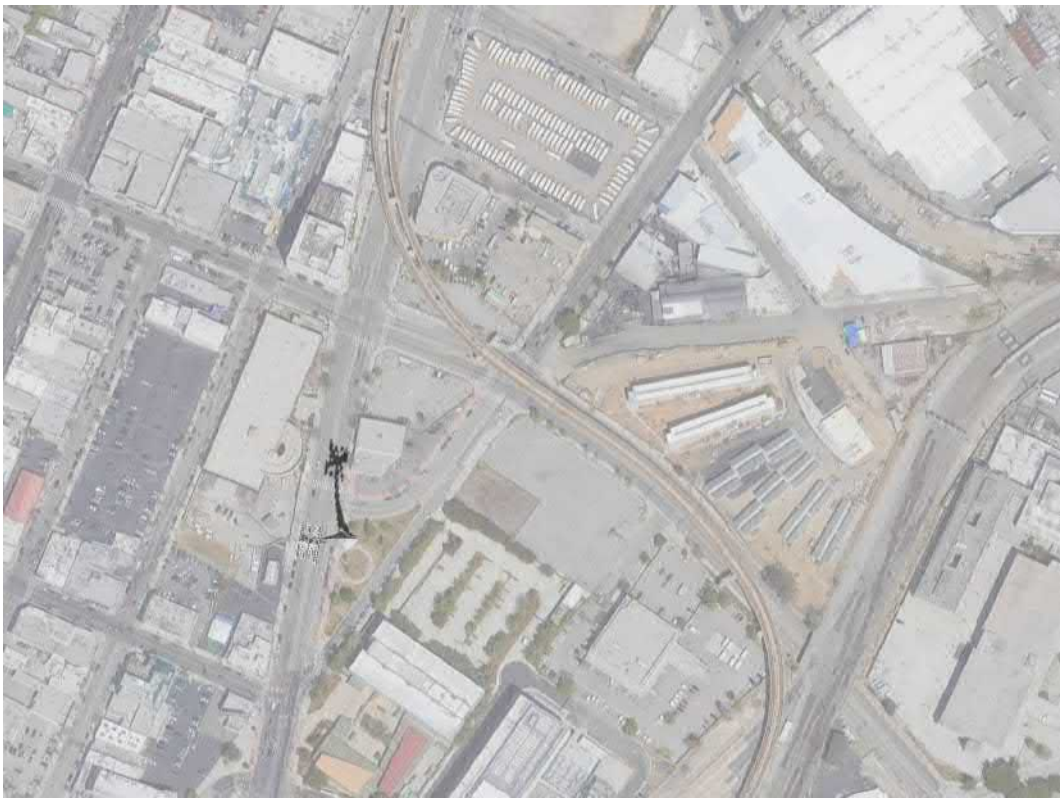
10 am

AECOM

Figure 186
Alameda Tower (Design Option B) Fall Shadows
9:00am - 10:00am



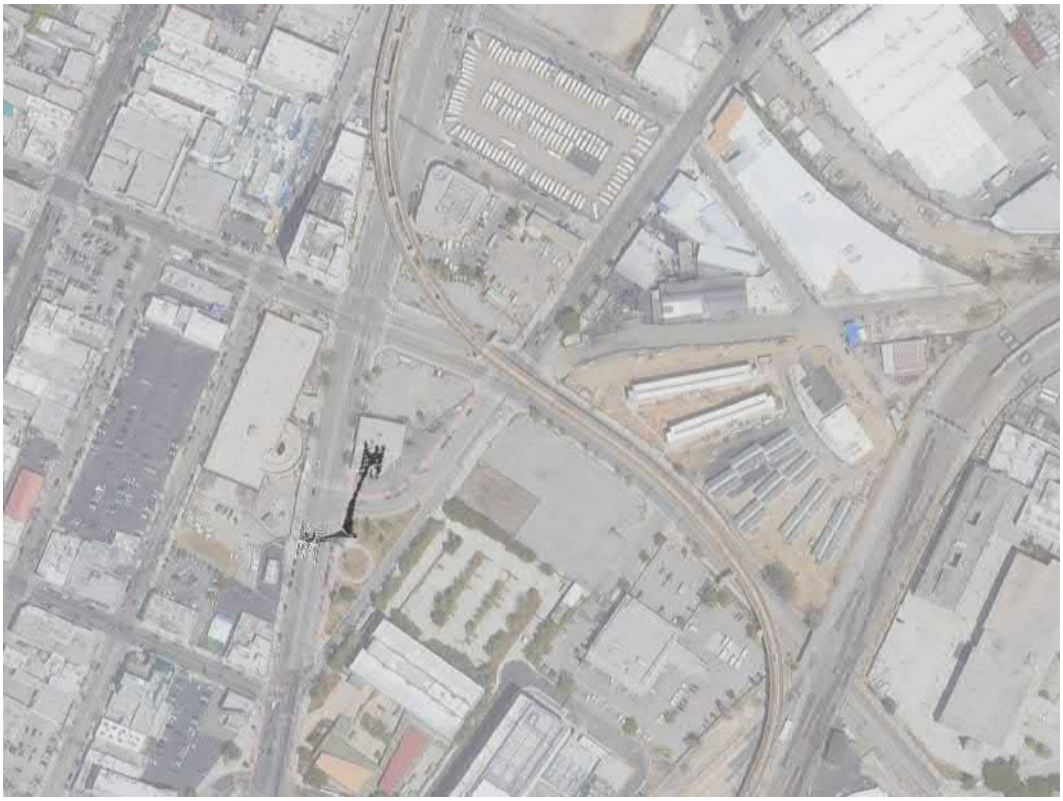
11 am



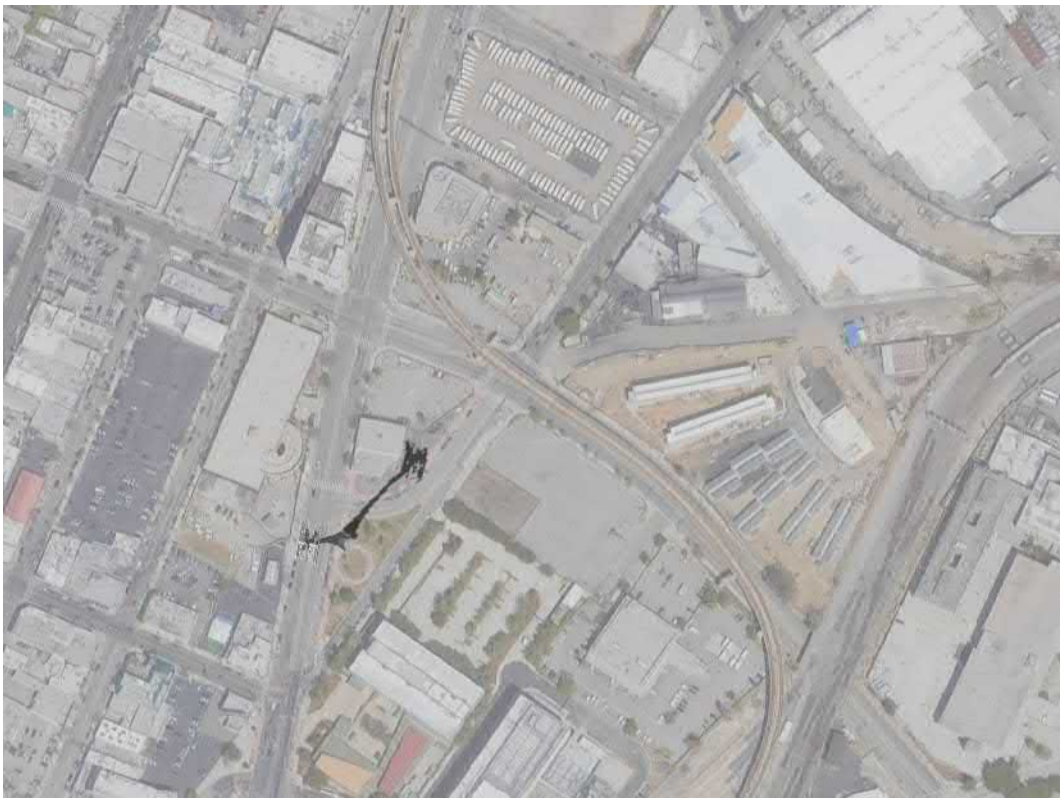
12 pm

AECOM

Figure 187
Alameda Tower (Design Option B) Fall Shadows
11:00am - 12:00pm



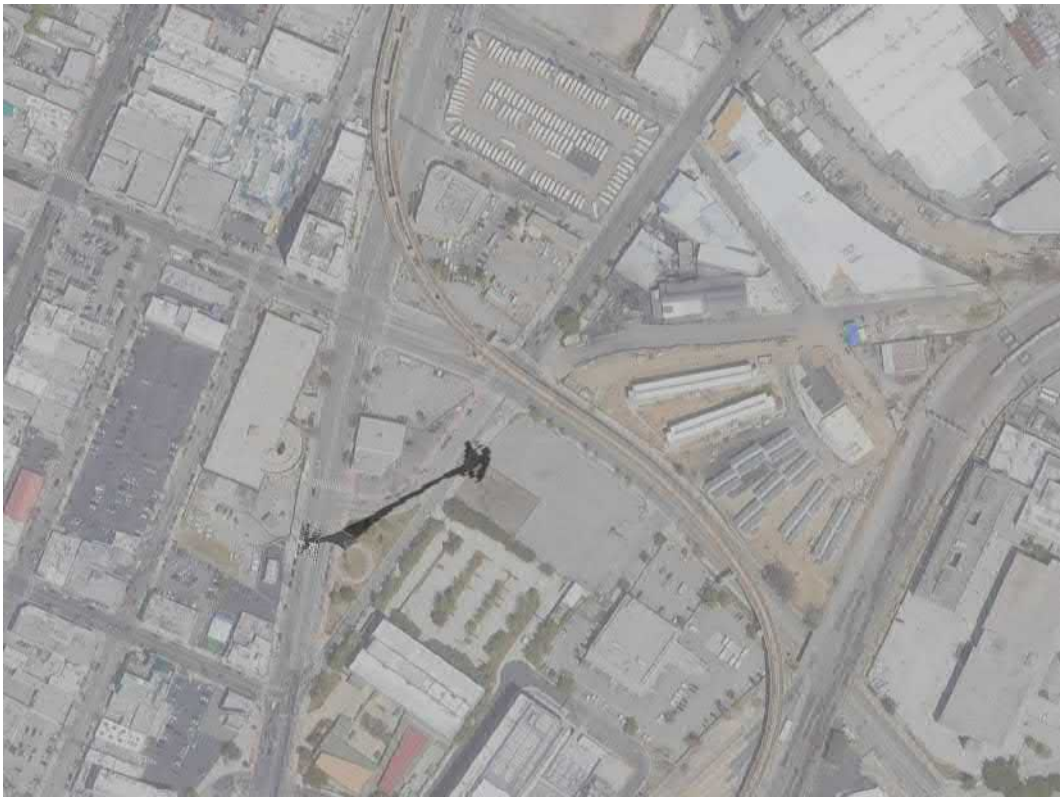
1 pm



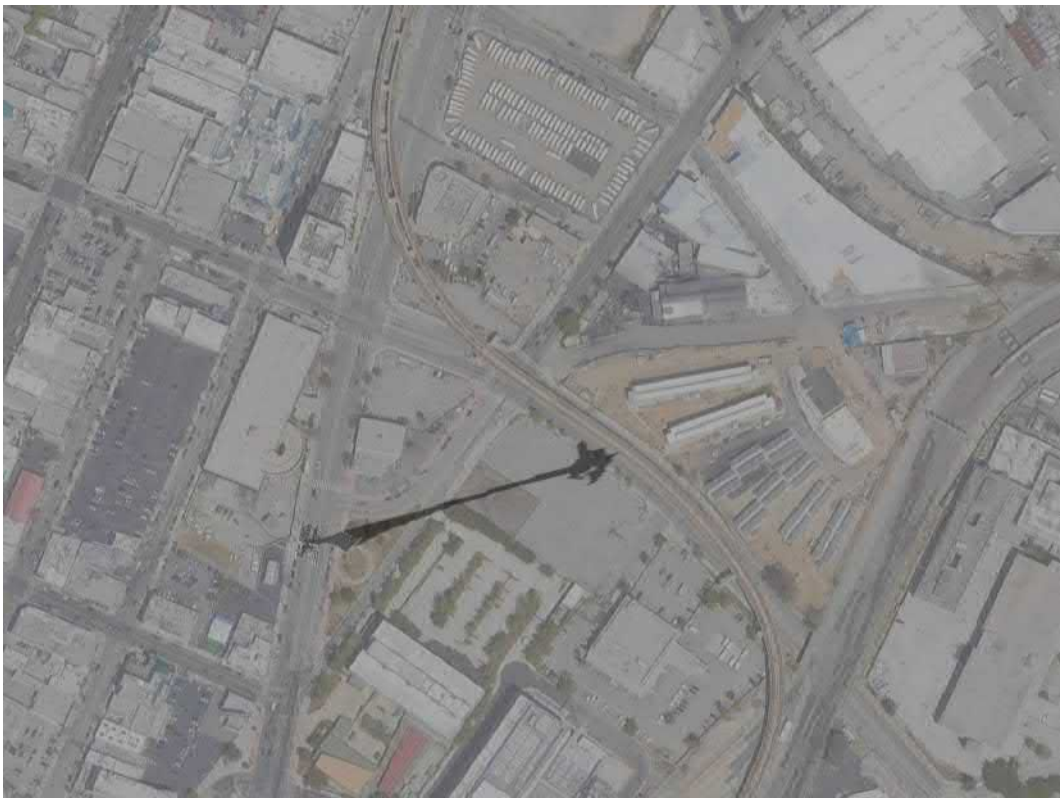
2 pm

AECOM

Figure 188
Alameda Tower (Design Option B) Fall Shadows
1:00pm - 2:00pm



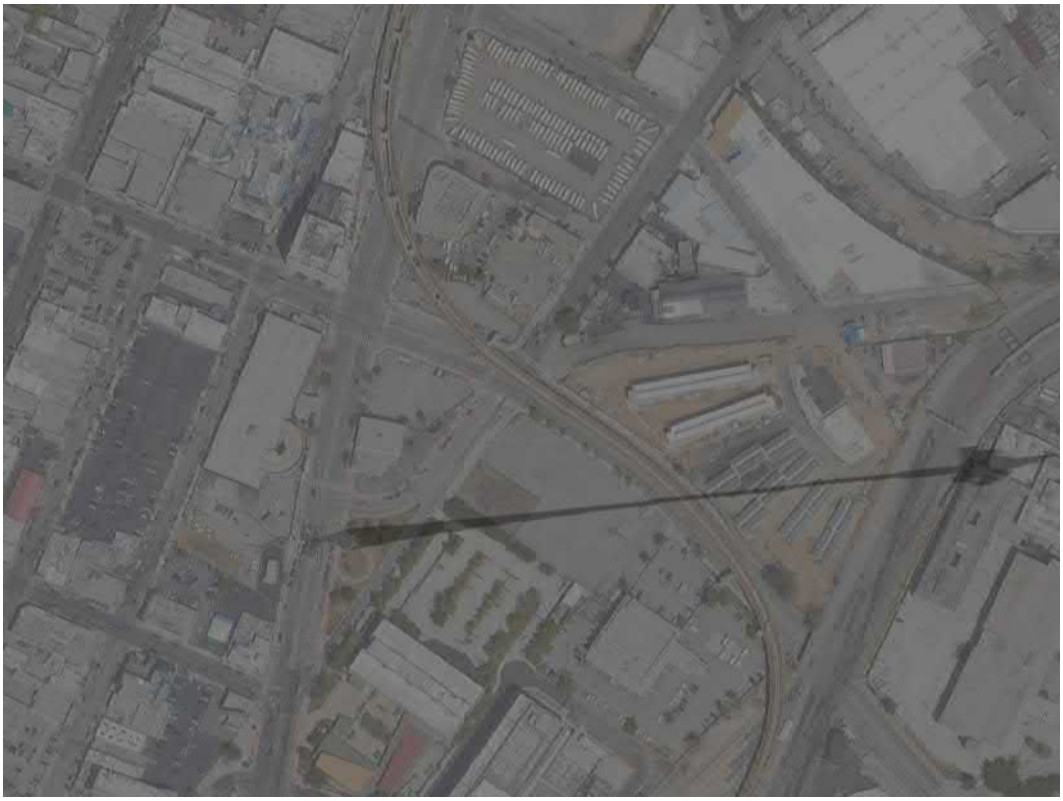
3 pm



4 pm

AECOM

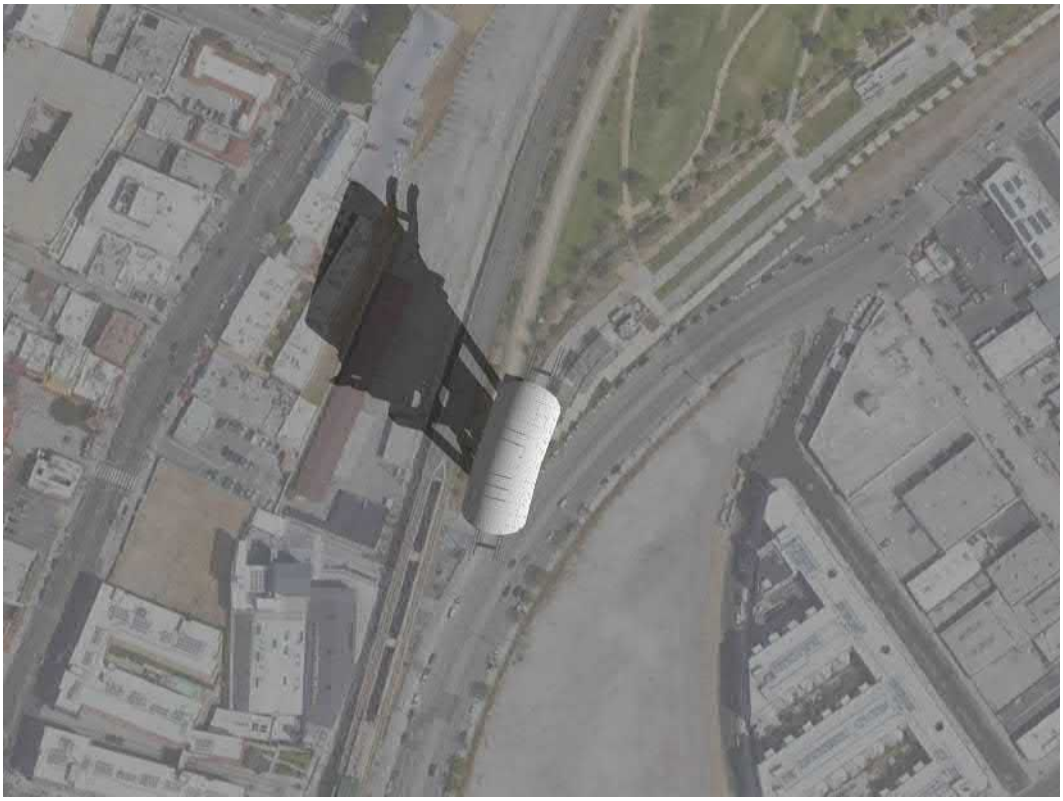
Figure 189
Alameda Tower (Design Option B) Fall Shadows
3:00pm - 4:00pm



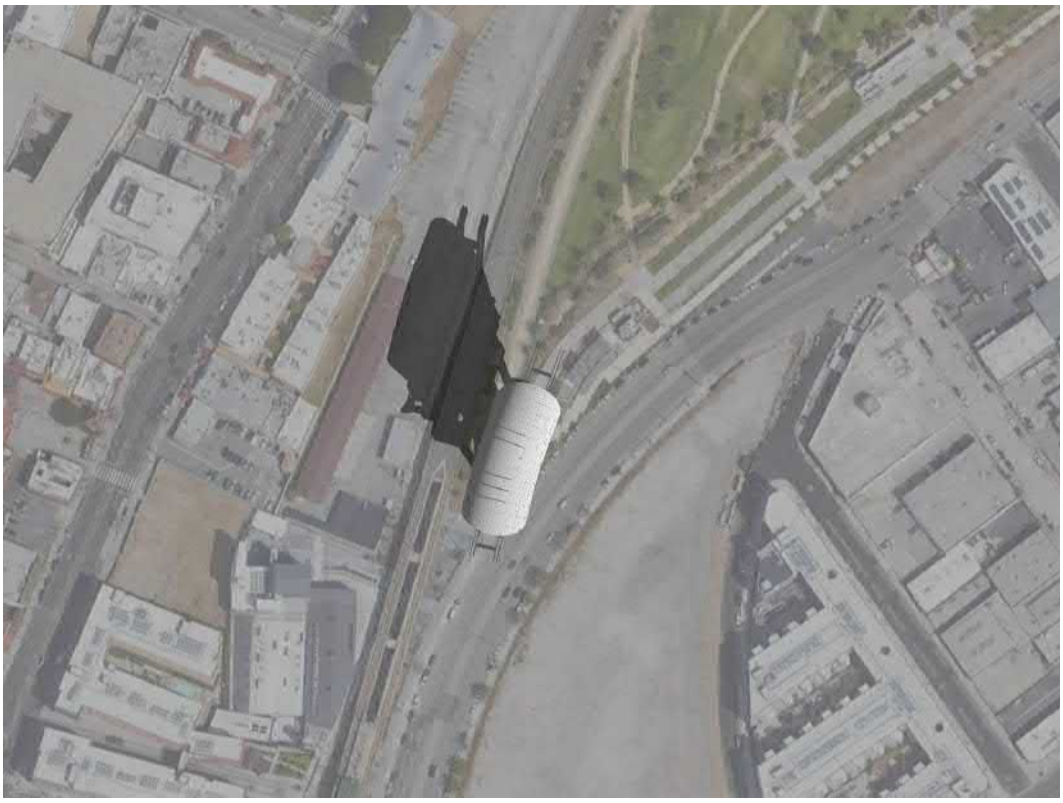
5 pm

AECOM

Figure 190
Alameda Tower (Design Option B) Fall Shadows
5:00pm

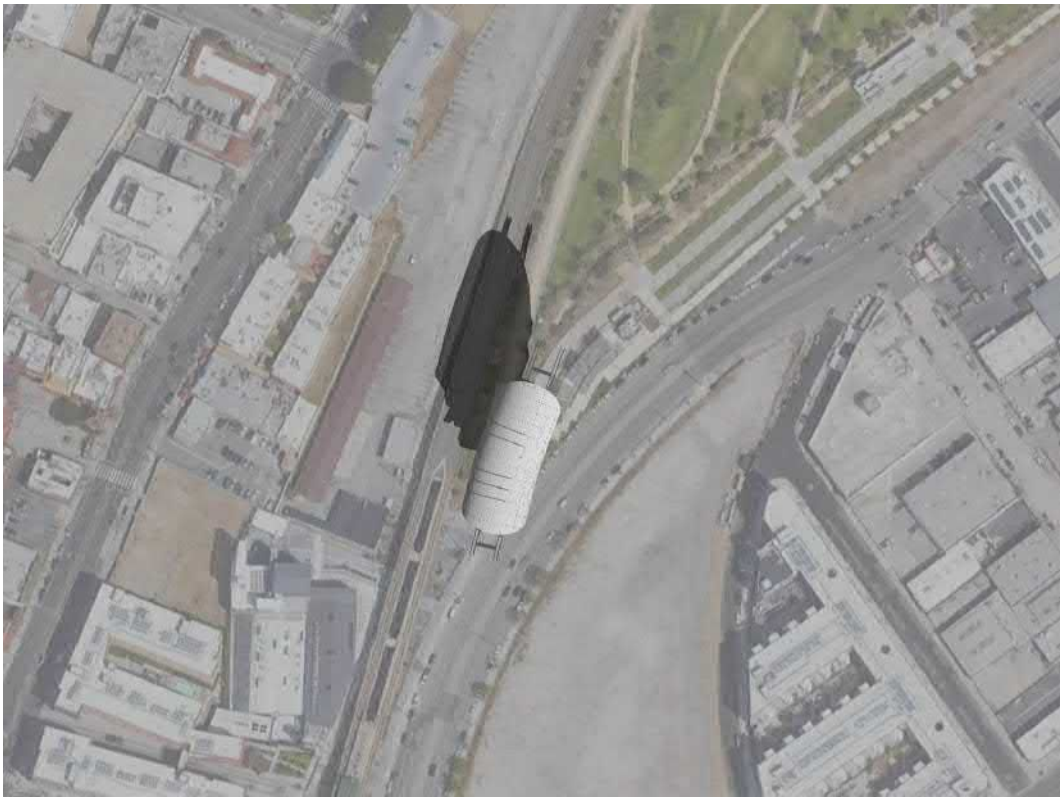


9 am

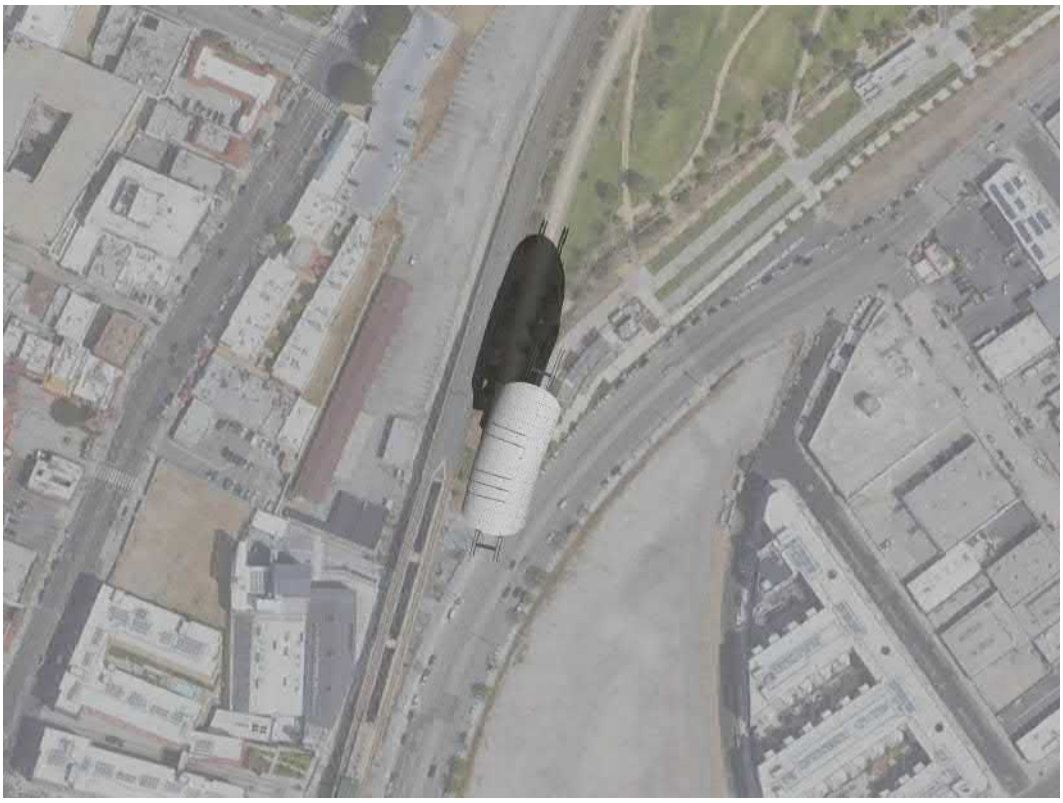


10 am

Figure 191
Chinatown/State Park Station (Design Option C) Winter Shadows
9:00am - 10:00am

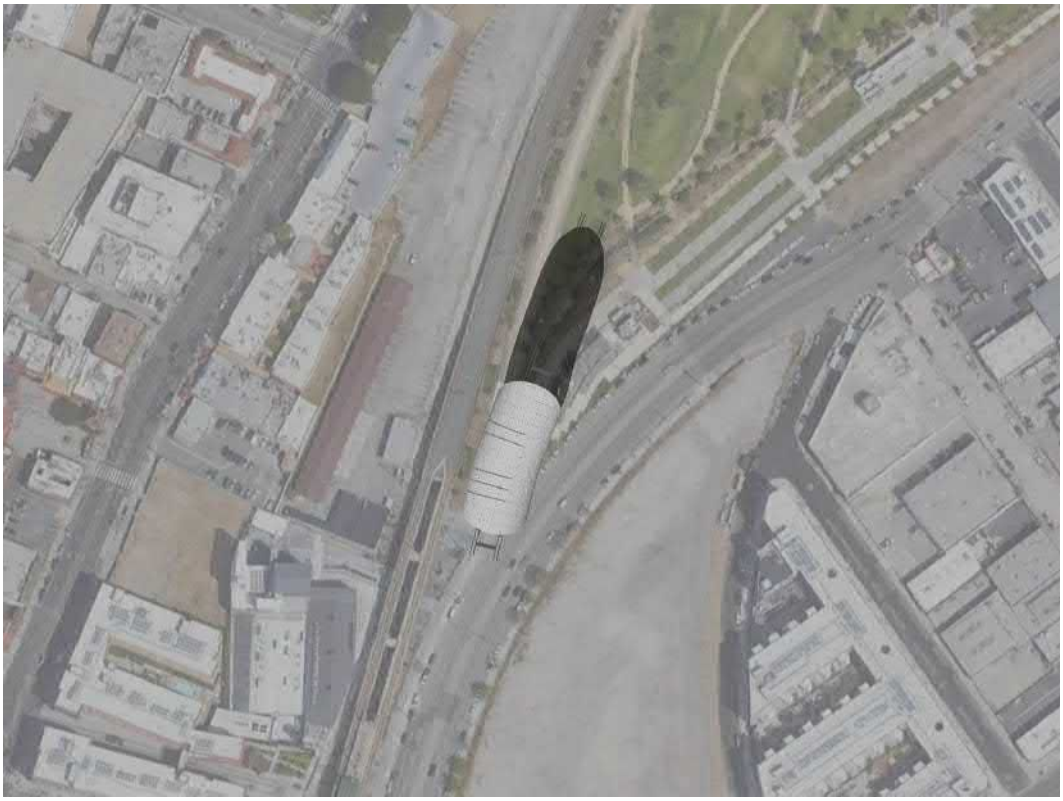


11 am

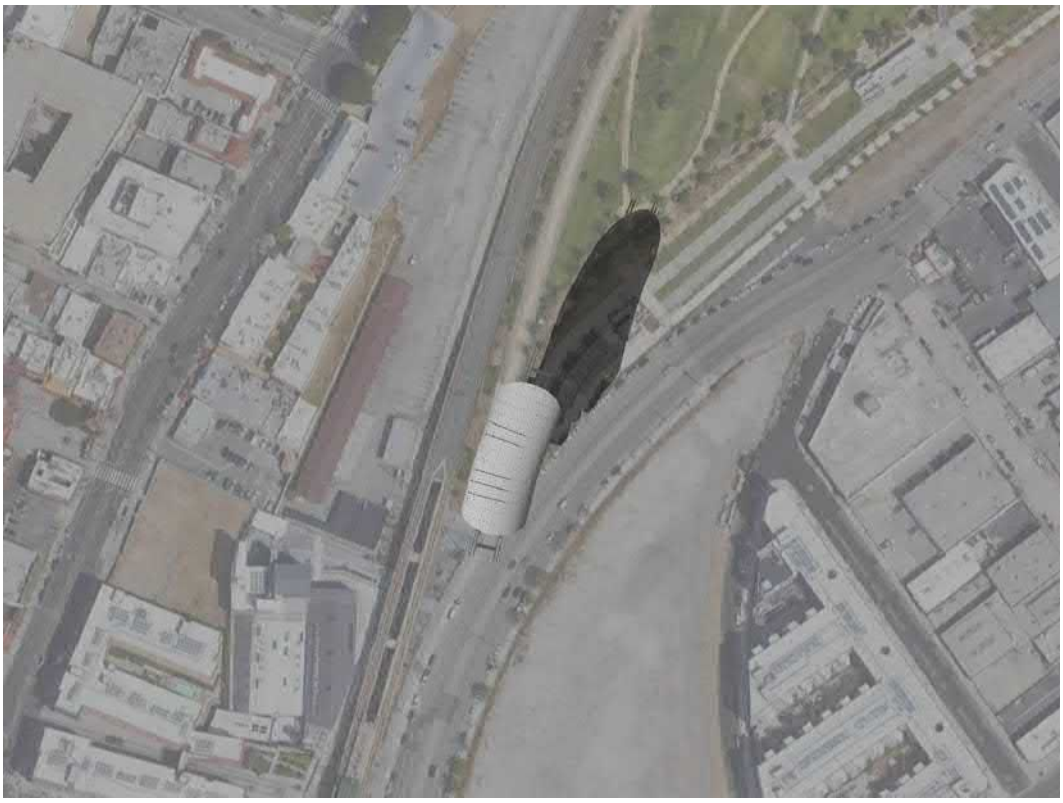


12 pm

Figure 192
Chinatown/State Park Station (Design Option C) Winter Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 193
Chinatown/State Park Station (Design Option C) Winter Shadows
1:00pm - 2:00pm



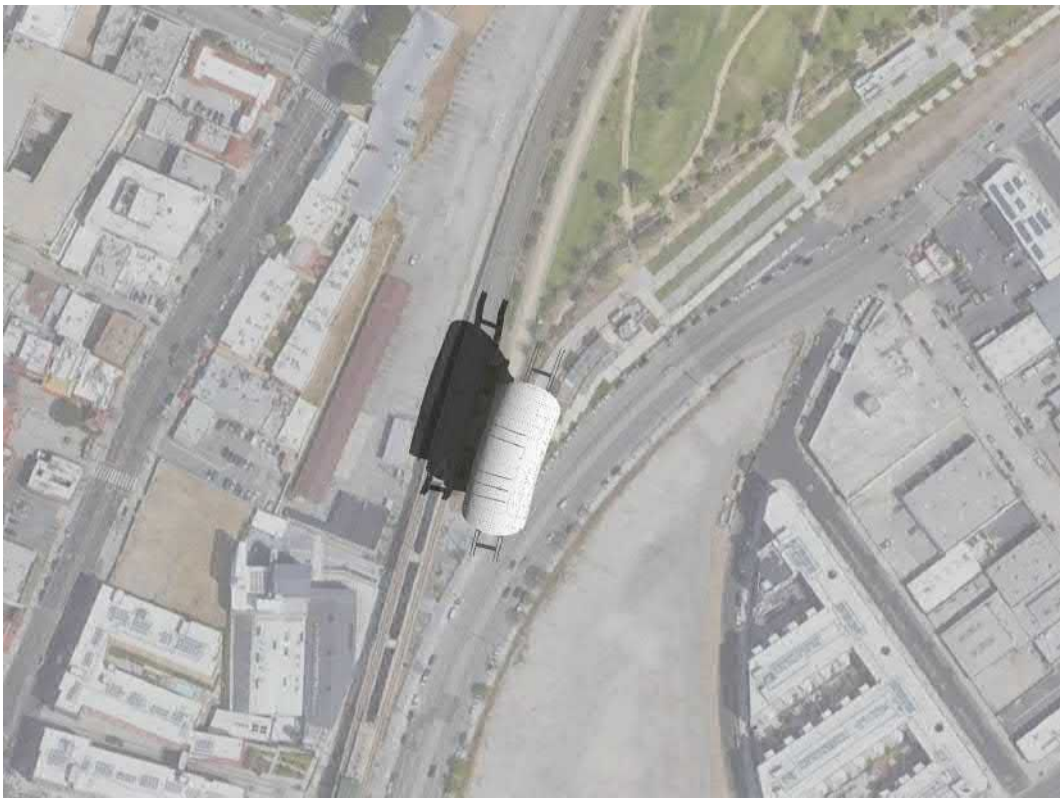
3 pm

AECOM

Figure 194
Chinatown/State Park Station (Design Option C) Winter Shadows
3:00pm



9 am

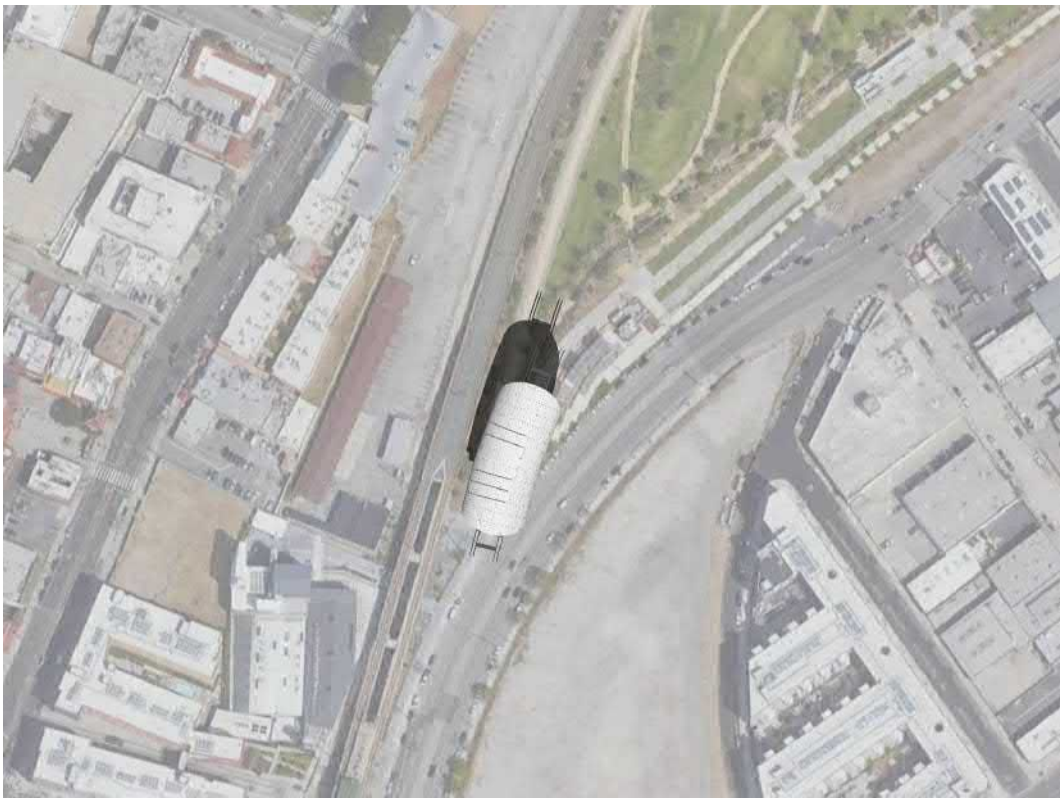


10 am

Figure 195
Chinatown/State Park Station (Design Option C) Spring Shadows
9:00am - 10:00am



11 am



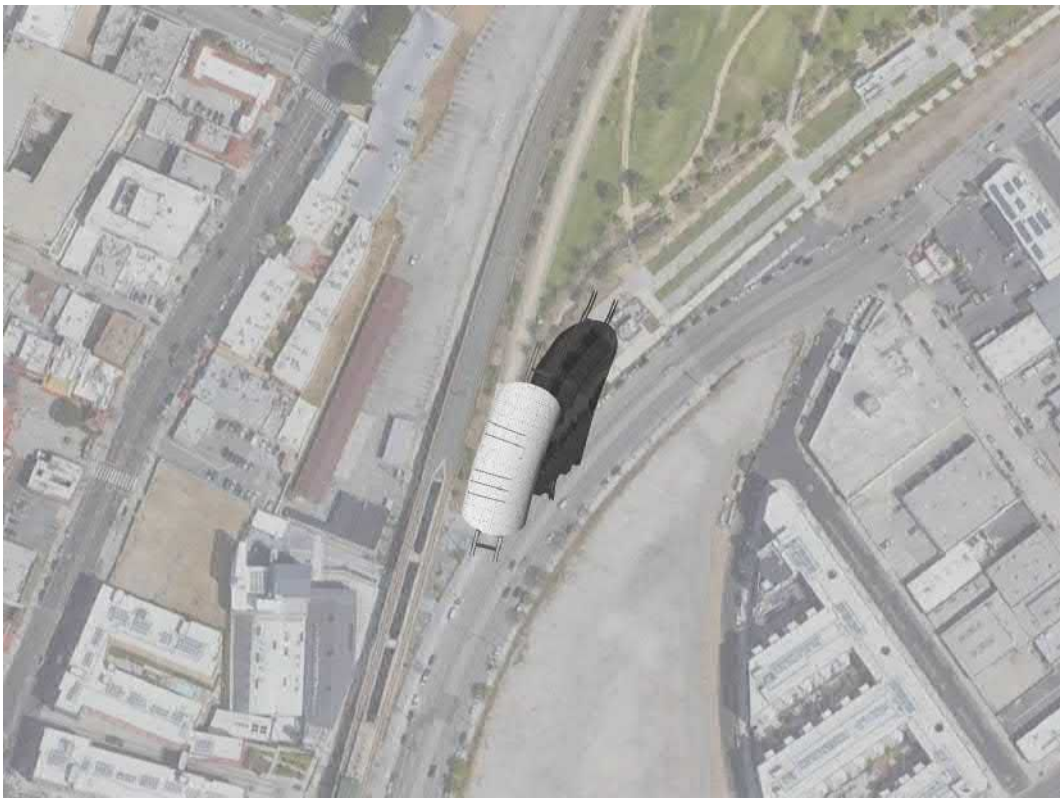
12 pm

AECOM

Figure 196
Chinatown/State Park Station (Design Option C) Spring Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 197
Chinatown/State Park Station (Design Option C) Spring Shadows
1:00pm - 2:00pm



3 pm



4 pm

Figure 198
Chinatown/State Park Station (Design Option C) Spring Shadows
3:00pm - 4:00pm



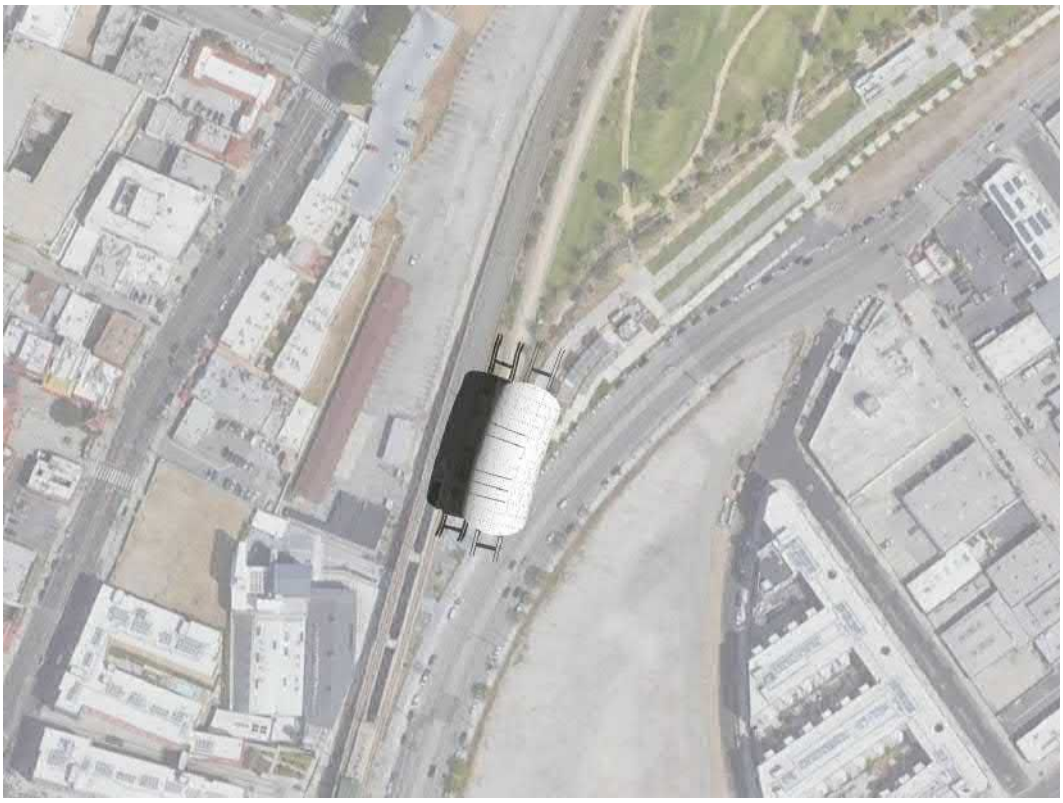
5 pm

AECOM

Figure 199
Chinatown/State Park Station (Design Option C) Spring Shadows
5:00pm



9 am



10 am

Figure 200
Chinatown/State Park Station (Design Option C) Summer Shadows
9:00am - 10:00am



11 am



12 pm

AECOM

Figure 201
Chinatown/State Park Station (Design Option C) Summer Shadows
11:00am - 12:00pm



1 pm



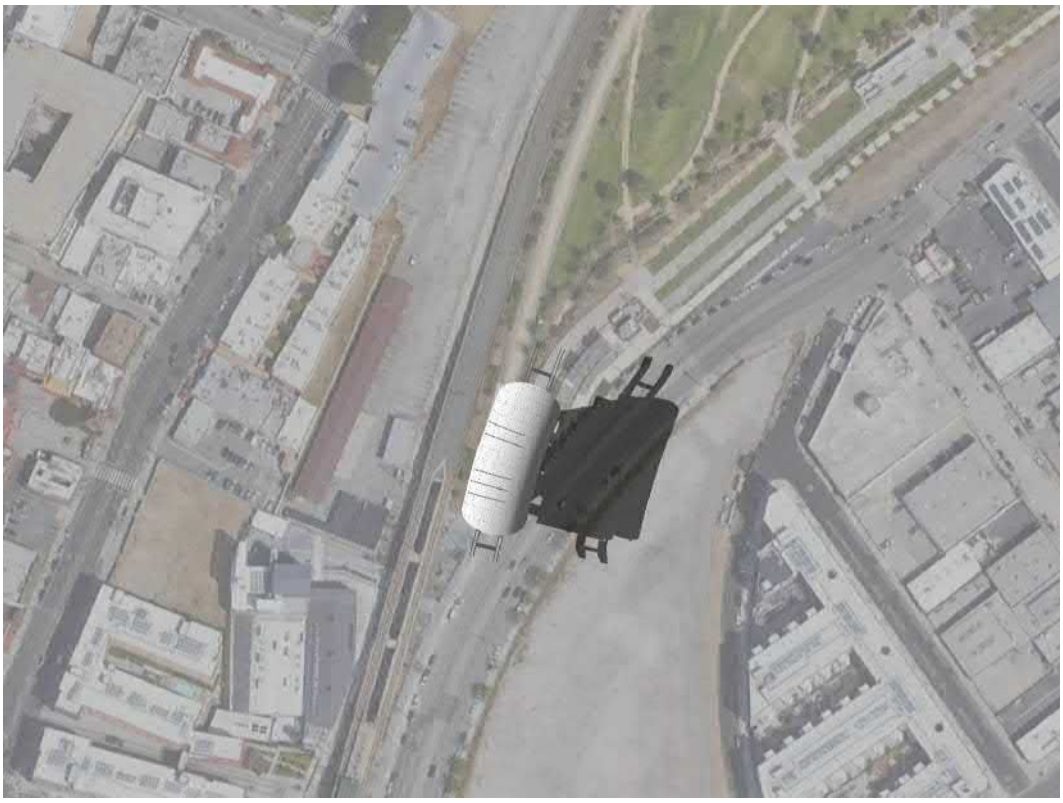
2 pm

AECOM

Figure 202
Chinatown/State Park Station (Design Option C) Summer Shadows
1:00pm - 2:00pm



3 pm



4 pm

Figure 203
Chinatown/State Park Station (Design Option C) Summer Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 204
Chinatown/State Park Station (Design Option C) Summer Shadows
5:00pm



9 am



10 am

Figure 205
Chinatown/State Park Station (Design Option C) Fall Shadows
9:00am - 10:00am



11 am



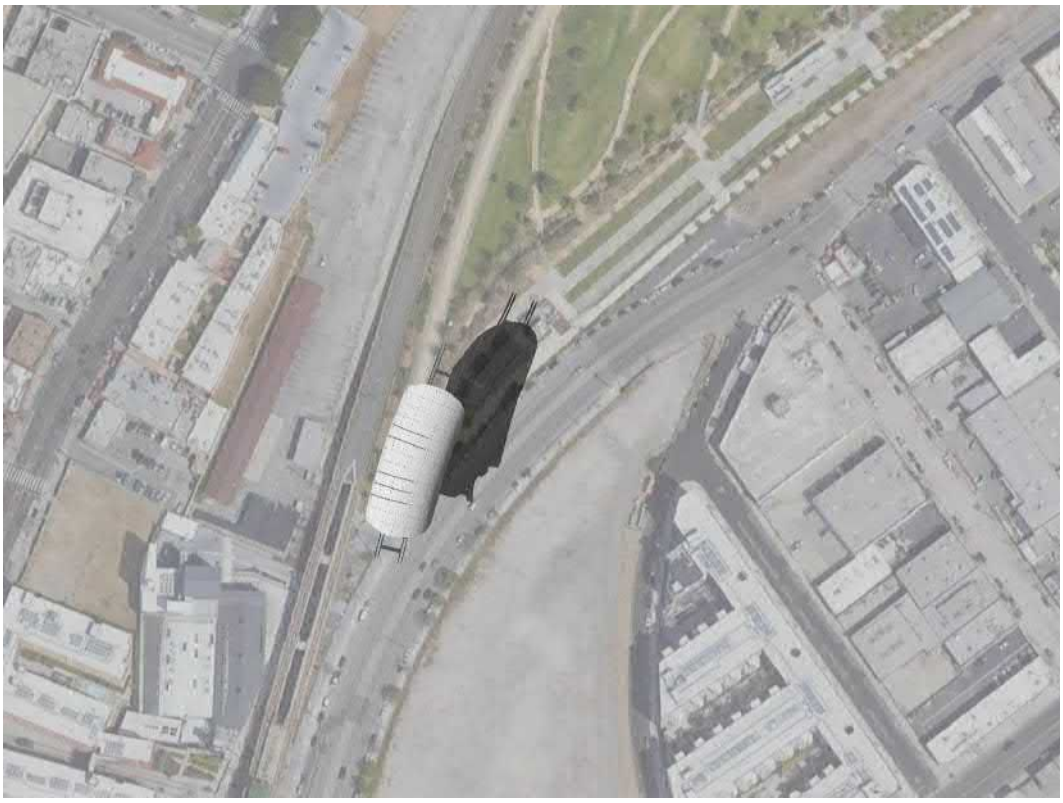
12 pm

AECOM

Figure 206
Chinatown/State Park Station (Design Option C) Fall Shadows
11:00am - 12:00pm



1 pm



2 pm

AECOM

Figure 207
Chinatown/State Park Station (Design Option C) Fall Shadows
1:00pm - 2:00pm

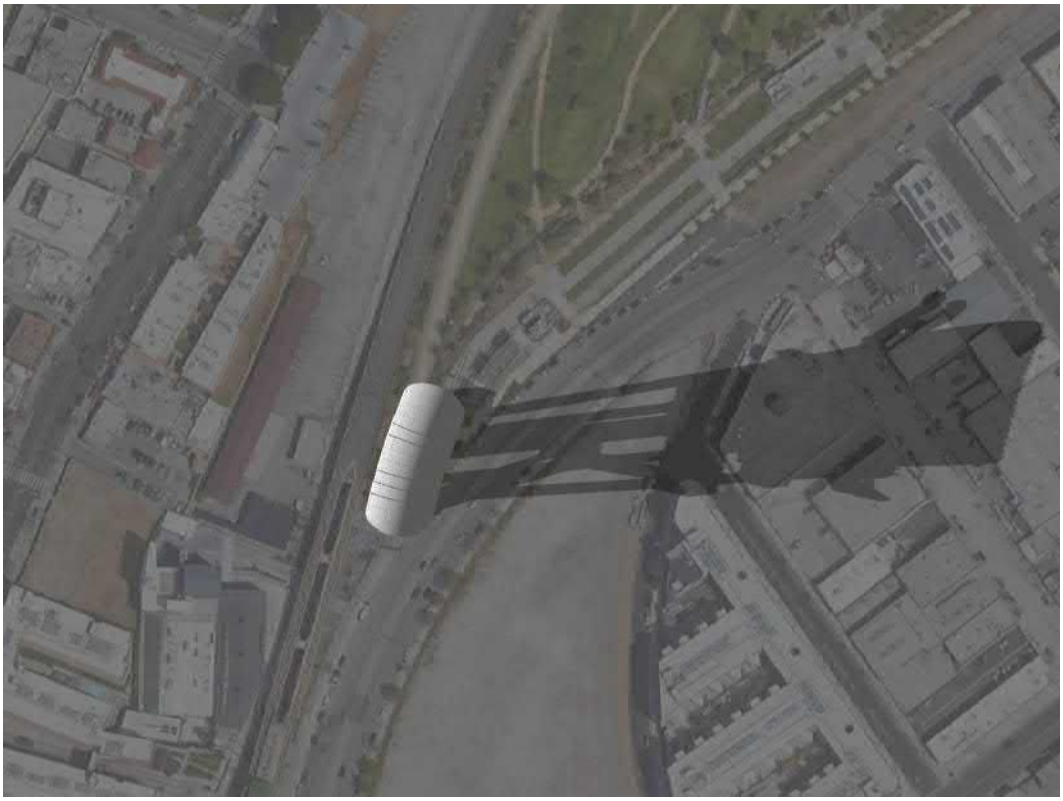


3 pm



4 pm

Figure 208
Chinatown/State Park Station (Design Option C) Fall Shadows
3:00pm - 4:00pm



5 pm

AECOM

Figure 209
Chinatown/State Park Station (Design Option C) Fall Shadows
5:00pm

APPENDIX C

- Lighting Study

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LOS ANGELES AERIAL RAPID TRANSIT

LIGHTING STUDY

Prepared for:

The Los Angeles Aerial Rapid Transit Draft Environmental Impact Report

May 10, 2022

This Lighting Study by Francis Krahe & Associate Inc. (Study) analyzes the proposed lighting associated with the Los Angeles Aerial Rapid Transit (Project) designed to transport people to/from Union Station to Dodgers Stadium in Los Angeles, California. The Project is an aerial gondola transportation system that would include three stations, a non-passenger junction, and cable-supporting towers at various locations along the alignment. The Project is located largely within the public right of way following Alameda Street and then continuing along Spring Street in a northeast direction through the community of Chinatown to the southernmost corner of the Los Angeles State Historic Park. The Project would then continue northeast over the western edge of the Los Angeles State Historic Park and the Los Angeles County Metropolitan Transportation Authority L Line (Gold) to the intersection of North Broadway and Bishops Road. At this intersection, the Project would turn and continue northwest following Bishops Road toward its terminus at Dodger Stadium.

This Study reviews the parameters that affect light trespass and glare (each as defined below), reviews the applicable lighting metrics and regulations pertaining to artificial lighting, examines the existing lighting conditions within and surrounding the Project, and evaluates the Project's lighting and illuminated signs to identify potential environmental impacts.

The methods of analysis utilized for this Study 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, and the actual measurements of light sources and illuminated surfaces. IESNA reference publications include: American National Standards Institute (ANSI)/Illuminating Engineering Society (IES) OL-IM-01 Lighting Fundamentals, Metrics and Calculations; ANSI/IES OL-IM-02 Lighting Design, Engineering, and Specifications; ANSI/IES OL-IM-03 Lighting Design Criteria and Illumination Recommendations; and ANSI/IES OL-IM-04 Lighting Equipment Testing Procedures and Measurements. The ANSI/IES Standards replace the IESNA 10th Edition Handbook, which supersedes the 9th Edition IESNA Handbook and various Recommended Practice (RP) References published by IESNA prior to 2011.

1. Summary

This Study reviews the proposed Project's exterior lighting and illuminated signage to evaluate potential environmetal impacts. Concept Plans for the Project's exterior lighting and illuminated signage are included at Appendix A and Appendix B, respectively. Impacts are evaluated with respect to light trespass and glare. These two technical terms are defined by the IESNA as follows:

- ***Light Trespass***[1] is the artificial light produced on a property that falls on an adjacent property. Light Trespass is measured in terms of illuminance[2] (foot-candles or metric units lux), and can be measured at any point and in any direction. Where Light Trespass is evaluated the illuminance is measured perpendicular to the source of light, toward the source of light, at the property line, or the location where light would cause an issue, such as a residential window or balcony. Light Trespass is evaluated at night.

- ***Glare***[3] occurs when either the luminance[4] is too high or the range of brightness in a visual field is too large. A bright light source, such as a flood light or street light, viewed against a dark sky may be uncomfortable to look at, and may create a temporary sensation of blindness, which is referred to as disability glare. Glare is evaluated by measuring the luminance (footlamberts or metric units candelas/m^2) at the source of light, such as a digital sign, in comparison to the surrounding adjacent luminance. Contrast ratios define the extent of Glare within the field of view at any observer position. The Contrast ratio is determined by the variation of luminance within the field of view. "High," "Medium," and "Low" Contrast ratios are the comparison of peak measured luminance to the average luminance within a field of view: Contrast ratios greater than 30:1 (High); between 30:1 to 10:1 (Medium); and below 10:1 (Low), respectively. Contrast ratios above 30:1 are generally uncomfortable for the human eye to perceive. Any source luminance that is more than

[1] IESNA Handbook, 10th Edition, 19.3: Light Pollution and Trespass, page 19.7

[2] Illuminance: 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).

[3] IESNA Handbook, 10th Edition, 4.10: Glare, page 4.25

[4] Luminance: 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.

50 times the adjacent background will be viewed as prominent, and, may be viewed as distracting. Glare may occur either during the day or night.

This Study analyzes the Project's potential environmental impacts resulting from the Project's building and cabin lighting program (Building Lighting) as described by the Building Lighting Concept included herein as Appendix A, and the Project's illuminated signs (Sign Lighting), as described by the Sign Concept Design Documents included in Appendix B of this Study.

Light Trespass

Regarding light trespass this Study analyzes the Project's compliance with the City of Los Angeles Municipal Code (LAMC), CALGreen, the Cornfield Arroyo Seco Specific Plan (CASP), and the River Improvement Overlay (RIO).

Regarding the LAMC, while the light trespass requirements of the LAMC generally do not apply to lighting for projects within the public right of way this Study analyzes the Project with respect to the LAMC requirements, to present a convervative analysis of any potential Project impact. Accordingly, as evaluated in this Study the Project Lighting would comply with the following light trespass illumination requirements:

Project Building Lighting would not exceed 2.0 footcandles (fc) at residential property boundaries.

Project Sign Lighting would not exceed 3.0 footcandles (fc) at residential property boundaries.

This Study demonstrates light trespass illuminance from the Project at adjacent residential properties would be below the threshold of 2.0 fc for Building Lighting and below the threshold of 3.0 fc for Sign Lighting.

Regarding CALGreen, this Study also demonstrates that the Project Building Lighting would be less than the CALGreen light trespass illuminance threshold of 0.74 fc for all non-exempt exterior lighting. Lighting required for ADA access and for public right of way illumination is exempt from CALGreen. Accordingly that lighting is excluded from the CALGreen analysis. Sign Lighting is also exempt from CALGreen.

This Study also reviews the Project for compliance with the CASP requirements for light trespass illuminance and demonstrates that the Project complies with the CASP because the Project's light fixtures are exempt from the CASP exterior lighting requirements. The CASP includes Section 2.3, paragraph E.2, Exemptions[5]., which states "The following outdoor lighting fixtures and activities are exempt from the requirements of this section: …Internally illuminated signs", "Architectural lighting whether it is freestanding or attached to a building, provided the lighting does not exceed an intensity of 60 watts" and "Pedestrian lighting that does not have an intensity greater than 60 watts." All Project Signs are internally illuminated and are therefore exempt from the CASP light trespass requirements. In addition, the Project's Building Lighting is either architectural lighting or pedestrian lighting and the Project includes design features which stipulate all architectural lighting or pedestrian lighting is less than 60 watts. Therefore all Project Building Lighting is exempt from the CASP light trespass requirements.

This Study also reviews the Project for compliance with the RIO requirements for light trespass illuminance. In certain locations the Project exceeds the RIO 0.20 fc maximum light trespass illuminance at the Project property line and the RIO 0.01 fc maximum light trespass illuminance at 15 feet beyond the Project property line. Although the Project would exceed the RIO requirements in certain locations, which would represent a conflict with the RIO, the environmental effect of the lighting levels would not represent a significant impact on the environment. The areas where Project lighting would exceed the RIO at the eastern boundaries of the Alameda Station Project site, the Alpine Tower site, and where the Cabins travel along the Project Alignment from W. College Avenue to Alameda Station are urban areas with existing lighting that exceeds the maximum illuminance defined by RIO. These urban areas require higher illuminance for safety and security. Furthermore the Alameda Project site, the Alpine Tower site and the Project Alignment from S. College Street to the Alameda Station are more than 2,600 feet from the LA River, and therefore have no direct influence on the lighting within or adjacent to the LA River. In addition, the Project includes a proposed Overlay District or other similar legislative action to establish the land use regulations for the Project to ensure consistent implementation of development standards throughout the Project sites in recognition of the Project's unique characteristics, including unique opportunities for public benefits and unique constraints posed by the Project site's location which are not experienced by other sites. With

[5] *CASP page 2-50*

approval of the Overlay District or other similar legislative action, which would include its own lighting standards, there would be no conflict with the RIO.

Glare

This Study demonstrates glare from the Project will not create a new high contrast condition visible at adjacent residential use properties or roadways. This Study confirms the contrast ratio, which compares the maximum Project luminance to the existing average luminance measured at sites adjacent to the Project, will be less than 30:1. Contrast ratios less than 30:1 indicate there is no glare from the Project lighting. Therefore, the Project will not create a new glare condition at adjacent sensitive use or residential properties.

The glare visible to drivers at roadways is evaluated with respect to the standards identified by the California Vehicle Code, which defines maximum permissible luminance within drivers' field of view during the day and at low light levels corresponding to overcast conditions, twilight and or night. This Study confirms the Project would not exceed the maximum luminance defined by the California Vehicle Code during the day, and during periods of low sun intensity such as overcast sky conditions, or after sunset until before sunrise.

The Project includes the following Project Design Features:

Building Lighting will not exceed 60 watts.

Building Lighting outdoor luminaires will not exceed 6200 initial lumens.

Sign Lighting luminance will not exceed 10,000 candelas per m^2 (cd/m^2) during the day from after sunrise until 45 minutes prior to sunset. Sign Lighting will not exceed 300 cd/m^2 at night from sunset until 45 minutes prior to sunrise.

Sign Lighting luminance shall transition smoothly from daytime luminance to nighttime luminance and vice versa.

Illuminated signs that have the potential to exceed 300 cd/m^2 will include an electronic control mechanism to reduce sign luminance to 300 cd/m^2 at any time when ambient sunlight is less than 100 footcandles (fc).

2. Project Description

The proposed Los Angeles Aerial Rapid Transit (Project) would connect Union Station to the Dodger Stadium property via an aerial gondola system. The proposed Project would provide an aerial rapid transit option for visitors to Dodger Stadium, while also providing access between Dodger Stadium, the surrounding communities, and the regional transit system accessible at Union Station. The aerial gondola system would be approximately 1.2 miles and consist of cables, three passenger stations, a non-passenger junction, towers, and gondola cabins.

This Study analyzes the Project exterior Building Lighting and Sign Lighting within the following Project locations:

Alameda Station

Alameda Tower

Alpine Tower

Chinatown / State Park Station

Broadway Junction

Stadium Tower

Dodger Stadium Station

Typical Cabin

The Project alignment, stations, junctions, and towers, and surrounding residential use properties are illustrated in Figure 1.

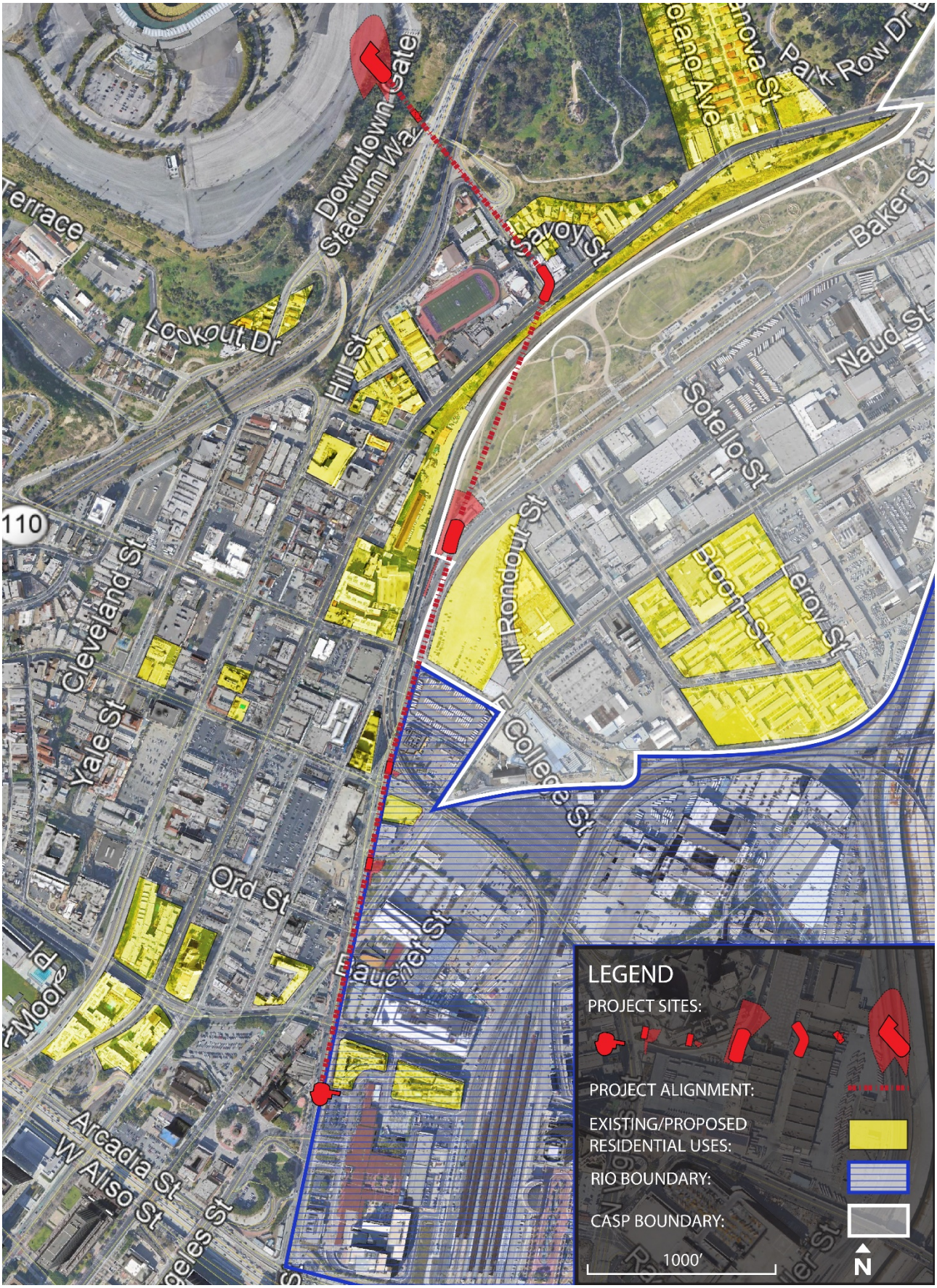

Figure 1: Project Alignment and Project Sites

Project Building Lighting has been designed to meet the California Building Code illumination requirements and to achieve target illuminance levels recommended by the IESNA for the transportation uses within the Project. The Building Lighting would include low-level lighting for security and wayfinding purposes adjacent to and within the stations, junction, and towers, within cabins, at the vertical circulation, and areas for ticketing, fare checking, and queueing. In addition, low-level lighting to accent signage, architectural features, landscaping, adjacent pedestrian plazas, and potential mobility hubs would be installed at the stations, junction, and towers. Lighting would also be provided underneath the elevated stations and junction. Lighting for the pedestrian access enhancements, including the pedestrian improvements between Metro's L Line (Gold) Station and the pedestrian connection between the Dodger Stadium Station and Dodger Stadium would include new pole lights for security and wayfinding purposes, as well as low-level lighting to accent signage and landscaping. Exterior lighting would be shielded or directed toward the areas to be lit to limit spillover onto adjacent properties and off-site use. Appendix A defines the Project Lighting Concept evaluated to calculate Building Lighting trespass illuminance in this Study, with the calculation results presented in Tables below. Complete calculated data is presented in Appendix H.

The proposed Project would include signage to support wayfinding for transit patrons including information about transit connections and other important information to facilitate transit usage. Signage may also including naming rights and sponsorship. Such signage may include identification and other static signs, electronic digital displays and/or changeable message light-emitting diode (LED) boards. Project Sign Lighting has been designed to meet the requirements of the California Building Code, the California Vehicle Code, and the Los Angeles Municipal Code. The Project includes illuminated signs at each of the Project locations as illustrated by the Sign Concept Plan included here in Appendix B. Appendix B includes all illuminated sign locations and dimenions of the signs at each Project site.

3. 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 in this Study and the related practice standards to facilitate discussion of these issues. The following technical terms are used 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 Property by a ratio of luminance. Contrast is the ratio of one surface luminance to a second surface luminance or to the field of view. Contrast exceeding 30 to 1 are usually deemed uncomfortable; 10 to 1 are clearly visible; and less than 3 to 1 appear to be equal.

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 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 range of brightness 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 of a point source decreases with the square of the distance from the light source (see Inverse Square Law definition).

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 2). 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.

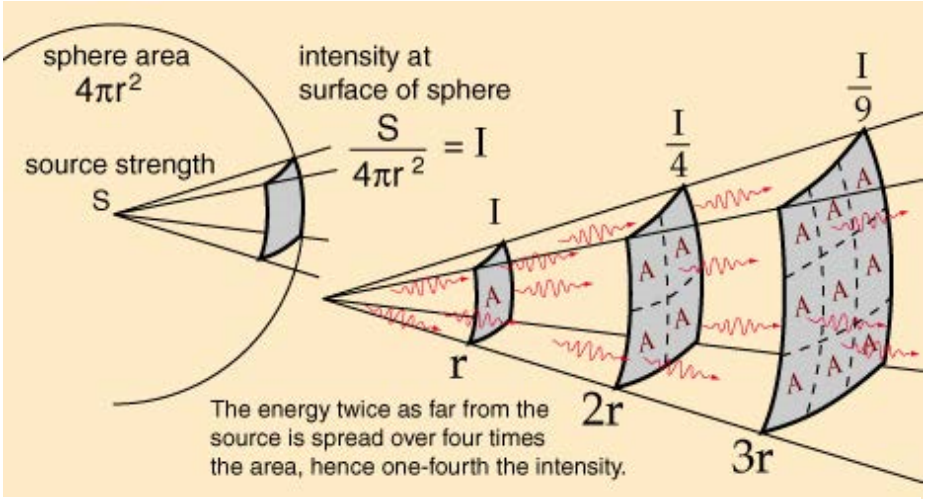

Figure 2: Inverse square law diagram (hyperphysics.phy-ast.gsu.edu)

Light 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 (LZ):

Defined by IESNA and summarized in Section 4.1 of LP-11-20 Environmental Considerations for Outdoor Lighting and adopted by CALGreen.

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.

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.

4. Review of Lighting Regulations & Reference Standards

Exterior lighting is regulated throughout California by the local municipal code and the state energy and building codes. Pertinent lighting sections are summarized below for the City of Los Angeles, California Building Standards Code, the State of California Green Building Code, the California Energy Code (CALGreen), and the California Vehicle Code. Additional reference standards include model lighting ordinances provided by the Illuminating Engineering Society of North America (IESNA) and the International Dark Sky Organization, ASHRAE 90-75, and the U.S. Green Building Council.

4.1 Los Angeles Municipal Code

The City of Los Angeles Municipal Code (LAMC) regulates lighting with respect to building lighting, transportation, street lighting, light trespass (i.e., the spillover of light onto adjacent light-sensitive properties) and Sign Lighting. 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 the Project Building Lighting include the following sections of the LAMC:

LAMC Chapter 9, Article 3, Div. 1, Sec. 93.0117 Outdoor Lighting Affecting Residential Property:

a) "The provisions of this section shall apply to any exterior luminaire, multi-head luminaire, lamp holder or sign light source.

b) No person shall construct, establish, create, or maintain any stationary exterior light source that may cause the following locations to be either illuminated by more than two fc (21.5 lx) of lighting intensity or receive direct glare from the light source. Direct glare, as used in this subsection is a glare resulting from high luminances or insufficiently shielded light sources that is in the field of view.

    1. Any exterior glazed window or sliding glass door on any other property containing a residential unit or units.

    2. Any elevated habitable porch, deck or balcony on any other property containing a residential unit or units.

3. Any ground surface intended for use but not limited to recreation, barbecue, or lawn areas on any other property containing a residential unit or units."

EXCEPTIONS: Subsection (b) shall not apply to:

1. Any frosted light source emitting 800 lumens or less.
2. Any other light source emitting more than 800 lumens where the light source is not visible to persons on other residential property. ….
5. Emergency lights …. as required by governmental agencies.
6. Lighting sources owned or controlled by any public agency for the purpose of directing or controlling navigation, traffic or for highway or street illumination.
7. Aircraft warning lights.
8. Any other light source which is a minimum of 2,000 feet (609.6 m) in distance from any other property with a residential unit or units.

Some of the Project's lighting is subject to exceptions provided in LAMC Section 93.0117, such as light sources less than 800 lumens, light sources for emergency egress lighting, light sources for traffic and street illumination, and aircraft warning lights. Specifically, the Project's Building lighting is primarily related to the safe operations of the transportation facility. Nevertheless, the requirements of LAMC Sec. 93.0117 are utilized in this Study to present a conservative analysis of any potential Project lighting impacts and the potential exceptions are not applied to the Project's analysis.

LAMC also includes the following requirements which apply to Building Lighting in this Study within 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 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."

LAMC regulations which apply to Sign Lighting include the following section pertaining to sign illumination:

LAMC Chapter 1, Article 4.4, Sec. 14.4.4 E: E.: "**Sign Illumination Limitations**. No sign shall be arranged and illuminated in a manner that will produce a light intensity of greater than three foot candles above ambient lighting, as measured at the property line of the nearest residentially zoned property."

This Study utilizes the LAMC Sec. 14.4.4 E: E. regulations to analyize potential impacts from the Project's signs.

4.2 Cornfield Arroyo Seco Specific Plan

A portion of the Project Alignment and the Chinatown/Park Station Project Site are located within the Cornfield Arroyo Seco Specific Plan (CASP), established by the City of Los Angeles. Specifically, the northern portion of the Chinatown/State Park Station is located within the Greenway District as identified in the CASP. The CASP defines the boundary of the Specific Plan by a map illustration in Chapter 1, page 1-2 (see Appendix D). The CASP boundary in the vicinity of the Project includes the western boundary at the east side of the N. Spring St right of way, extending north along the west boundary of the Los Angeles State Historic Park to the intersection of N. Broadway St. and the Los Angeles River.

Section 2.3 Urban Design, E. Lighting within the CASP includes the following lighting regulations regarding exterior Building Lighting:

"1. General Requirements

a. Light levels shall be measured with a photoelectric photometer, following the standard spectral luminous efficiency curve adopted by the International Commission on Illumination.

b. The outdoor lighting for all projects in the Urban Center, Innovation, and Village Districts shall be designed such that it produces a maximum initial illuminance value no greater than 0.20 horizontal and vertical foot candles when measured at the site boundary and no greater than 0.01 horizontal foot candles when measured 15 feet from the site. No more than 5.0% of the total initial lumens shall be emitted at an angle of 90 degrees or higher from nadir (straight down).

c. The outdoor lighting for all projects in the Greenway District shall be designed such that it produces a maximum initial illuminance value no greater than 0.01 horizontal and vertical foot candles when measured at the site boundary. None of the total initial lumens shall be emitted at an angle of 90 degrees or higher from nadir (straight down).

d. Lighting shall be provided along all vehicular access ways and pedestrian walkways.

e. All low pressure sodium, high pressure sodium, metal halide, fluorescent, quartz, 60 watts or greater incandescent, mercury vapor, and halogen fixtures shall be fully shielded in such a manner as to preclude light pollution or light trespass on any of the following: an abutting residential use district; a lot zoned for residential use; the public right of way, a park, or open space.

f. Lighting (exterior building and landscape) shall be directed away from properties and roadways, and shielded as necessary. In particular, no lighting shall be directed at the window of a residential unit located either within or adjacent to a project..”

2. Exemptions. The following outdoor lighting fixtures and activities are exempt from the requirements of this section:

. . .

f. Internally illuminated signs.

. . .

h. Architectural lighting whether it is freestanding or attached to a building, provided the lighting does not exceed an intensity of 60 watts.

i. Pedestrian lighting that does not have an intensity greater than 60 watts.”

The Project Building Lighting includes design features which stipulate architectural lighting that does not exceed an intensity of 60 watts and pedestrian lighting that does not have an intensity greater than 60 watts. Therefore the CASP requirements do not apply to the Building Lighting as stated under CASP Section 2-3, 2(h) and (j). Exemptions.

In addition, the Project Signs are internally illuminated, therefore the CASP requirements do not apply to the signs as stated under CASP Section 2-3, 2(f). Exemptions.

4.3 Los Angeles River Improvement Overlay District

A portion of the Project Alignment and the Alameda Station, the Alameda Tower, and the Alpine Tower Project Sites are located within the River Improvement Overlay District (RIO), established by Ordinance Nos. 183144 and 183145 to support implementation of the Los Angeles River Revitalization Plan. The RIO boundary is defined by 9 maps within the Ordinance. Map Sheet 6 of 9 (included herein as Appendix C) defines the boundary in the vicinity of the Project and locates the western boundary of the RIO at the N. Alameda St right of way, extending north to W. College Street and east along the railroad right of way to the Los Angeles River.

The RIO establishes landscaping, design criteria, and administrative review procedures for projects within the RIO. Below is the portion of the RIO ordinance that concerns Building Lighting, found at LAMC section 13.17(F)(3):

“Exterior Site lighting.

(a) All site and building mounted lighting shall be designed such that it produces a maximum initial luminance value no greater than 0.20 horizontal and vertical foot candles at the site boundary, and no greater than 0.01 horizontal foot candles 15 feet beyond the site. No more than 5.0 percent of the total initial designed lumens shall be emitted at an angle of 90 degrees or higher from nadir (straight down).

(b) All low-pressure sodium, high pressure sodium, metal halide, fluorescent, quartz, incandescent greater than 60 watts, mercury vapor, and halogen fixtures shall be fully shielded in such a manner as to not exceed the limitations in Subdivision 3(a), above.”

The Project Building Lighting is evaluated with respect to the criteria defined by the RIO at the Alameda Station, the Alameda Tower, and the Alpine Tower.

The RIO requirements do not apply to Signs because the RIO Project Definition states that "sign permits are exempt for the River Improvement Overlay District." (Zoning Information No. 2358.)

4.4 California Code of Regulations, Title 24 (California Building Standards Code)

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 Building Lighting:

California Energy Code (CEC), Title 24, Part 6

The CEC stipulates allowances for lighting power and provides lighting control requirements for various lighting systems (see Appendix D herein), with the aim of reducing energy consumption through efficient and effective use of lighting equipment.

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 5.1106.8, Light pollution reduction, requires that all non-residential outdoor lighting must comply with the following requirements:

"The minimum requirements in the CEC for Lighting Zones 1–4 as defined in Chapter 10 of the California Administrative Code ….; and

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

Further requirements and exceptions are defined in Section 140.7 PRESCRIPTIVE REQUIREMENTS FOR OUTDOOR LIGHTING

Section 140.7 includes the following exceptions which apply to the Project Building Lighting:

"Exceptions to Section 140.7(a): when more than 50 percent of the light from a luminaire falls within one or more of the following applications for the lighting power for that luminaire shall be exempt from Section 140.7….

3. Lighting for public streets, roadways, highways and traffic signage lighting including lighting for driveway entrances occurring in the public right of way….

8. Lighting of tunnels, bridges, stairs, wheelchair elevators, light for America Disabilities Act (ADA) compliance, and ramps that are other than parking garage ramps."

Exception 3 applies to the Project lighting required for the roadways below and adjacent to the Project. Additionally, Exception 8 applies to the Project lighting required to comply with the ADA. Therefore, for the Project's CALGreen analysis lighting that is exempt under Exception 3 or 8 is excluded from the light trespass and glare analysis.

The 2019 California Energy Code includes the following requirements for Glare:

Section 130.2 OUTDOOR LIGHTING CONTROLS AND EQUIPMENT

"(b) Luminaire cutoff requirements. All outdoor luminaire of 6,200 initial luminaire lumens or greater, shall comply with backlight, uplight, and glare (collectively referred to as "BUG" in accordance with IES TM-15-11, Addendum A) requirements as follows:

1. Maximum zonal lumens for backlight, uplight, and glare shall be in accordance with Title 24, Part 11, Section 5.106.8.

Exception 1 to Section 130.2(b): Signs

Exception 6 to Section 130.2(b): Luminaires that illuminate the public right of way on publicly maintained roadway, sidewalks and bikeways."

The Project Building Lighting is exempt from the requirements of Section 130.2 because the Project includes design features which limit all outdoor luminaires to less than 6200 initial lumens. Nevertheless, the Building Lighting Concept

also utilizes light fixtures which comply with BUG ratings in accordance with IES TM-15-11, Addendum A to limit offsite glare.

Furthermore, CALGreen also includes specific exceptions for the glare limits stipulated by BUG ratings under exception 1 and 6 in Section 130.2. Specifically, Exception 6 indicates that the portion of Project lighting required to illuminate the public right of way is exempt from the BUG rating Glare requirements of CALGreen. Again, although not required, the Project Building Lighting utilizes light fixtures which comply with Section 130.2 to illuminate the adjacent roadways.

In addition, Exception 1 indicates that the Project Sign Lighting is not subject to the glare requirements of CALGreen.

4.5 California Energy Code Lighting Zone LZ3

The Project Site and surrounding properties are an urban, mixed use, commercial, and residential zone with extensive nighttime use, including nearby residences, retail, restaurants, entertainment, education, and transportation venues. Current best practices for lighting standards recognize the unique issues related to night time use adjacent to light sensitive locations. The California Energy Code (CEC) includes designations for Lighting Zones (LZ) 1 through 4, included below in Appendix D, which correspond to the Light Trespass Illuminance recommendations within the IESNA 10th Edition Handbook, Table 26.4, included herein at Appendix E and F. The IESNA recommendations for light trespass Illuminance vary based upon the extent of night time human activity and the extent of natural habitat.

All urban areas within California are designated Lighting Zone 3 as default under the CEC, which limits the light trespass illuminance to 8 lux (0.74 footcandles). Per the CEC, California Building Energy Efficiency Standards, Section 10-114, page 40, 41, the designations for outdoor lighting zones in urban areas are as follows:

"The default for urban areas, as defined by the U.S. Census Bureau, is Lighting Zone 3. Local AHJs (Authorities Having Jurisdiction) may designate areas to Lighting Zone 4 for high intensity nighttime use, such as entertainment or commercial districts or areas with special security considerations requiring very high light levels."

The Project sites are all within the City of Los Angeles which is designated by the CEC as Lighting Zone 3. In addition, the IESNA defines Lighting Zone 3 as: "areas with moderatly high lighting levels. These typically include commercial corridors, high intensity suburban commercial areas, town centers, mixed use areas, industrual uses and shipping and rail yards with high night time activity, high use recreational and playing fields, regional shopping malls, car dealerships, gas stations, and other nighttime active exterior retail areas". Consistent with this, LAMC Chapter 9, Article 9, Division 5, Sec 99.05.106.8 applies Lighting Zone 3 to the City of Los Angeles by including the following reference to the CEC requirements: "Comply with lighting power requirements in the California Energy Code, California Code of Regulations, Title 24, Part 6. Meet or 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."

IESNA Table 26.5, lists a Pre-curfew 8 Lux (0.74 footcandles) maximum at the location where trespass is under review for Lighting Zone 3. The CEC standard is well defined and supported by the IESNA and ASHRAE, and other independent lighting organizations such as the International Dark Sky Organization and U.S. Green Building Council.

4.6 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."

4.7 IESNA Recommended Practices

The Illuminating Engineering Society of North America (IESNA) produces illumination research and engineering standards which are widely recognized and accepted as best practices for the science of lighting research, lighting terminology definitions, and the methods of analysis and application of illuminantion engineering.

The IESNA reference publications include American National Standards Institute (ANSI)/Illuminating Engineering Society (IES) ANSI/IES OL-IM-03 Lighting Design Criteria and Illumination Recommendations, which provides definitions of lighting science and lighting applications; ANSI/IES LP-11-20 Environmental Considerations for Outdoor Lighting which provides definition of light trespass and glare; and ANSI/LP 2-20 Designing Quality Lighting for People in Outdoor Environment, which summarizes research of light affects on human health at night and provides guidelines for environmental regulations for outdoor lighting. These publications are the most recent supplements to the the IESNA 10th Edition Lighting Handbook.

IES LP-11-20 defines outdoor lighting zones which describe the extent of human activity at night versus natural habitat (see Appendix F of this Study) for a range of existing lighting conditions, from low or no existing lighting to high light levels in urban areas. Lighting zones are included in CEC as noted above in relation to allowable energy use for outdoor lighting. In addition, the IESNA 10th Edition Lighting Handbook defines recommended light trespass limits in Table 26.5, included in the Appendix G hereto, relative to the Outdoor Lighting Zones. The recommended light trespass illuminance limits define the maximum light trespass values in lux at the location where trespass is under review.

The existing conditions surrounding the Project site are best described as Lighting Zone 3. IESNA Table 26.5, lists a Pre-curfew 8 Lux (0.74 footcandles) maximum at the location where trespass is under review for Zone 3.

5. Significance Threshold

Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 California Code of Regulations, Sections 15000–15387) provides a set of sample questions to evaluate 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 or 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 sites and affect adjacent light-sensitive areas.

Based on these factors and the LAMC requirements identified above, this Study evaluates whether the Project would create a significant impact with regard to artificial light and glare if:

The Project Building Lighting illuminance is greater than 2.0 foot-candles at a residential property boundary.

The Project Sign Lighting illuminance is greater than 3.0 foot-candles at a residential property boundary.

or:

The Project Building Lighting or Sign Lighting creates new high contrast conditions visible within the field of view from a residential property.

And based upon the California Vehicle Code requirements identified above

The Project would create a significant impact with regard to drivers of motor vehicles if the maximum measured brightness of the light source within 10 degrees from the driver's normal field of view exceeds 1,000 times the minimum measured brightness in the driver's field of view, except when the minimum values are less than 10 footlamberts, or at minimum luminance less than 10 footlamberts, the maximum measured source brightness

exceeds 500 fL plus 100 times the angle, in degrees, between the driver's field of view and the light source.[6]

6. Methodology

6.1 Existing Conditions Procedures

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 Skyglow 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 Monitoring 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 as per as per IESNA standards. These measurements identify the illuminance received at a Monitoring Site as well as the direction and intensity of light converging on the Monitoring Site from the direction of the Project. At Monitoring Sites located more than 100 feet from the Project as noted in Section 7 below, 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 measured luminance from a precisely perpendicular plane analysis. Where the Monitoring Sites are less than 100 feet from a Project Site both vertical and horizontal illuminance are measured. The existing Illuminance is measured with a Minolta Illuminance meter.



Figure 3: Minolta LS-100 meter

The existing luminance is measured from a Monitoring Site to light sources and surfaces within the field of view toward the Project from that Monitoring 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 in this Study reports luminance data in either candelas per square meter (cd/m^2) or footlamberts (fL). All existing luminance data measured and reported in this Study are recorded as cd/m^2.

6.2 Project Analysis

The analysis of the Project includes evaluation of the light trespass illuminance from the Project at adjacent sensitive use or residential properties, and an evaluation of glare from the Project visible at sensitive use or residential properties or at adjacent roadway locations.

This Study analyzes the Building Lighting including lighting within or on the cabins, at each station, or junction, and each tower within the proposed Project route, for both light trespass illuminance and glare. This Study also analyzes Signs, including signs within the cabins, at each station, junction, and tower within the proposed Project route, for both light trespass illuminance and glare.

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

This Study presents a conservative analysis with respect to light trespass and glare. The Project Building Lighting presented in Appendix A is evaluated with all proposed lighting operating at full intensity. The Project Sign Lighting presented in Appendix B is evaluated with all signs operating at the maximum luminance, all white.

6.2.a Project Light Trespass Analysis

Light trespass illuminance is evaluated with respect to vertical and horizontal illuminance at the locations where lighting is under review through the illumination modeling software program AGI32. This software utilizes the Project three-dimensional architectural computer model and the building exterior materials to generate an accurate prediction of future Project illuminance from Building Lighting (Appendix A), and the Sign Lighting identified within the Sign Concept (Appendix B). The calculated illuminance data is presented at 10 feet on center within a vertical planar surface, extending from grade to the maximum height of the Project, which is 200 feet above grade. The calculation planes simulate the illumination (fc) captured by light meters.

This Study evaluates light trespass illuminance for Building Lighting separately from Sign Lighting since Building Lighting and Sign Lighting are regulated by the LAMC and CEC with different requirements under separate sections as noted above in Section 4.

Light trespass illuminance from Building Lighting is evaluated with respect to the regulatory requirements defined in Section 4 above, including LAMC Chapter 9, Article 3, Div. 1, Sec. 93.0117 which defines maximum illuminance of 2.0 fc at the nearest residential property line; and CALGreen, which defines a maximum 0.74 fc at the Project property line or centerline of the adjacent public right of way. Project locations within the CASP or RIO are also evaluated for compliance with the CASP and RIO requirements. The CASP Greenway maximum light trespass illuminance is 0.01 fc at the Project Boundary. The RIO defines a maximum of 0.20 fc at the Project property line and 0.01 fc at 15 feet beyond the Project property line.

The light trespass illuminance from Sign Lighting is evaluated in this Study with respect to LAMC Chapter 1, Article 4.4, Sec. 14.4.4 E: E, which defines a maximum illuminance of 3.0 fc at the nearest residential use. Sign Lighting

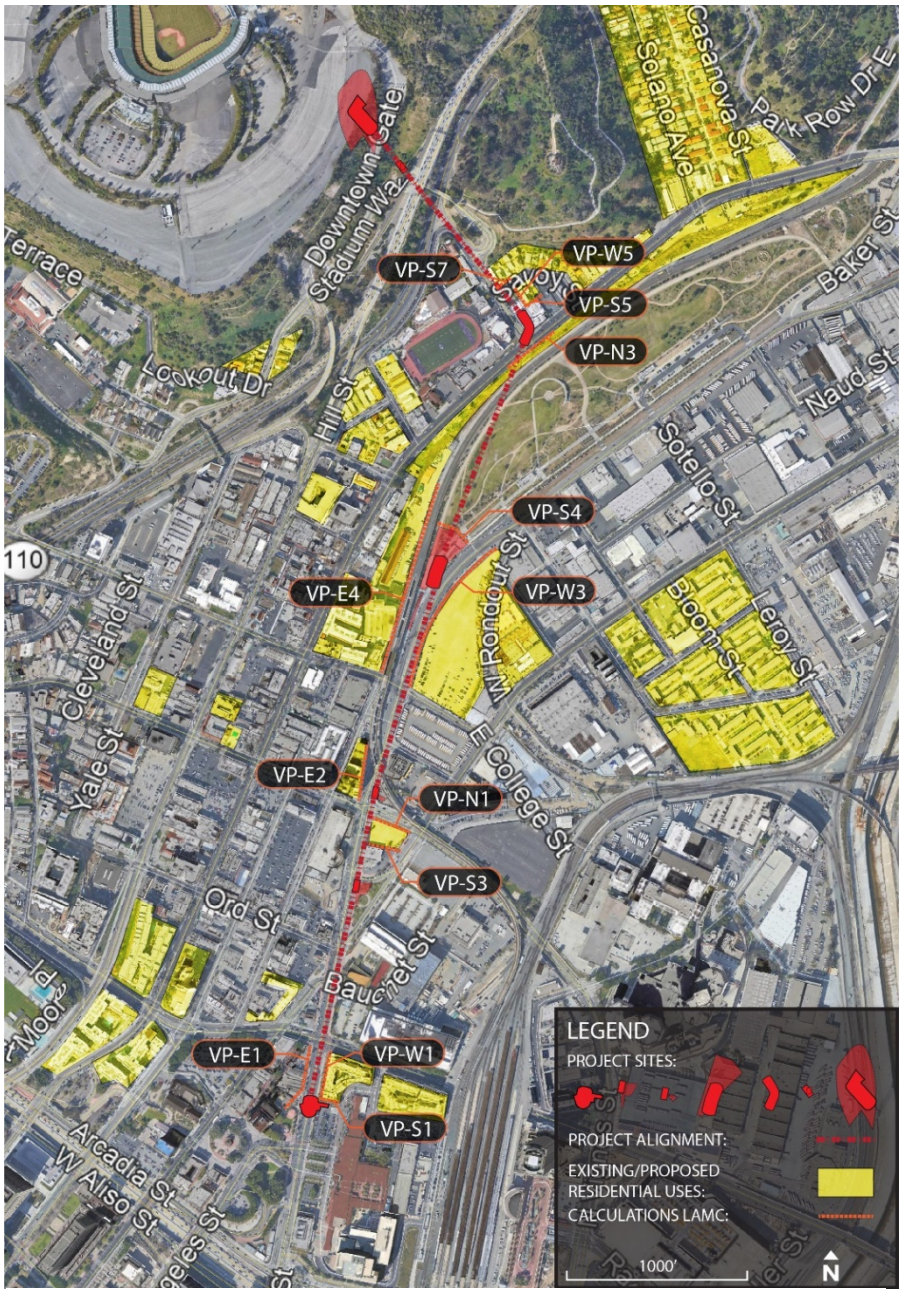

Figure 4: Calculations LAMC

trespass illuminance is not regulated by CALGreen.

The locations for analysis with respect to LAMC (Building Lighting and/or Sign Lighting) correspond to the nearest residential properties adjacent to the Project sites, as illustrated in Figure 4. Light trespass illuminance is evaluated at the residential property lines adjacent to the Project, with respect to horizontal illuminance at the ground plane, and with respect to vertical illuminance from grade to a maximum building or sign elevation above grade (for this Project 200 feet above grade). Figure 4 illustrates the locations of the vertical and horizontal illuminance calculations at adjacent residential properties, labeled "Calculations LAMC", from grade to 200 feet above grade. In Section 8 figures are provided that show the calculation planes for each Project Site.

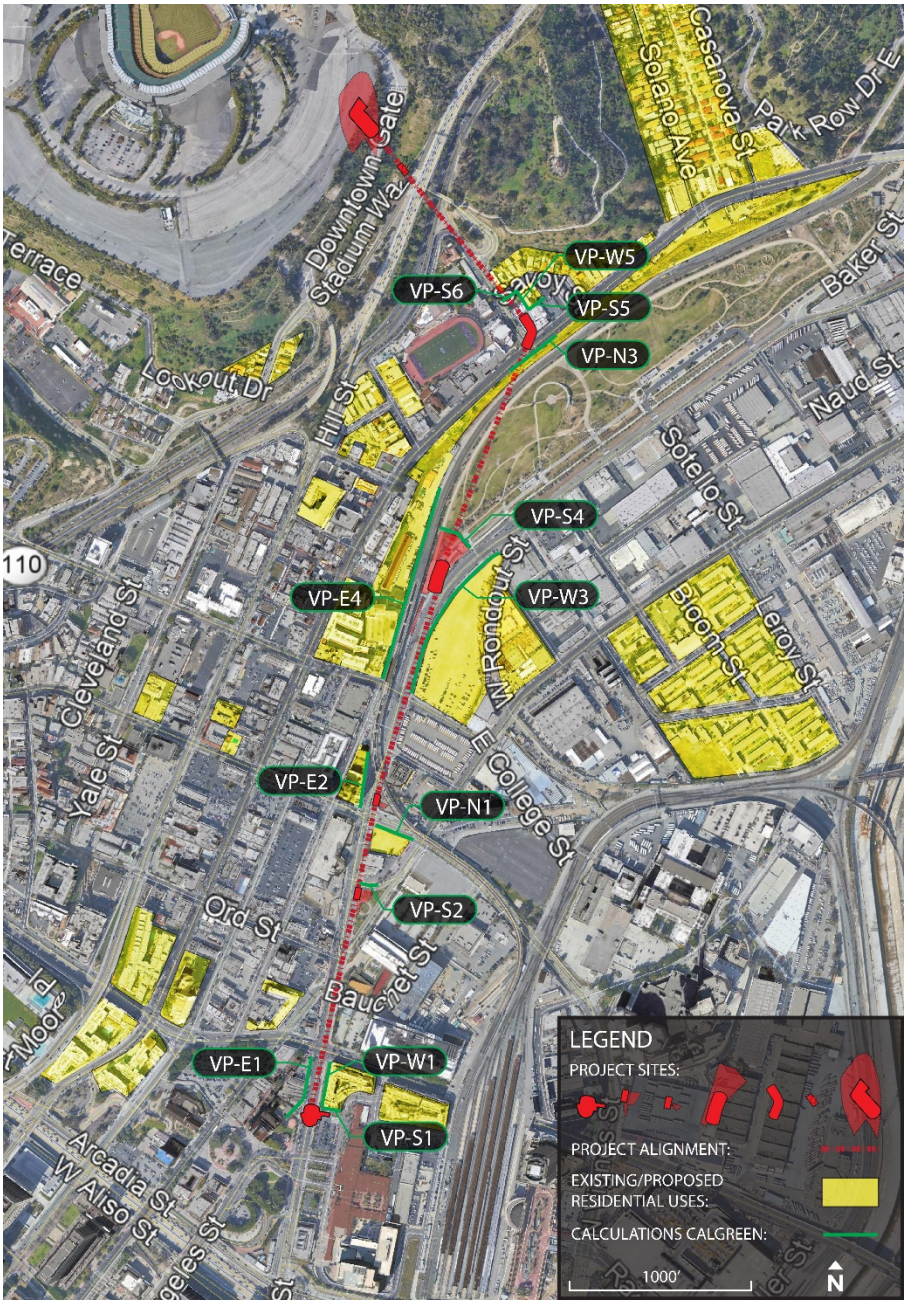

Figure 5: Calculations CALGreen

The Building Lighting light trespass illuminance is further analyzed with respect to the requirements of the CALGreen Code, Paragraph 5.1106.8, Light Pollution Reduction, which defines the maximum light trespass illuminance corresponding to Lighting Zone 3 at 0.74 fc (8 Lux). CALGreen defines the location where lighting is under review as the Project property line, or 5 feet beyond a Project property line which abuts public walkways, bikeways, plazas or parking lots, and at the center of the public right of way where the Project property line abuts a public roadway or transit line[7]. The CALGreen analysis does not include the lighting required for safety and for compliance with ADA. Figure 5 illustrates the locations of the horizontal and vertical illuminance calculations at the Project property site boundaries or at the center of the adjacent public right of way, where these boundaries are adjacent to sensitive use properties. This analysis does not include an analysis of all Project boundaries because the focus of this Study is to evaluate whether the Project would have a CEQA light or glare impact. The vertical calculation planes are labeled "Calculations CALGreen" in Figure 5, and extend from grade to 200 feet above grade. In Section 8 figures are provided that show the calculation planes for each Project Site.

[7] *2019 CALGreen, Table 5.106.8 [N] BACKLIGHT, UPLIGHT AND GLARE (BUG) RATINGS, footnote 2.*

The Building Lighting light trespass illuminance is also analyzed with respect to the requirements of the CASP where the Project is located within the CASP district boundary. The CASP lighting requirements apply to the Project Alignment and Project Sites located north of W. College Street and east of Los Angeles State Historic Park west boundary. The Chinatown / State Park Station Project Site, and the Project Alignment within the Los Angeles State Historic Park are located within the CASP (See CASP Appendix D).

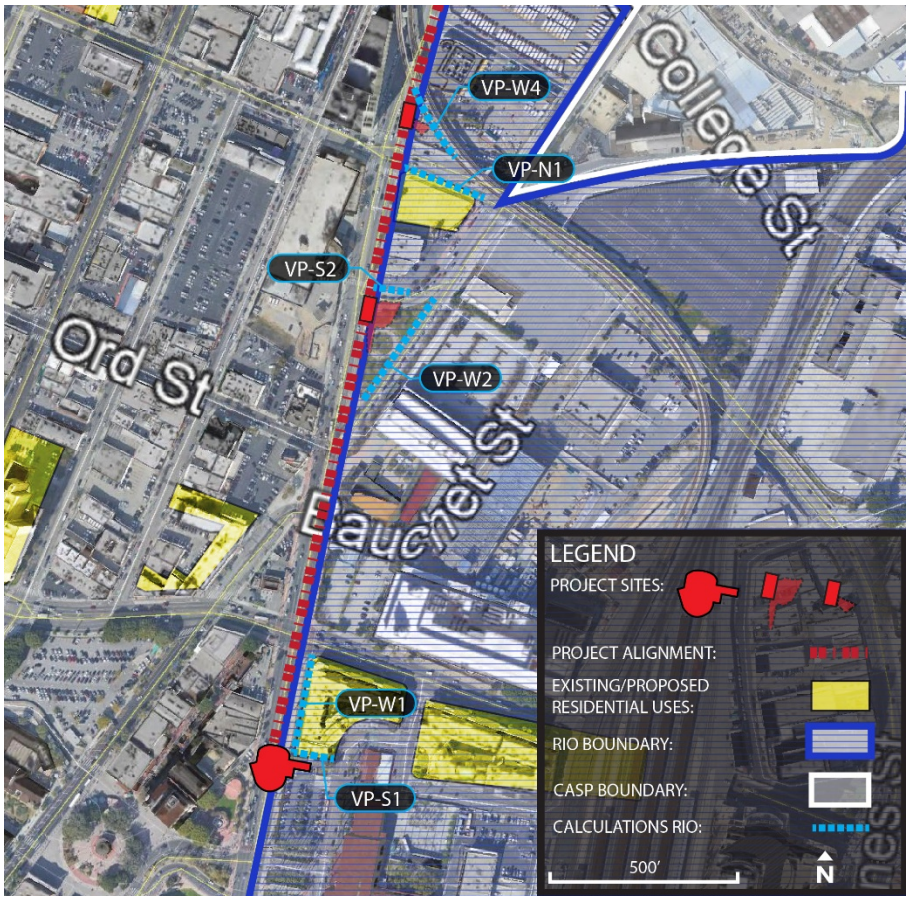

Figure 6: Calculations RIO

Therefore, this Study includes these Project Sites and the portion of the Project Alignment north of W. College St. to the west edge of the Los Angeles State Historic Park within the CASP analysis. The Project Alignment and Project Sites west and north of the Park are not within or adjacent to the CASP, therefore the CASP requirements do not apply. The CASP Exterior Lighting requirements stipulate maximum light trespass illuminance of 0.01 fc. within the CASP Greenway, which applies to the Los Angeles State Historic Park. However, the CASP exempts all architectural lighting and pedestrian lighting that does not have a light intensity greater than 60 watts. All the Project's Building Lighting is either architectural lighting or pedestrian lighting and the Project includes design features which limit the Building Lighting to less than 60 watts. Therefore all Building Lighting is exempt from the CASP criteria as per the exemptions noted above, and no further detailed analysis of light trespass illuminance is considered with respect to CASP.

The Building Lighting light trespass illuminance is also analyzed with respect to the requirements of the RIO where the Project is located within the RIO District. The RIO lighting threshold applies to the Project Alignment and Project Sites located south of W. College Street and east of N. Alameda St. Specifically, a portion of the Alameda Station, the Alameda Tower, the Alpine Tower, and the Project Alignment from W. College Street to Alameda Station are located within the RIO. Therefore, this Study analyzes these locations for compliance with the RIO lighting requirements. The Project Alignment and Project Sites north of W. College St. are not within or adjacent to the RIO and therefore the RIO does not apply. The RIO defines the maximum light trespass illuminance at the Project property line as 0.20 fc, and at 15 feet beyond the Project property line as 0.01 fc. The RIO boundary in the vicinity of the Project is defined by RIO map 6 of 9 (Appendix C). Figure 6 illustrates the Project Sites within and adjacent to the RIO and the locations of the horizontal and vertical illuminance calculations included in the RIO analsyis at the Project property line. The vertical calculation planes are labeled "Calculations RIO" in Figure 6, and extend from grade to 200 feet above grade. Each labeled RIO vertical calculation location includes an additional calculation 15 feet beyond the property line, from grade to 200 feet above grade, not illustrated in Figure 6. In Section 8 figures are provided that show the calculation planes for each Project Site.

The horizontal and vertical illuminance calculation planes analyze the lighting at locations near the Project Site boundaries, which will be greater than the illuminance at any location more distant from the Project. 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 light source. More distant residential properties or other sensitive sites will receive much less light from the Project due to the increased distance. Therefore, the Project will produce a less significant light trespass impact on residential properties or other sensitive sites more distant from the review locations identified in Figures 4, 5 and 6.

6.2.b Project Glare Analysis

Glare from the Project is evaluated at adjacent residential properties and for drivers on adjacent streets and freeways. Project Building Lighting and Sign Lighting luminance is evaluated by the contrast ratio, which equals the maximum Project luminance divided by the measured average existing luminance within the field of view as measured at the Monitoring Sites identified in the field survey of existing conditions (see Section 7 below). Contrast ratios greater than 30:1 are considered potential glare conditions.

Luminance is independent of distance for large 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 by a luminance meter 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. The Project includes signs with a range of sizes. The Conceptual Sign Plan includes signs with wide variations in dimensions and area, and a range of viewing distances up to 1000 feet. The luminance of the largest signs within the Project are analyzed with a constant luminance of 300 cd/m^2 for all viewing distances up to 1,000 feet.

In addition, the potential roadway glare impacts are analyzed with respect to the Project luminance compliance with the California Vehicle Code requirements for night, twilight, and day conditions.

7. Existing Site Analysis

This Study analyzes the following Project Site(s) locations: Alameda Station; Alameda Tower; Alpine Tower; Chinatown / State Park Station; Broadway Junction; Stadium Tower; Dodger Stadium Station; and a Typical Cabin along the Project Alignment. The Project includes lighting for buildings, towers, sites, and cabins (Building Lighting) as described in Appendix A and illuminated signs (Sign Lighting) as described in Appendix B. This analysis represents a conservative evaluation of the potential for offsite light trespass illuminance and glare from the Project. Existing lighting conditions within and surrounding the Project consist of exterior parking lot lighting, exterior lighting utilized for security and safety, roadway lighting, and lighting at adjacent residential and commercial properties.

7.1 Existing Conditions Monitoring Sites

Monitoring sites are utilized to describe and evaluate the existing lighting conditions at and surrounding the Project to determine the maximum potential impacts that may result from light or glare onto adjacent sensitive sites surrounding the Project. All Monitoring Site locations are within close proximity of the Project and have views of the Project. Monitoring Sites may also be existing residential properties, or may be located adjacent to existing residential properties. The following criteria were used to select potential Monitoring Site locations:

Project Light Visibility – Monitoring sites are analyzed that provide direct view of the areas of greatest light intensity from the Project.

Proximity – Monitoring sites at the least distance to the Project are analyzed. These locations are selected because light intensity decreases exponentially with distance. Locations at a greater distance from the Project will experience less light intensity than nearby locations.

Table 1: Existing Conditions Monitoring Site Locations and Distance to Project Sites

Monitoring Site	Distance to Project Site (feet)	Description	Location	Representative Sensitive Uses
M1	10	Broadway Junction Project Site, 10 ft. northeast of Project Site's northeastern boundary	438 Savoy St. north of N. Broadway at east side of Bishops Rd. at apartment parking spaces northeast of Broadway Junction Project Site	Representative for sensitive use properties north of Broadway Junction Project Site
M2	45	Broadway Junction Project Site, 45 ft. north of Project Site's northern boundary	455 Savoy St. north corner of Bishops Rd. and Savoy St. north of the Broadway Junction Project Site	Representative for sensitive use properties northwest of Broadway Junction Project Site
M3	127	Broadway Junction Project Site, 127 ft. northeast of Project Site's northeastern boundary	425 Savoy St. east of Bishops Rd., north of N. Broadway, northeast of Broadway Junction Project Site	Representative for sensitive use properties northeast of Broadway Junction Project Site
M4	132	Chinatown/ State Park Station Project Site, 132 ft. southwest of Project Site's southern boundary	Northeast of W. College St. at N. Spring St. east right of way	Representative for sensitive use properties south and east of Chinatown / State Park Station Project Site
M5	190	Alameda Station Project Site, 190 ft. northeast of Project Site's northern boundary	Approximately 31 feet south of N. Alameda St., and W Cesar Estrada Chavez Ave. intersection	Representative for sensitive use properties north and east of Alameda Station Project Site.
M6	35	Alameda Station Project Site, 35 ft. east of Project Site's eastern boundary	East of N. Alameda St. at south boundary of Mozaic Apartments within the Union Station parking lot.	Representative for sensitive use properties northeast of the Alameda Station Project Site.
M7	70	Alpine Tower Project Site, 70 ft. west of Project Site's western boundary	Northwest corner of N. Alameda St. and Alpine St. at the southeast corner of Metro @ Chinatown Senior Living Lofts	Representative for sensitive use properties to the west of Alpine Tower Project Site.
M8	0	Broadway Junction Project Site, 0 ft. from the Project Site's northeastern boundary	Northeast corner of the Broadway Junction Project Site.	Representative for sensitive use properties to the northeast of the Broadway Junction Project Site.

Figure 7 shows the Project Alignment and Project site locations, the Monitoring Site locations, and the properties surrounding the Project. The Project is shaded red; solid red indicates stations, junctions, and towers; dashed red line indicates the Project Alignment and the path of travel for the cabins. Monitoring Site locations were selected for observation and field lighting measurements to evaluate the views to the Project from adjacent residential properties to determine the extent and intensity of existing light sources within and surrounding the Project. The Monitoring Sites are within the public right of way, adjacent to residences, or at a Project site property line.

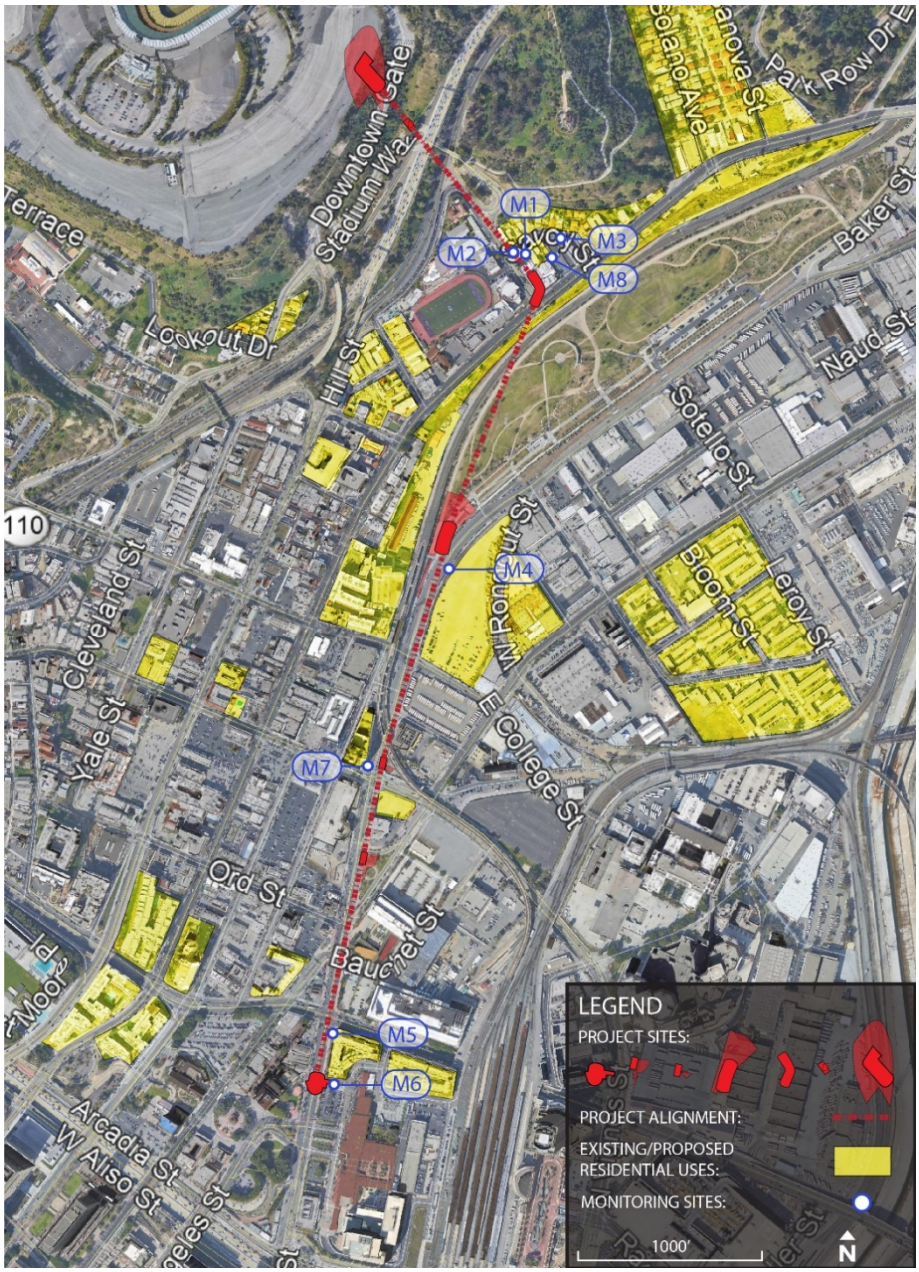

Figure 7: Monitoring Sites

The Monitoring Site locations are representative of the view to the Project from the vicinity of residential properties surrounding the Project to the north, south, east, and west. Light degrades rapidly relative to the distance from the light source (see Inverse Square Law, Section 3 above). Therefore, more distant residential sites farther away from the Project will receive substantially less light than the Monitoring Sites. Table 1 summarizes the distances from the Monitoring Site to the adjacent or nearby Project Station, Junction or Tower. The distance from the Project to the Monitoring Sites varies considerably, from 0 feet to 190 feet.

The analysis within this Study utilizes Monitoring Sites which are located near a residential use, that are less than 200 feet from the Project, and that have a direct view to a Project Site. These Monitoring Sites are used to determine the extent of existing lighting conditions and to evaluate the Project light trespass and glare impacts.

Monitoring Sites are located adjacent to the Alameda Station, the Alpine Tower, the Chinatown / State Park Station, and the Broadway Junction, where residential use properties are close to the Project Sites.

Monitoring Sites are not included adjacent to the Dodger Stadium Station, the Stadium Tower, or the Alameda Tower. The Dodger Stadium site is more than 900 feet from the nearest residential zoned property, more than four times the distance from the most distant adjacent residential property analyzed near the Alameda Station. The Stadium Tower site is more than 500 feet from the nearest residential zoned property, five times the distance from the most distant adjacent

residential property analyzed near the Alpine Tower site. The Alameda Tower is more than 200 feet from an adjacent residential property with an elevated Los Angeles Metro rail track and existing building separating the properties.

The data from the Monitoring Sites is utilized to determine any possible impact from the Dodger Stadium Project Site, the Stadium Tower Site, and the Alameda Tower site, which are far more distant from residentially zoned properties than the other Project Sites. Accordingly, impacts at these locations would be less than those at the Monitoring Sites. The Monitoring Site locations are illustrated at Figure 7.

7.2 Monitoring Site Criteria

As established in Section 1.3, the following factors were used to assess the existing conditions at each Monitoring Site:

Table 2: Existing Conditions Lighting Criteria at Monitoring Sites

Criteria	Metric	Procedure
Light Trespass - Illuminance	Measured illuminance (footcandle) at each Monitoring Site	Horizontal and vertical illuminance measurements at each Monitoring Site with Minolta illuminance meter.
Glare – Luminance Contrast Ratio	Measured luminance (cd/m^2) at each Monitoring Site within field of view to the Project Site from the Monitoring Site; Observed existing conditions	Luminance measurements at each Monitoring Site with Minolta luminance meter. Observed conditions with respect to the view to the Property from the Monitoring Site in terms of visibility of the Project, light sources, lighted surfaces, and illuminated signs.

7.3 Monitoring Site Survey Data

The observations and measurement of existing lighting conditions within and surrounding the Project Sites are summarized below in relation to the evaluation factors established in Section 5, Significance Threshold. The existing lighting within the Project Sites include a wide range of lighting for safety and security. Lighting within each Project Site and within adjacent commercial properties and roadway lighting on the adjacent right of way contribute to the ambient lighting conditions at all Monitoring Sites. Specifically, the existing lighting conditions at the Alameda Station Project Site include streetlights along N. Alameda Street and light poles within the Union Station surface parking lot. The Alameda Tower Project Site is surrounded by street lights along N. Alameda Street, Alhambra Avenue, and N. Main Street which uniformly illuminate the Project Site. The Alpine Tower Project Site includes parking lot lights within the property and adjacent street lights along Alpine Street and N. Alameda Street. The existing lighting conditions at the Chinatown / State Park Station Project Site include streetlights along N. Spring Street, LA Metro light poles at the entrance to the Chinatown Metro Station and light poles within the Los Angeles State Historic Park. The existing lighting conditions at the Broadway Junction Project Site include a surface parking lot illuminated by exterior light poles, perimeter security lighting, and street lights along N. Broadway, Bishops Road, and Savoy Street. The Stadium Way Project Site is adjacent to Stadium Way and the entrance drive to Dodger Stadium, which both include street lights. The Stadium Station Project site includes existing parking and security lighting for Dodger Stadium.

Illuminance:

Table 3 summarizes the average measured Illuminance at the Monitoring Sites.

Measured horizontal illuminance greater than 2.0 fc was recorded at M8 at 33.40 fc, which is high illuminance. Measured horizontal illuminance less than 2.0 fc and above 1.0 fc which is medium illuminance, was measured at M4 at 1.11 fc and at M7 at 1.07 fc. Measured horizontal illuminance less than 1.0 fc was recorded at Monitoring Sites M1, M2, M3, M5 and M6. The lowest horizontal illuminance was recorded at Monitoring Site M3 at 0.04 fc.

Measured vertical illuminance greater than 2.0 fc was recorded at M8 at 2.69 fc, which is high illuminance. Measured vertical illuminance less than 2.0 fc and greater than 1.0 fc, which is medium illuminance, was measured at M7 at 1.42 fc and at M5 at 1.17 fc. Measured vertical illuminance less than 1.0 fc was recorded at Monitoring Sites M1, M2, M3, M4 and M6. The lowest vertical illuminance was recorded at Monitoring Site M3 at 0.10 fc.

Table 3: Measured Illuminance (fc) at Monitoring Sites

Monitoring Site	Illuminance (fc)		Adjacent Project Site
	Horizontal	Vertical	
M1	0.15	0.23	Broadway Junction Project Site
M2	0.21	0.25	Broadway Junction Project Site
M3	0.04	0.10	Broadway Junction Project Site
M4	1.11	0.65	Chinatown / State Park Station Project Site
M5	0.53	1.17	Alameda Station Project Site
M6	0.07	0.32	Alameda Station Project Site
M7	1.07	1.42	Alpine Tower Project Site
M8	33.40	2.69	Broadway Junction Project Site

Contrast/Glare: Table 4 summarizes the measured luminance at each Monitoring Site along with the contrast ratio and qualitative evaluation of the existing luminance.

The evaluation of High, Medium and Low Contrast describes the perception of how bright a visible object appears in comparison to the surrounding objects within any given field of view. The "luminance ratio" is the ratio of the highest Measured 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. "High," "Medium," and "Low" contrast are terms used to describe effect of the contrast ratios (the ratio of peak measured luminance to the average within a field of view) of greater than 30:1, between 10:1 and 30:1, and below 10:1, respectively. Luminance contrast ratios above 30:1 are generally uncomfortable for the human eye to perceive. High Contrast indicates a potential Glare condition.

In Section 3 below the notes for each Monitoring Site include observations of the brightness of visible light sources and surrounding illuminated surfaces within the field of view to the Project from the Monitoring Sites, and the visibility of the Project site within the field of view.

Table 4: Measured Luminance, (cd/m^2) at Monitoring Sites

Monitoring Site	Luminance (cd/m^2)		Contrast Ratio (Max / Average)	Adjacent Project Site	Evaluation
	Average	Maximum			
M1	193.0	3378.0	18:1	Broadway Junction Project Site	Medium Contrast Ratio
M2	139.9	3083.0	22:1	Broadway Junction Project Site	Medium Contrast Ratio
M3	132.3	1611.0	12:1	Broadway Junction Project Site	Medium Contrast Ratio
M4	58.1	1324.0	23:1	Chinatown / State Park Station Project Site	Medium Contrast Ratio
M5	254.3	3751.0	15:1	Alameda Station Project Site	Medium Contrast Ratio
M6	384.7	7038.0	18:1	Alameda Station Project Site	Medium Contrast Ratio
M7	304.7	3436.0	11:1	Alpine Tower Project Site	Medium Contrast Ratio
M8	224.8	2944.0	13:1	Broadway Junction Project Site	Medium Contrast Ratio

The highest maximum luminance was recorded at Monitoring Site M6 with 7038 cd/m^2, while the lowest maximum luminance was recorded at Monitoring Site M4 at 1324 cd/m^2. The highest average luminance was recorded at Monitoring Site M6 at 384.7 cd/m^2, while the lowest average luminance was recorded at Monitoring Site M4 at 58.1 cd/m^2. The calculated contrast ratio at all Monitoring Sites is medium contrast, greater than 10:1, less than 30:1.

7.3.a Monitoring Site M1:

Monitoring Site M1 is located at 438 Savoy St. north of the Broadway Junction Project Site east of Bishops Rd., near the northeastern Project Site boundary. This location is used to evaluate sensitive use properties to the north of the Broadway Junction Project Site. The distance to the Project Site's northeastern boundary is approximately 10 feet. Prominent light sources visible within the field of view to the Project Site include residential wall light. There is skyglow from the urban areas to the east of the Project Site.



Figure 8: M1 day view May 21, 2021, 10:34 AM



Figure 9: M1 night view May 20, 2021, 8:36 PM

7.3.b Monitoring Site M2:

Monitoring Site M2 is located at 455 Savoy St. at the north corner of the Bishops Rd. and Savoy St. intersection, to the north of the Broadway Junction Project Site. This location is used to evaluate sensitive use properties to the northwest of the Broadway Junction Project Site. The distance to the Project Site's north boundary is approximately 45 feet. Prominent light sources visible in the field of view from Monitoring Site M2 to the Project Site include city street light poles and skyglow from school and commercial properties to the south and east.



Figure 10: M2 day view November 16, 2020, 11:06 AM

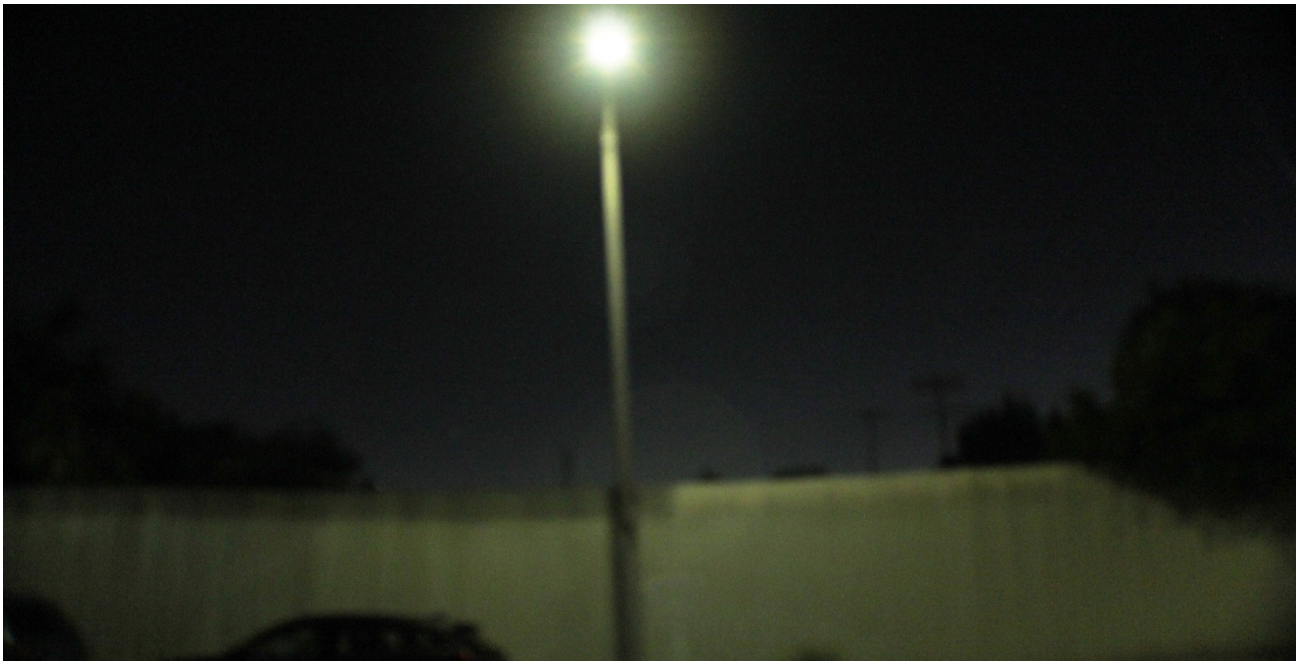

Figure 11: M2 night view November 18, 2020, 5:50 PM

7.3.c Monitoring Site M3:

Monitoring Site M3 is located at 425 Savoy St., east of Bishops Rd. and north of N. Broadway, northeast of the Broadway Junction Project Site. This location is used to evaluate sensitive use properties to the northeast of the Broadway Junction Project Site. The distance to the Broadway Junction Project Site northeastern boundary is approximately 127 feet. Prominent light sources visible in the field of view from M3 to the Project Site include parking and security lights within the Project Site, city street light poles, security lighting at adjacent residential properties, illuminated buildings in the distance, and skyglow from the urban areas to the south and west.



Figure 12: M3 day view November 16, 2020, 11:08 AM



Figure 13: M3 night view November 18, 2020, 6:03 PM

7.3.d Monitoring Site M4:

Monitoring Site M4 is located on N. Spring St. northeast of the W. College St. intersection on the east side of the N. Spring St right of way. This location is used to evaluate the sensitive use properties to the south and east of the Chinatown Station Project Site. The distance to the Chinatown / State Park Station Project Site southern boundary is approximately 132 feet. Prominent light sources visible in the field of view from M4 to the Chinatown / State Park Station Project Site include city street light poles, Metro Station and Park pedestrian light poles, and skyglow from urban areas to the north.



Figure 14: M4 night view November 18, 2020, 6:23 PM



Figure 15: M4 day view November 16, 2020, 11:15 AM

7.3.e Monitoring Site M5:

Monitoring Site M5 is located at approximately 31 feet south of the N. Alameda St., and Cesar E. Chavez Ave. intersection on the east side of the right of way. This location is used to evaluate the sensitive use properties to the north and east of the Alameda Station Project Site. The distance to the Alameda Station northern boundary is approximately 190 feet. Prominent light sources visible in the field of view from Monitoring Site M5 to the Project Site include city street lights, parking lot lighting at the west side of Alameda St., lighted buildings in the distance, and skyglow from urban areas to the south and west.



Figure 16: M5 day view November 16, 2020, 11:26 AM



Figure 17: M5 night view November 18, 2020, 6:45 PM

7.3.f Monitoring Site M6:

Monitoring Site M6 is located the east of the Alameda Station Project Site, within the Union Station surface parking, east of the N. Alameda St. right of way, at the south boundary of the Mozaic Apartments. This location is used to evaluate the sensitive use properties to the northeast of the Alameda Station Project Site. The distance to the Project Site's eastern boundary is approximately 35 feet. Prominent light sources visible in the field of view from Monitoring Site M6 to the Project Site include street light poles, parking light poles, lighted buildings, and skyglow from urban areas to the west.



Figure 18: M6 day view November 16, 2020, 11:23 AM



Figure 19: M6 night view November 18, 2020, 7:03 PM

7.3.g Monitoring Site M7:

Monitoring Site M7 is located at the northwest corner of N. Alameda St. and Alpine St. at the southeast corner of The Metro @ Chinatown Senior Living Lofts property. This location is used to evaluate the sensitive use properties to the west of the Alpine Tower Project Site. The distance to the Alpine Tower Project Site west property line is approximately 70 feet. Prominent light sources visible in the field of view from Monitoring Site M7 to the Project Site include city street lights, parking lot lights, lighted buildings, and skyglow from urban areas to the east.



Figure 20: M7 day view April 1, 2021 10:25 AM



Figure 21: M7 night view April 6, 2021, 8:28 PM

7.3.h Monitoring Site M8:

Monitoring Site M8 is located at the northeast corner of the Broadway Junction Project Site. This location is used to evaluate the sensitive use properties to the northeast of the Broadway Junction Project Site. The distance to the Broadway Junction Project Site northwest property line is approximately 0 feet. Prominent light sources visible in the field of view from Monitoring Site M8 to the Project Site include parking lot lights within the Broadway Junction Project Site.



Figure 22: M8 day view May 20, 2021 10:25 AM



Figure 23: M8 night view May 20, 2021, 8:28 PM

8. The Project Analysis

The Project would introduce new Building Lighting and Sign Lighting and as described in Section 2 and depicted in Appendix A and B.

The following criteria are used to evaluate the Project impacts with respect to light trespass and glare:

Project Building Lighting trespass illuminance must not exceed 2.0 fc at adjacent residential zoned property lines or adjacent sensitive sites. Project Signs trespass illuminance must not exceed 3.0 fc at adjacent residential zoned property lines or adjacent sensitive sites.

Project luminance visible from residential properties must be less than high contrast conditions, less than 30 to 1 contrast ratios.

Project luminance visible within 10 degrees from the driver's normal field of view must be less 500 fL and or less 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.

In addition, the analysis evaluates the Project's compliance with CALGreen, the CASP, and the RIO.

8.1 Project Light Trespass Illuminance Analysis

Project light trespass illuminance from Building Lighting and or Sign Lighting is evaluated by way of the calculated illuminance (fc) as per the methodology defined in Section 6, at the vertical and horizontal calculation plane locations where lighting is under review. As noted above, this Study evaluates light trespass illuminance as defined by LAMC at adjacent residential properties for both Building Lighting and Sign Lighting. Building Lighting is further evaluated for light trespass compliance with CALGreen, the CASP, and RIO at the Project property line, and for the RIO at 15 feet beyond the Project property line. Sign Lighting is exempt from the requirements of CALGreen, the RIO, and CASP.

This Study analyzes the proposed Project Building Lighting as described in Appendix A, which includes lighting required to meet California Building Code illumination requirements and to achieve target illuminance levels recommended by the IESNA for the transportation uses within the Project. The Project Lighting Concept is utilized to calculate Building Lighting trespass illuminance in this Study, with the calculation results presented in Tables below. Complete Building Lighting illuminance calculated data is presented in Appendix H.

This Study also analyzes the proposed Project Sign Lighting as described in Appendix B, which defines the Project Sign locations, dimensions, and orientation. The Project Signs are illuminated and operate at maximum luminance of 10,000 cd/m^2 during the day and 300 cd/m^2 at night, with a smooth transition from day maximum luminance to night maximum luminance beginning 45 minutes prior to sunset and concluding at sunset, and from night maximum luminance to day maximum luminance 45 prior to sunrise and concluding at sunrise. Sign Lighting is analyzed in this Study conservatively with all Project Signs operating at maximum luminance, all white. The Project Sign Concept is utilized to calculate Sign Lighting trespass illuminance in this Study, with the calculation results presented in Tables below. Complete Sign Lighting illuminance calculated data is presented in Appendix I.

Detailed analysis of light trespass and glare from Building Lighting and Sign Lighting is presented below.

8.1.a Light Trespass Illuminance Analysis – Building Lighting

The Project Building Lighting Concept in Appendix A is evaluated with respect to light trespass illuminance thresholds defined above in Section 5 with respect to LAMC Chapter 9, Article 3, Div. 1, Sec. 93.0117, CALGreen, the CASP, and the RIO, at the calculation locations described in Figures 4, 5, and 6.

These calculation locations represent the most significant potential areas of impact for light trespass and glare due to their adjacency to sensitive use sites. Sensitive use locations more distant from the Project Alignment or Project Sites will receive exponentially less illuminance due the inverse square law (see Section 3 above) and have far less visibility of any bright surface or light source within the Project. Therefore, this Study does not include detailed calculations or Monitoring Sites at locations surrounding the Dodger Stadium Station Project Site, the Stadium Tower Site, and the Alameda Tower

Site, which are not adjacent to residential use properties. In addition, neither the Dodger Stadium Station or the Stadium Tower are located within the RIO or CASP, and therefore not subject to their specific lighting regulations.

Table 5 presents a summary of the Building Lighting illuminance calculations at adjacent residential properties as required by LAMC, and as illustrated in Figure 4. The calculated illuminance evaluates compliance with the LAMC maximum light trespass illuminance 2.0 fc threshold. Complete calculation data is presented in Appendix H.

Table 5: Trespass Illuminance (fc) – Building Lighting at Residential Property Line, LAMC

Location	Vertical Plane	Illuminance (fc)		LAMC Analysis (2.0 fc threshold)
		Vertical Max	Horizontal Max	
Alameda Station	VP-E1	1.90	0.70	Less than threshold
	VP-S1	0.50	0.20	Less than threshold
	VP-W1	0.70	0.40	Less than threshold
Alameda Tower	VP-S3	0.00	0.00	Less than threshold
Alpine Tower	VP-E2	0.30	0.00	Less than threshold
	VP-N1	0.00	0.00	Less than threshold
Chinatown/State Park Station	VP-E4	0.60	0.20	Less than threshold
	VP-S4	0.80	0.00	Less than threshold
	VP-W3	0.80	0.20	Less than threshold
Broadway Junction	VP-S5	0.20	0.00	Less than threshold
	VP-S7	0.10	0.00	Less than threshold
	VP-W5	0.20	0.00	Less than threshold
	VP-N3	0.30	0.10	Less than threshold
Stadium Tower	None	0.005	0.00	Less than threshold
Dodger Stadium Station	None	0.018	0.00	Less than threshold

The calculated maximum light trespass illuminance varies from 0.0 fc at vertical planes VP-S3 and VP-N1 to a maximum of 1.90 fc at vertical plane VP-E1. These calculations confirm the Project Building Lighting will create light trespass illuminance less than the maximum of 2.0 fc at night at the adjacent residential uses and other sensitive use properties noted in Figure 4. The Project Building Lighting calculated horizontal light trespass illuminance is less than 2.0 fc at all analysis locations. Light trespass illuminance from the Project Building Lighting less than 2.0 fc will not create an impact at these adjacent sensitive use locations.

More distant locations farther away from the Project Alignment or Project Sites will receive much less light than the sites analyzed due to the inverse square law, and the exponential reduction of light intensity relative to distance. Residential sites more than 200 feet away from the Project, such as those sensitive sites at approximately 500 feet from the Stadium Tower will receive far less light than the locations 62 feet from the Project, such as adjacent to the Alpine Tower Site. The calculated maximum illuminance at VP-E2, 62 feet from the Alpine Tower, is 0.30 fc. The estimated light trespass illuminance from the Stadium Tower with similar lighting as the Alpine Tower, at 500 feet to the nearest residential use is calculated as follows: 0.30 fc x 1/ $(500/62)^2$= 0.005 fc. Similarly, the calculated maximum illuminance at VP-S4, 135 feet from the Chinatown/State Park Station is 0.80 fc. The estimated light trespass illuminance from the Dodger Stadium Station with similar lighting as the Chinatown/State Park Station, at 900 feet to the nearest residential use is calculated as follows: 0.80 fc x 1/ $(900/135)^2$= 0.018 fc. Therefore, the Project Building Lighting will not create a light trespass illuminance impact with respect to the LAMC.

Table 6: Trespass Illuminance (fc)- Building Lighting at Project Boundary, CALGreen

Location	Vertical Plane	Illuminance (fc)		CALGreen Analysis (0.74 fc threshold)
		Vertical Max	Horizontal Max	
Alameda Station	VP-E1	0.60	0.00	Less than threshold
	VP-S1	0.10	0.00	Less than threshold
	VP-W1	0.60	0.00	Less than threshold
Alameda Tower	VP-S2	0.10	0.00	Less than threshold
Alpine Tower	VP-E2	0.30	0.00	Less than threshold
	VP-N1	0.00	0.00	Less than threshold
Chinatown / State Park Station	VP-E4	0.10	0.00	Less than threshold
	VP-S4	0.40	0.00	Less than threshold
	VP-W3	0.10	0.00	Less than threshold
Broadway Junction	VP-S5	0.20	0.00	Less than threshold
	VP-S6	0.10	0.00	Less than threshold
	VP-W5	0.20	0.00	Less than threshold
	VP-N3	0.30	0.10	Less than threshold
Stadium Tower	None	0.30	0.00	Less than threshold
Dodger Stadium Station	None	0.60	0.00	Less than threshold

The Project Building Lighting Concept in Appendix A is further analyzed for compliance with the CALGreen light trespass requirements at the Vertical Calculation Planes as illustrated in Figure 5.

The CALGreen analysis within this Study includes all Project Building Lighting where the CALGreen code applies. Consistent with CalGreen, the CALGreen analysis does not include Project Building Lighting required for illumination to comply with ADA and to provide lighting for the streets and pedestrian access within the public right of way within the Project Sites because such lighting is exempt from CALGreen. The calculated light trespass illuminance data presented in Table 6 is analyzed with respect to the light trespass illuminance threshold defined by CALGreen of 0.74 fc.

The Project Building Lighting maximum calculated vertical illuminance varies from a minimum of 0.00 fc at vertical plane VP-N1 at the Alpine Tower to a maximum of 0.60 fc at Vertical Plane VP-E1 and VP-W1 at the Alameda Station. Therefore, the Project Building Lighting vertical light trespass illuminance is less than the 0.74 fc threshold defined by CALGreen at all analysis locations. The Project Building Lighting maximum calculated horizontal illuminance varies from a minimum of 0.00 fc at vertical planes VP-E1, VP-S1, VP-W1, VP-S2, VP-E2, VP-N1, VP-E4, VP-S4, VP-W3, VP-S5, VP-S6 and VP-W5, to a maximum at the Broadway Junction VP-N3 of 0.10 fc. The Project Building Lighting calculated horizontal light trespass illuminance is less than the 0.74 fc threshold defined by CALGreen at all analysis locations.

A detailed calculation analysis is not included in this Study for the Stadium Tower Project Site and Dodger Stadium project site as they are not adjacent to sensitive use sites for purposes of a CEQA analysis. Nevertheless, the Project is designed to comply with CALGreen and the Project Building Lighting Concept is similar to the Alameda Tower and Alpine Tower at the Stadium Tower Site and similar to the Alameda Station and Chinatown/State Park Station at the Dodger Stadium Site.

Therefore the light trespass from the Project at the Stadium Tower and Dodger Stadium Project Sites will be similar to and no greater than the calculated light trespass illuminance presented in Table 6. The maximum calculated illuminance at the Alameda and Alpine Tower sites are used for the analysis of the Stadium Tower Site at 0.30 fc, which is less than the threshold. The maximum calculated illuminance at the Alameda Station and Chinatown/State Park Station sites are used for the analysis of the Dodger Stadium Station at 0.60 fc, which is less than the threshold. The Therefore, the Project Building Lighting vertical and horizontal light trespass illuminance is less than the 0.74 fc threshold defined by CALGreen at all Project locations.

The Project Building Lighting Concept in Appendix A is further analyzed with respect to the City of Los Angeles Cornfield Arroyo Seco Specific Plan (CASP) and the River Overlay Improvement District (RIO) where these districts apply to portions of the Project as discussed in Sections 4 and 6 above. The Chinatown / State Park Station and the portion of the Project Alignment that extends along the western boundary of the Los Angeles State Historic Park fall within the CASP district boundary. The Project Lighting within the Chinatown / State Park Station Project site and within the Cabins as they travel along the Project Alignment are exempt from the CASP requirements as defined within the CASP in Chapter 2.3, Exterior Lighting, Section 2. Exemptions, paragraph 2.h "architectural lighting whether it is freestanding or attached to a building, provided the lighting does not exceed an intensity of 60 watts." and paragraph 2.i "Pedestrian lighting that does not have an intensity greater than 60 watts."[8] All the Project Building lighting is either architectural lighting or pedestrian lighting and the Project includes design features to limit exterior light fixtures to 60 watts or less. Therefore, the Project Building Lighting is exempt from the CASP requirements for light trespass illuminance at the Project site boundary, and no further analysis is required.

The Project Building Lighting Concept in Appendix A is further analyzed for light trespass illuminance at the Vertical Calculation Planes as illustrated in Figure 6 with respect to the RIO requirements defined above in Section 4. The RIO requirements apply to a portion of the Alpine Tower Site, the Alameda Tower Site, and the Alameda Station Project site and the eastern boundary of Project Alignment from south of W College Street to Alameda Station. The western boundary of the Alpine Tower, the Alameda Tower, and the Alameda Station are outside of the RIO and the RIO requirements do not apply. As noted above, the RIO requirements also do not apply to the Dodger Stadium Station, the Stadium Tower, the Broadway Junction Project site, the Chinatown / State Park Station and the Project Alignment from Dodger Stadium to the W. College Street.

The calculated light trespass illuminance data presented in Table 8 is analyzed with respect to the light trespass illuminance threshold defined by RIO, which requires exterior lighting not to exceed 0.20 fc at the Project boundary and not to exceed 0.01 fc at 15 feet beyond the Project boundary.

[8] *Appendix D, CASP page 2-51*

Table 7: Trespass Illuminance (fc) - Building Lighting at Project Boundary, RIO

Location	Vertical Plane	Illuminance (fc) at Project Boundary		Illuminance (fc) 15 ft beyond Boundary		RIO Analysis (0.20 fc threshold at Boundary, 0.01 fc at 15 ft beyond Boundary)
		Vertical Max	Horizontal Max	Vertical Max	Horizontal Max	
Alameda Station	**VP-S1**	0.50	0.20	0.40	0.20	Greater than RIO threshold
	VP-W1	0.80	0.50	0.70	0.30	Greater than RIO threshold
Alameda Tower	**VP-S2**	0.10	0.00	0.00	0.00	Less than RIO threshold
	VP-W2	0.00	0.00	0.00	0.00	Less than RIO threshold
Alpine Tower	**VP-N1**	0.00	0.00	0.00	0.00	Less than RIO threshold
	VP-W4	0.30	0.00	0.10	0.00	Greater than RIO threshold
Chinatown/State Park Station	**VP-E4**					RIO does not apply
	VP-S4					RIO does not apply
	VP-W3					RIO does not apply
Broadway Junction	**VP-S5**					RIO does not apply
	VP-S6					RIO does not apply
	VP-W5					RIO does not apply
	VP-N3					RIO does not apply
Stadium Tower	**None**					RIO does not apply
Dodger Stadium Station	**None**					RIO does not apply

The Project Building Lighting maximum calculated vertical illuminance at the Project boundary varies from a minimum of 0.00 fc at vertical planes VP-W2 at Alameda Tower and VP-N1 at the Alpine Tower to a maximum of 0.80 fc at Vertical Plane VP-W1 at the Alameda Station. The Project Building Lighting calculated vertical light trespass illuminance is greater than the 0.20 fc threshold defined by RIO at the Alameda Station vertical planes VP-S1 (0.50 fc) and VP-W1 (0.80 fc), and at the Alpine Tower vertical plane VP-W4 (0.30 fc). The Project Building Lighting maximum calculated horizontal illuminance varies from a minimum of 0.00 fc at vertical planes VP-S2, VP-W2, VP-N1, and VP-W4, to a maximum of 0.50 fc at VP-W1 at Alameda Station. The Project Building Lighting calculated horizontal light trespass illuminance is greater

than the 0.20 fc threshold defined by RIO at VP-W1 (0.50 fc) at the Alameda Station. The calculated horizontal illuminance at the Alameda Tower and Alpine Tower are less than the 0.20 fc threshold.

The Project Building Lighting maximum calculated vertical illuminance at 15 feet beyond the Project boundary varies from a minimum of 0.00 fc at vertical planes VP-S2 and VP-W2 at Alameda Tower, and VP-N1 at Alpine Tower, to a maximum of 0.70 fc at Vertical Plane VP-W1 at Alameda Station. The Project Building Lighting calculated vertical light trespass illuminance at 15 feet beyond the Project boundary is greater than the 0.01 fc threshold defined by RIO at the Alameda Station VP-S1 (0.40 fc) and VP-W1 (0.70 fc) and at Alpine Tower vertical plane VP-W4 (0.10 fc). The vertical planes 15 feet beyond VP-S1 and VP-W1 are within the existing Mozaic Apartments building.

The Project Building Lighting maximum calculated horizontal illuminance at 15 feet beyond the Project boundary is 0.00 fc at vertical planes VP-S2, VP-W2, VP-N1, and VP-W4. The Project Building Lighting calculated horizontal light trespass illuminance is greater than the 0.01 fc threshold defined by RIO at vertical planes VP-S1 (0.20 fc) and VP-W1 (0.3 fc) adjacent to the Alameda Station at the Mozaic Apartments. The vertical planes 15 feet beyond VP-S1 and VP-W1 are within the existing Mozaic Apartments building.

While the Project Building Lighting exceeds the RIO threshold it does not create a significant impact as discussed further below. The existing measured illuminance adjacent to Monitoring Site M6, 35 feet east of the Alameda Station Project site is presented above in Table 3. The measured existing vertical illuminance is 0.32 fc and the measured existing horizontal illuminance is 0.07 fc. Both existing vertical and horizontal illuminance at M6 are greater than the RIO threshold. The existing illuminance is appropriate to the Union Station parking lot and the adjacent N. Alameda St. right of way to provide lighting for safety and security. The increased illuminance from the Project Building Lighting at the Project property line is 0.50 fc at VP-S1 and 0.8 fc at VP-W1, and at 15 feet beyond the Project property line the maximum illuminance is 0.40 fc at 15 feet beyond VP-S1 and 0.70 fc at 15 feet beyond VP-W1. The increased illuminance at VP-S1 and VP-W1 is not substantially greater than the existing illuminance at M6 and M5. Furthermore, the calculated illuminance from the Project is evaluated at a location adjacent to the N. Alameda Street right of way, which is well illuminated for vehicular and pedestrian safety. Therefore, the increased illuminance will not create a significant lighting impact at the Alameda Station RIO boundary.

Similarly, Table 3 summarizes the measured existing illuminance adjacent to the Alpine Tower Project Site at Monitoring Site M7, 70 feet west of the Alpine Tower Project Site. The measured existing vertical illuminance is 1.42 fc and the measured existing horizontal illuminance is 1.07 fc. Both existing measured vertical and horizontal illuminance are greater than the RIO threshold for the Project boundary. The existing illuminance is appropriate to the N. Alameda right of way and the adjacent intersection. The increased illuminance from the Project Building Lighting at the Project property line is 0.00 fc at VP-N1 and 0.30 fc at VP-W4, and at 15 feet beyond the Project property line the maximum illuminance is 0.00 fc at 15 feet beyond VP-N1 and 0.10 fc at 15 feet beyond VP-W4. The increased illuminance at VP-N1 and VP-W4 is not substantially greater than the existing illuminance at Monitoring Site M7 adjacent to the Alpine Tower Site. The vertical illuminance at VP-W4 exceeds the RIO threshold of 0.20 fc maximum. However, there is no light trespass impact since VP-W4 is adjacent to the Metro Line (Gold) right of way which includes existing illuminance substantially greater than the RIO threshold (see Table 3 Monitoring Site M7). Therefore, there is no significant lighting impact at the Alpine Tower RIO boundary.

The areas where Project Building Lighting would exceed the RIO at the eastern boundaries of the Alameda Station Project site, the Alpine Tower site, and where the Cabins travel along the Project Alignment from W. College Avenue to Alameda Station are urban areas with existing lighting that exceeds the maximum illuminance defined by RIO. These urban areas require higher illuminance for safety and security. Furthermore the Alameda Project site, the Alpine Tower site and the Project Alignment along N. Alameda Street from S. College Street to the Alameda Station are more than 2,600 feet from the LA River, and therefore have no direct influence on the lighting within or adjacent to the LA River and the areas where Project lighting would exceed the RIO do not include natural habitat. In addition, the Project includes a proposed Overlay District or other similar legislative action to establish the land use regulations for the Project to ensure consistent implementation of development standards throughout the Project sites in recognition of the Project's unique characteristics, including unique opportunities for public benefits and unique constraints posed by the Project site's location which are not experienced by other sites. With approval of the Overlay District or other similar legislative action, which would include its own lighting standards, there would be no conflict with the RIO.

(1) Alameda Station Light Trespass Analysis (LAMC, CALGreen, RIO)

Project Building Lighting illustrated in Appendix A at the Alameda Station Project site is analyzed to determine the light trespass illuminance with respect to the LAMC, CALGreen and the RIO. The locations of the vertical calculation planes are identical for the LAMC and CALGreen illuminance analysis, at the Project Site boundary. The RIO boundary runs along the middle of Alameda Street with the eastern portions of the Alameda Station falling within the RIO district boundary and the western portions falling outside of the RIO district boundary. Therefore, only the light trespass at the east Project Property line is evaluated with respect to the RIO at vertical planes VP-S1 and VP-W1. Specifically, at the Alameda Station VP-E1 falls outside of the RIO and therefore is not analyzed for compliance with the RIO.

Vertical Plane VP-S1 corresponds to the south façade of the Mozaic Apartments to the east of N. Alameda St., and the north Project Site boundary and is the nearest residential use property. Vertical Plane VP-W1 aligns with the west façade of the Mozaic Apartments to the east of the Project Site property line and extending north to the intersection of Cesar E Chavez St. Vertical Plane VP-E1 is located at the east façade of the commercial properties at the western Project Site property line along the N. Alameda St. right of way, and extends north to Cesar E Chavez St. intersection (Figure 24). The RIO light trespass illuminance analysis occurs where the Alameda Project Site is within the RIO district boundary, at VP-S1 and VP-W1 (similar to LAMC and CALGreen), and at 15 feet beyond VP-S1 and VP-W1.

As noted above, the maximum calculated horizontal and vertical light trespass illuminance at the vertical calculation plane locations surrounding the Alameda Station does not exceed the LAMC threshold of 2.0 fc. The horizontal and vertical light trespass illuminance at the adjacent vertical planes also does not exceed the CALGreen threshold of 0.74 fc (Table 6).

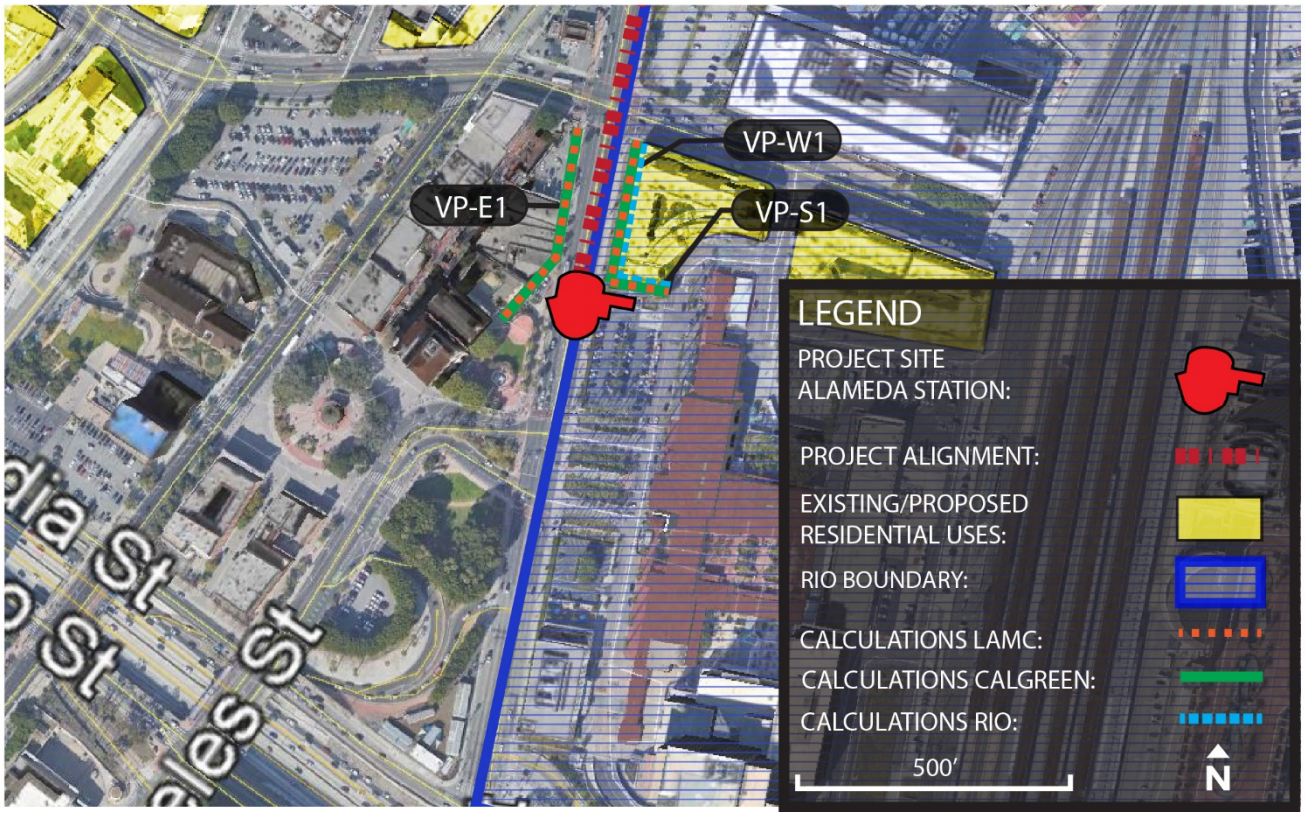

Figure 24: Alameda Station Project Site

The horizontal and vertical light trespass illuminance at VP-S1 and VP-W1 exceeds the RIO threshold of 0.20 fc maximum. The light trespass illuminance at 15 feet beyond VP-S1 and VP-W1 also exceeds the RIO threshold of 0.01 fc. While the Project light trespass is greater than the RIO requirements, there is no light trespass impact since the locations adjacent to the Alameda Station Project site include existing illuminance substantially greater than the RIO threshold for safety and security within the existing Union Station parking lot and along the N. Alameda Street right of way. Furthermore, at 15

feet beyond VP-S1 and VP-W1 the calculated vertical plane is within the existing building at the Mozaic Apartments. The Project light trespass within the Mozaic Apartments at these locations will be reduced by the solid walls and reduced at the windows by the glass transmission coefficient. The areas where Project Building Lighting would exceed the RIO do not include natural habitat.

In addition, the Project includes a proposed Overlay District or other similar legislative action to establish the land use regulations for the Project to ensure consistent implementation of development standards throughout the Project sites in recognition of the Project's unique characteristics, including unique opportunities for public benefits and unique constraints posed by the Project site's location which are not experienced by other sites. With approval of the Overlay District or other similar legislative action, which would include its own lighting standards, there would be no conflict with the RIO

Therefore, Project Building Lighting at the Alameda Station will not create a light trespass impact with respect to LAMC, or CALGreen, or the RIO.

(2) Alameda Tower Light Trespass Analysis (LAMC, CALGreen, RIO)

Project Building Lighting illustrated in Appendix A at the Alameda Tower Project site is analyzed to determine the light trespass illuminance with respect to the LAMC, CALGreen, and RIO.

Calculation Plane VP-S3 is located at the south residential property line of the proposed residential use property at the southeast corner of the N. Alameda St. and Alpine St. intersection (Figure 25). This residential property is the nearest sensitive receptor to the Alameda Tower Project site. Therefore, calculations at this location are used to evaluate the light trespass illuminance at the nearest residential property as per LAMC. The calculated horizontal and vertical illuminance at Vertical Plane VP-S3 is 0.00 fc, which is less than 2.0 fc LAMC threshold.

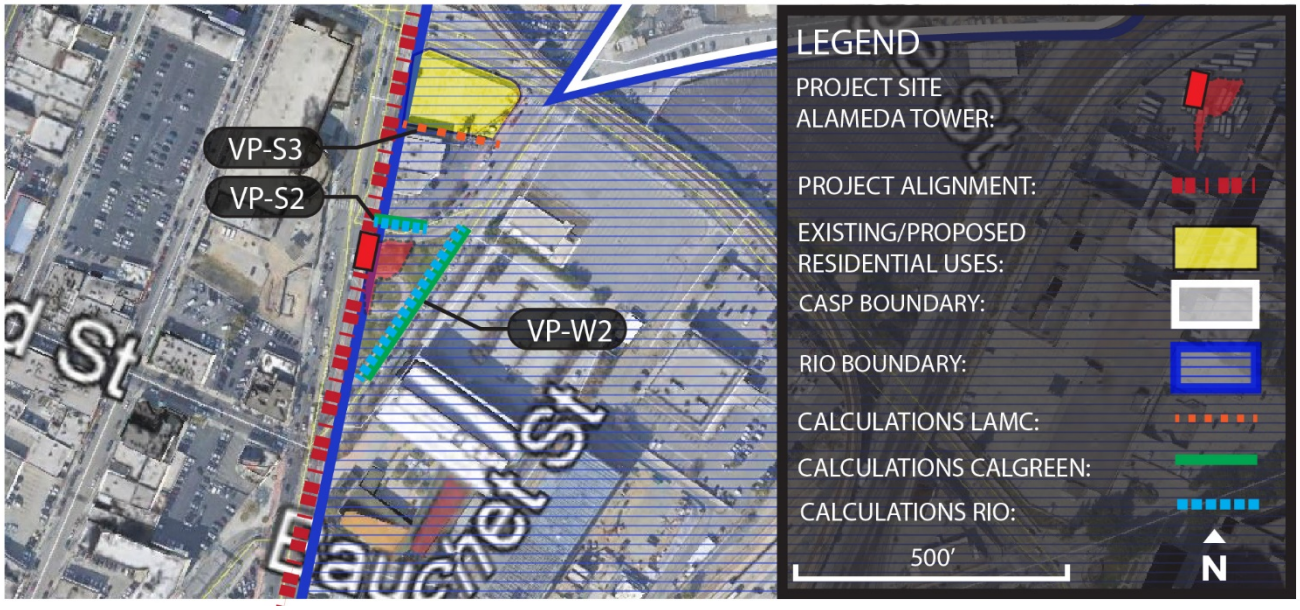

Figure 25: Alameda Tower Project Site

Furthermore, the Alameda Tower Building lighting is evaluated with respect to compliance with the CALGreen threshold of 0.74 fc at the center line of Alhambra Ave to the north of the Alameda Tower Project Site (VP-S2). The maximum calculated light trespass illuminance at VP-S2 is 0.10 fc which is less than the CALGreen threshold of 0.74 fc. The light trespass illuminance will be similar at the west and south Alameda Tower Project site boundary, and less than the CALGreen threshold of 0.74 fc.

A portion of the Alameda Tower Project site is located within the RIO. The RIO light trespass illuminance analysis includes calculations at the north and west Project Site boundaries at VP-S2 and VP-W2, and at 15 feet beyond the VP-S2 and VP-W2. The Alameda Tower west Project site boundary extends within the N. Alameda Street right of way and beyond the RIO boundary, and is therefore not included in the RIO analysis. The Project Building Lighting calculated vertical

illuminance is 0.10 at VP-S2, horizontal illuminance is 0.00 at VP-S2, and horizontal and vertical illuminance is 0.00 at VP-W2. The light trespass illuminance at VP-S2 and VP-W2 are less than the RIO threshold of 0.20 fc maximum at the Project boundary. The Project Building Lighting calculated vertical and horizontal illuminance is 0.00 fc at 15 feet beyond VP-S2 and VP-W2. Therefore, the VP-S2 and VP-W2 are less than the RIO threshold of 0.01 fc at 15 feet beyond the Project boundary.

Therefore, Project Building Lighting at the Alameda Tower will not create a light trespass impact with respect to LAMC, or CALGreen, or the RIO.

(3) Alpine Tower Light Trespass Analysis (LAMC, CALGreen, RIO)

Project Building Lighting illustrated in Appendix A at the Alpine Tower Project site is analyzed to determine the light trespass illuminance with respect to the LAMC, CALGreen, and RIO.

Calculation Plane VP-E2 is located at the east façade of the existing residential property at the northwest corner of the N. Alameda St. and Alpine St. intersection. Calculation Plane VP-N1 is located at the north façade of the proposed residential use property at the southeast corner of the N. Alameda St. and Alpine St. intersection. Calculation Plane VP-W4 is located at the north property line along the Los Angeles Metro right of way (Figure 26).

The LAMC analysis of light trespass illuminance from the Project Building Lighting at the nearest residential property indicates the maximum calculated vertical illuminance at VP-E2 is 0.30 fc, and maximum horizontal illuminance is 0.00. The maximum calculated vertical and horizontal illuminance at VP-N1 is 0.00 fc. The calculated light trespass illuminance at VP-N1 and VP-E2 is less than 2.0 fc LAMC threshold.

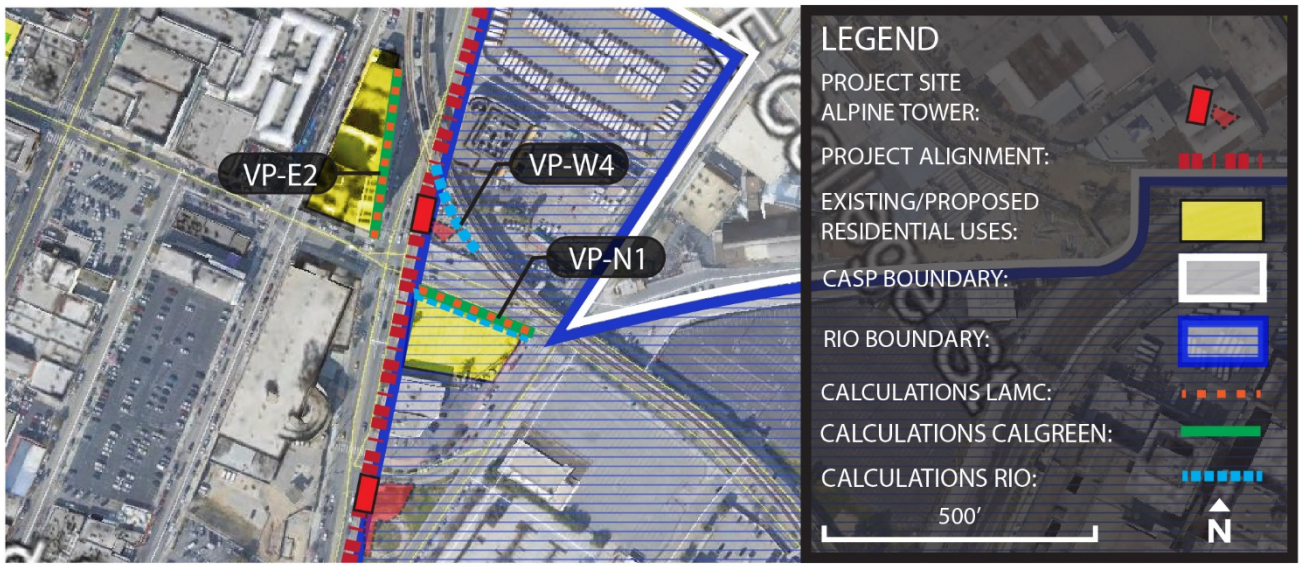

Figure 26: Alpine Tower Project Sites

Furthermore, the Alpine Tower Building Lighting is evaluated with respect to CALGreen threshold of 0.74 fc. The CALGreen analysis utilizes the same vertical plane locations as the LAMC analysis, labeled VP-N1 and VP-E2. The calculated maximum calculated vertical illuminance at VP-E2 is 0.30 fc, and maximum horizontal illuminance is 0.00. The maximum calculated vertical and horizontal illuminance at VP-N1 is 0.00 fc. The calculated light trespass illuminance at VP-N1 and VP-E2 is less than the CALGreen threshold of 0.74 fc.

The RIO light trespass illuminance threshold is analyzed at the south and east Alpine Tower Project site boundaries where the Project is within the RIO district, at VP-N1 and VP-W4. The Alpine Tower Project site extends within the N. Alameda Street right of way to the west of the RIO boundary. Therefore the Alpine Tower Project site west boundary is not a part of the RIO analysis. The vertical and horizontal light trespass illuminance at VP-N1 is 0.00 fc. The vertical light trespass illuminance at VP-W4 is 0.30 fc and the horizontal light trespass illuminance at VP-W4 is 0.00 fc. The vertical illuminance at VP-W4 exceeds the RIO threshold of 0.20 fc maximum. However, there is no light trespass impact since VP-W4 is

adjacent to the Metro Line (Gold) right of way which includes existing illuminance substantially greater than the RIO threshold (see Table 3 Monitoring Site M7). Therefore, there is no light trespass impact at the Alpine Tower Project RIO boundary.

The RIO light trespass illuminance threshold is also analyzed at 15 ft. beyond the south and east Project Site boundaries where the Project is within the RIO district, at VP-N1 and VP-W4. The vertical and horizontal light trespass illuminance at 15 feet beyond VP-N1 is 0.00 fc, which is less than the RIO threshold of 0.01 fc maximum. The vertical illuminance at 15 ft beyond VP-W4 is 0.10 fc, which exceeds the RIO threshold of 0.01 fc. The horizontal light trespass illuminance at 15 ft beyond VP-W4 is 0.00 fc which is below the RIO threshold. The Project Building Lighting at VP-W4 results in vertical illuminance of 0.10 fc, greater than the RIO threshold of 0.01 fc. However, there is no light trespass impact since VP-W4 is adjacent to the Metro L Line (Gold) right of way which includes existing illuminance substantially greater than the RIO threshold as noted above (see Table 3 Monitoring Site M7). Therefore, there is no light trespass impact at 15 feet beyond the Alpine Tower Project site RIO boundary.

Furthermore, the areas where Project Building Lighting would exceed the RIO do not include natural habitat and are located more than 2,600 feet from the Los Angeles River. In addition, the Project includes a proposed Overlay District or other similar legislative action to establish the land use regulations for the Project to ensure consistent implementation of development standards throughout the Project sites in recognition of the Project's unique characteristics, including unique opportunities for public benefits and unique constraints posed by the Project site's location which are not experienced by other sites. With approval of the Overlay District or other similar legislative action, which would include its own lighting standards, there would be no conflict with the RIO.

Therefore, Project Building Lighting at the Alpine Tower will not create a light trespass impact with respect to LAMC, or CALGreen, or the RIO.

(4) Chinatown / State Park Station Light Trespass Analysis (LAMC, CALGreen, CASP)

Project Building Lighting illustrated in Appendix A at the Chinatown / State Park Station Project site is analyzed to determine the light trespass illuminance with respect to the LAMC, CALGreen, and the CASP. The northern portion of the Chinatown / State Park Station is located within the CASP's Greenway District.

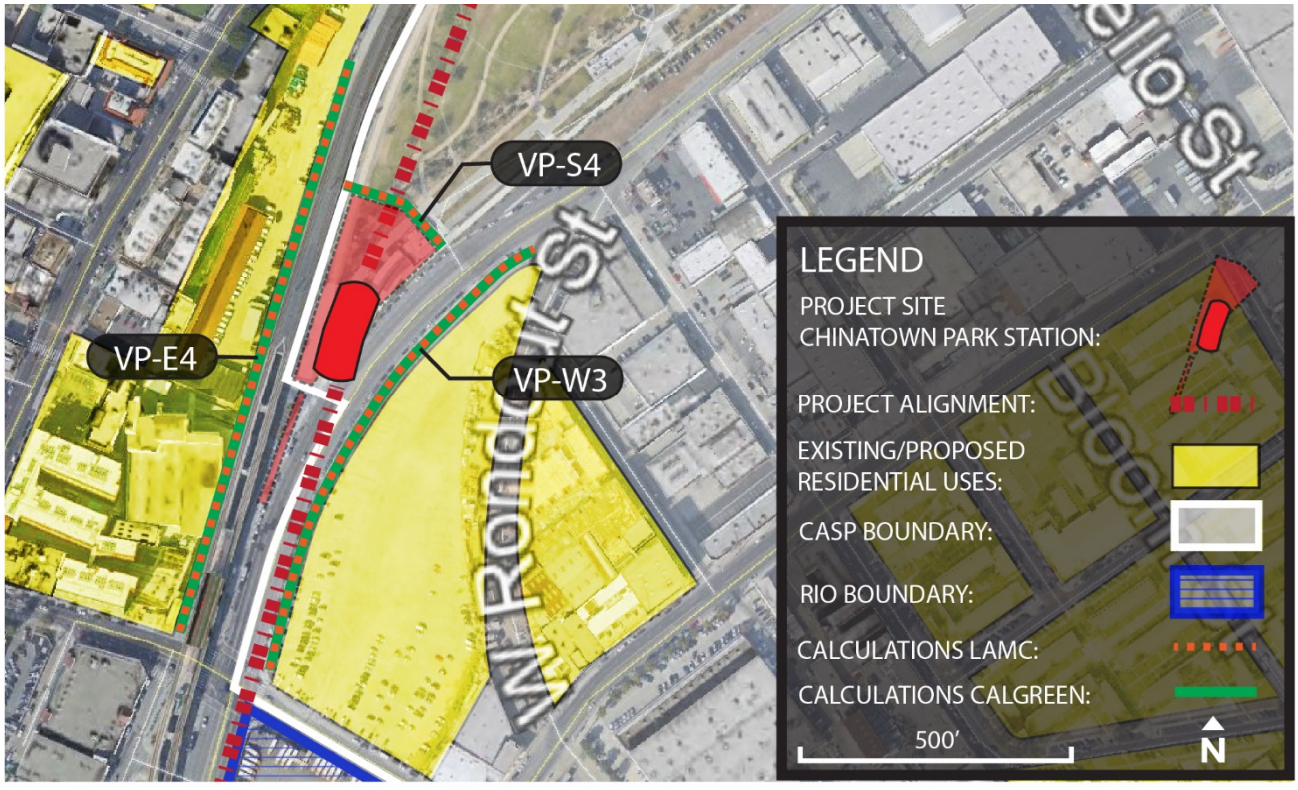

Figure 27: Chinatown/State Park Station Project Site

Calculation Planes VP-W3 at the N. Spring St. right of way eastern boundary, Vertical Plane VP-E4 at the western boundary of the Metro L Line (Gold) right of way, and VP-S4 at the north Project Site boundary (Figure 27) are the locations where light trespass illuminance is evaluated with respect to LAMC. The maximum calculated vertical illuminance at Vertical Planes VP-E4 is 0.60 fc, at VP-S4 is 0.80 fc, and at VP-W3 is 0.80 fc. The maximum calculated vertical light trespass illuminance is less than 2.0 fc at all locations analyzed. The maximum calculated horizontal illuminance at VP-E4 is 0.20 fc, at VP-S4 is 0.00 fc, and at VP-W3 is 0.20 fc. The maximum calculated horizontal light trespass illuminance is less than 2.0 fc at all locations analyzed. Therefore, the Project Building Lighting at the Chinatown / State Park Station will not exceed the LAMC threshold of 2.0 fc for light trespass.

The Chinatown / State Park Station Building Lighting is also evaluated with respect to the CALGreen threshold of 0.74 fc. Vertical Planes VP-E4, VP-S4, and VP-W3 are coincident with the locations used for the LAMC evaluation above. For the CALGreen analysis, the maximum calculated vertical light trespass illuminance at VP-E4 is 0.10 fc, VP-S4 is 0.40 fc, and at VP-W3 is 0.10 fc. The maximum calculated horizontal light trespass illuminance at VP-E4 is 0.00 fc, VP-S4 is 0.00 fc, and at VP-W3 is 0.00 fc. Therefore, the maximum calculated illuminance is less than the CALGreen threshold of 0.74 fc at all vertical plane locations.

The CASP light trespass illuminance threshold does not apply to the Project since all Project Building Lighting is less than 60 watts and complies with Exception 2.h and 2.i of the CASP. Therefore, there is no light trespass impact at the Project boundary with respect to the CASP.

Therefore, Project Building Lighting at the Chinatown / State Park Station will not create a light trespass impact with respect to LAMC, CALGreen, or CASP.

(5) Broadway Junction Light Trespass Analysis (LAMC, CALGreen)

Project Building Lighting at the Broadway Junction location illustrated in Appendix A is evaluated with respect to light trespass illuminance with respect to the LAMC and CALGreen.

Calculation Plane VP-S7 at the south property line of the residential use properties at 451 and 455 Savoy St., Vertical Plane VP-W5 at the residential property line to the east of the Broadway Junction Project Site at 438 Savoy St., VP-S5 at the north Project Site property line adjacent to 438 Savoy St. and 434 Savoy St., and VP-N3 at the north property line of the residential zoned property at the North Broadway St. right of way (Figure 28). Illuminance calculations at these locations are used to evaluate the light trespass illuminance at the nearest residential property as per LAMC. The maximum calculated vertical illuminance at VP-S7 is 0.10 fc, at VP-S5 is 0.20 fc, and VP-W5 is 0.20 fc, and at VP-N3 is 0.30 fc. The maximum calculated horizontal illuminance at VP-S7 is 0.00 fc, at VP-S5 is 0.00 fc, and VP-W5 is 0.00 fc, and at VP-N3 is 0.10 fc. The Project maximum calculated vertical and horizontal illuminance at all vertical plane locations is less than 2.0 fc LAMC threshold.

The Broadway Junction Building Lighting is also evaluated with respect to the CALGreen threshold of 0.74 fc. Vertical Planes VP-S5 and VP-W5 are coincident with the locations noted above for the LAMC evaluation. Vertical plane VP-S6 is located at the centerline of Savoy St. north of the Broadway Junction Project Site, and VP-N4 is located at the centerline of the N. Broadway St. right of way.



Figure 28: Broadway Junction Project Site

The maximum calculated light trespass vertical illuminance at VP-S5 is 0.20 fc, VP-S6 is 0.10 fc, VP-W5 is 0.20 fc, and VP-N3 is 0.30 fc. The maximum calculated light trespass horizontal illuminance at VP-S5 is 0.00 fc, VP-S6 is 0.00 fc, VP-W5 is 0.00 fc, and VP-N3 is 0.10 fc. The maximum calculated vertical and horizontal illuminance is less than the CALGreen threshold of 0.74 fc.

Therefore, Project Building Lighting at the Broadway Junction will not create a light trespass impact with respect to LAMC, or CALGreen.

(6) Stadium Tower Light Trespass Analysis

The Stadium Tower location is more than 500 feet from the nearest residential use property. Light degrades at the inverse square of the distance (see Inverse Square Law above). More distant locations farther away from the Project Alignment or Project Sites will receive much less light than the sites analyzed due to the inverse square law, and the exponential reduction of light intensity relative to distance.

The LAMC analysis compares the Stadium Tower light trespass to the Alpine Tower light trespass analysis presented above. The distance to the nearest residential use properties to the Stadium Tower is approximately 500 feet. These residential properties will receive far less light than VP-E2 which is located at the nearest residential use property adjacent to the Alpine Tower and 62 feet from the Alpine Tower Project Site. The LAMC analysis calculated maximum illuminance at VP-E2 is 0.30 fc. The estimated light trespass illuminance from the Stadium Tower with similar lighting as the Alpine Tower, at 500 feet to the nearest residential use, is calculated as follows: $0.30 \text{ fc} \times 1/ (500/62)^2 = 0.005$ fc. Therefore, the light trespass illuminance from the Stadium Tower at the nearest residential use is 0.005 fc, which is less than the LAMC threshold of 2.0 fc, and will not create a light trespass illuminance impact with respect to the LAMC.

Similarly, the CALGreen analysis compares the Stadium Tower light trespass to the Alpine Tower light trespass analysis presented above. The distance to the Stadium Tower CALGreen Project site boundary is 72 feet which is greater than the distance from the Alpine Tower to the Alpine Tower CALGreen Project Site boundary (55 feet). The increased distance to the Stadium Tower CALGreen boundary results in decreased illuminance. Therefore, the CALGreen analysis calculated maximum illuminance adjacent to Alpine Tower at VP-E2 is 0.30 fc. will be greater than the maximum illuminance at the Stadium Tower CALGreen Project site boundary. Accordingly, the light trespass illuminance at the Stadium Tower would be less than the CALGreen threshold of 0.74 fc, and will not create a light trespass illuminance impact with respect to CalGreen.

Therefore, there is no light from the Project Stadium Tower that will create a new light trespass impact at any residential use property with respect to the LAMC or CALGreen.

(7) Dodger Stadium Station Light Trespass Analysis

The Dodger Stadium Station location is more than 900 feet from the nearest residential use property. Light degrades at the inverse square of the distance (see Inverse Square Law above). More distant locations farther away from the Project Alignment or Project Sites will receive much less light than the sites analyzed due to the inverse square law, and the exponential reduction of light intensity relative to distance.

The LAMC analysis compares the Dodger Stadium Station light trespass to the Chinatown/State Park Station light trespass analysis presented above. The distance to the nearest residential use properties to the Dodger Stadium Station is approximately 900 feet. These residential properties will receive far less light than VP-S4 at 135 feet from the Chinatown/State Park Station Project Site. The LAMC analysis calculated maximum illuminance at VP-S4 is 0.80 fc. The estimated light trespass illuminance from the Dodger Stadium Station with similar lighting as the Chinatown/State Park Station, at 900 feet to the nearest residential use is calculated as follows: $0.80 \text{ fc} \times 1/ (900/135)^2 = 0.018 \text{ fc}$. Therefore, the light trespass illuminance from the Dodger Stadium Station at the nearest residential use is 0.018 fc, which is less than the LAMC threshold of 2.0 fc, and will not create a light trespass illuminance impact with respect to the LAMC.

Similarly, the CALGreen analysis compares the Dodger Stadium Station light trespass to the Chinatown/State Park Station light trespass analysis presented above. The distance from the Dodger Stadium Station to the Dodger Stadium Station Project site boundary is approximatly 430 feet, which is greater than the distance from the Chinatown/State Park Station to the Chinatown/State Park Station Project Site boundary (78 feet). Therefore, the CALGreen analysis calculated maximum illuminance adjacent to Chinatown/State Park Station at VP-S4 is 0.40 fc. will more than the maximum illuminance at the Dodger Stadium Station Project Site. Accordingly, the light trespass illuminance at the Dodger Stadium Station would be less than 0.40 fc, which is less than the CALGreen threshold of 0.74 fc, and will not create a light trespass illuminance impact with respect to the LAMC.

Therefore, there is no light from the Project Dodger Stadium Project site that will create a new light trespass impact at any residential use property with respect to the LAMC or CALGreen.

(8) Cabins Light Trespass Analysis

Project Building Lighting within the Cabins as illustrated in Appendix A is evaluated with respect to light trespass illuminance along the Project Alignment from Alameda Station to Dodger Stadium Station. The light trespass illuminance from the Cabins is evaluated at the perimeter of the Project Alignment and includes an analysis of the Cabins alone as well as the Cabins in conjuction with the Project Building Lighting. As the Cabins traverse the Project Alignment illustrated in Figure 1, from Alameda Station to Dodger Stadium Station, the elevation of the Cabins vary from approximately 28 to 154 feet above grade.

Table 8: Light Trespass Illuminance (fc) from Cabins and Project sites at Residential Properties - LAMC

Location	Vertical Plane	Illuminance (fc)		LAMC Analysis (2.0 fc threshold)
		Vertical Max	Horizontal Max	
Alameda Station	VP-E1	1.94	0.70	Less than threshold
	VP-S1	0.54	0.20	Less than threshold
	VP-W1	0.74	0.40	Less than threshold
Alameda Tower	VP-S3	0.04	0.00	Less than threshold
Alpine Tower	VP-E2	0.34	0.00	Less than threshold
	VP-N1	0.04	0.00	Less than threshold
Chinatown/State Park Station	VP-E4	0.64	0.20	Less than threshold
	VP-S4	0.84	0.00	Less than threshold
	VP-W3	0.84	0.20	Less than threshold
Broadway Junction	VP-S5	0.24	0.00	Less than threshold
	VP-S7	0.14	0.00	Less than threshold
	VP-W5	0.24	0.00	Less than threshold
	VP-N3	0.34	0.10	Less than threshold
Stadium Tower	None			Less than threshold
Dodger Stadium Station	None			Less than threshold

The minimum distance to the nearest adjacent residential use properties along the Project Alignment from the Cabin's path of travel is approximately 32 feet. Therefore, the most conservative evaluation of light trespass illumination with respect to the LAMC from the Cabin lighting along the Project Alignment occurs at 32 feet from the Cabin. The calculated maximum illuminance from the Cabins at 32 feet is 0.04 fc vertical and 0.00 fc horizontal. The calculated vertical and horizontal illuminance is less than the LAMC threshold of 2.0 fc where the Cabins are along the Project Alignment, adjacent to a residential use property, and not adjacent to a Project Station or a Project Tower.

The Cabins travel along the Project Alignment near the boundary of the Project Alignment project site. The analysis of light trespass with respect to CALGreen excludes the internal lighting required for ADA access and for operation of the Cabins. Therefore, the vertical illuminance at the Project Alignment boundary is 0.00 fc and the horizontal illuminance at the Project Alignment boundary ground plane is 0.00 fc. The light trespass illuminance from the Cabins is less than 0.74

fc at the Project boundary. Therefore there is no light trespass impact from the Cabins with respect to the CALGreen threshold of 0.74 fc.

All Cabins lighting is less than 60 watts, and is therefore exempt from the CASP requirements for those segments of the Project Alignment within the CASP, from north of W College Ave to N Broadway St. Accordingly, the Cabins lighting complies with the CASP.

The Cabins travel along the eastern boundary of the Project Alignment which is also within the RIO from W College Ave to the Alameda Station. The distance from the Cabins to the RIO boundary along the Project Alignment is 1 foot. The calculated vertical illuminance at the boundary of the Project Alignment RIO boundary is 1.21 fc, and the calculated horizontal illuminance at the Project Alignment ground plane is 0.00 fc. The Cabin vertical illuminance is greater than the RIO threshold of 0.20 fc at the Project boundary. The Cabin horizontal illuminance is less than the RIO threshold of 0.20 fc the Project boundary.

At 15 feet beyond the Project Alignment RIO boundary the Cabins vertical illuminance is 0.12 fc and the horizontal illuminance at the Project Alignment RIO ground plane is 0.00 fc. The Cabin vertical illuminance is greater than the RIO threshold of 0.01 fc at 15 feet beyond the Project boundary. The Cabin horizontal illuminance is less than the RIO threshold of 0.01 fc at 15 feet beyond the Project boundary.

As the Cabins approach a Project Station or Tower the illuminance from the Cabins is additive to the Building Project illuminance at each Station and Tower. The minimum distance from the Cabins to VP-W1 adjacent to the Alameda Station Project site is 38 feet. At 38 feet from the Cabins the calculated vertical illuminance is 0.04 fc and the calculated horizontal illuminance is 0.00 fc. The minimum distance to the Alameda Tower, Alpine Tower, Chinatown/State Park Station, Broadway Junction, Stadium Tower, and Dodger Stadium Station is 32 feet. As noted above, at 32 feet the calculated vertical illuminance is 0.04 fc and the calculated horizontal illuminance is 0.00 fc. As the Cabins approach the Stations or Towers the LAMC and CALGreen analysis presented above in Tables 5 is adjusted by adding the maximum illuminance from the Cabins at 38 feet to vertical plane VP-W1, and adding the maximum illuminance from the Cabins at 32 feet to all other vertical planes. As a result the maximum illuminance within Table 5 at VP-E1 increases as noted in Table 9 from maximum 1.90 fc to 1.94 fc. The maximum illuminance at VP-W1 increases from 0.70 fc to 0.74 fc. The addition of the Cabins illuminance to the Building Lighting illuminance in Table 5 results in vertical and horizontal illuminance below the maximum LAMC threshold of 2.0 fc. All calculated vertical and horizontal illuminance remain less than 2.0 fc. Therefore, there is no cumulative light trespass impact from the Cabins Lighting and the Project Building Lighting at Stations Sites and or Tower Sites.

The calculated illuminance from the Project Cabins lighting in conjunction with the CALGreen analysis in Table 6 does not increase because the cabin lighting is exempt under CALGreen. Therefore there is no light trespass impact from the Cabins lighting in conjuction with the adjacent lighting from the Project Site Stations and or Tower Sites with respect to CALGreen.

All light fixtures within and on the surface of the Cabins are less than 60 watts, and are therefore exempt from the CASP requirements as noted above.

Table 10 presents the cumulative maximum illuminance from the Cabins and Project Building Lighting at the Alameda Station, Alameda Tower, Chinatown/State Park Station, and Alpine Tower with respect to the RIO analysis presented in Table 8. The Cabins travel within 38 feet of the residential use property at the east side of the N. Alameda right of way at the Alameda Station platform adjacent to vertical plane VP-W1. As noted above the calculated vertical illuminance at 38 feet is 0.04 fc, and the calculated horizontal illuminance at the ground plane is 0.00 fc. The Cabins travel within 32 feet of the Project Boundary at the Alameda Tower and Alpine Tower. As noted above the calculated vertical illuminance at 32 feet is 0.04 fc, and the calculated horizontal illuminance at the ground plane is 0.00 fc. The cumulative illuminance from the Cabins and the Building Lighting at VP-W1 is 0.84 fc which is greater than the RIO threshold of 0.20 fc at the Project boundary. The Cabin horizontal illuminance is greater than the RIO threshold of 0.01 fc at 15 feet beyond the Project boundary.

Table 9: Illuminance (fc) Cumulative Cabins and Buildings at Project Boundary, RIO

Location	Vertical Plane	Illuminance (fc) at Project Boundary		Illuminance (fc) 15 ft beyond Boundary		RIO Analysis (0.20 fc threshold at Boundary, 0.01 fc at 15 ft beyond Boundary)
		Vertical Max	Horizontal Max	Vertical Max	Horizontal Max	
Alameda Station	VP-S1	0.54	0.20	0.42	0.20	Greater than RIO threshold
	VP-W1	0.84	0.50	0.72	0.30	Greater than RIO threshold
Alameda Tower	VP-S2	0.14	0.00	0.02	0.00	Greater than RIO threshold
	VP-W2	0.04	0.00	0.02	0.00	Greater than RIO threshold
Alpine Tower	VP-N1	0.04	0.00	0.02	0.00	Greater than RIO threshold
	VP-W4	0.34	0.00	0.12	0.00	Greater than RIO threshold

At 15 feet beyond the Project Alignment eastern boundary the Cabins vertical illuminance is 0.02 fc and the horizontal illuminance at the Project Alignment ground plane is 0.00 fc. The Cabin vertical illuminance is greater than the RIO threshold of 0.01 fc at 15 feet beyond the Project boundary. The Cabin horizontal illuminance is greater than the RIO threshold of 0.01 fc at 15 feet beyond the Project boundary.

Therefore there is no light trespass illuminance impact from the exterior lighting of the Project Cabins with respect to LAMC, CALGreen, and the CASP. While the Project Cabins would exceed the RIO there is no light trespass impact since the existing lighting at the areas adjacent to the Project Sites within the RIO is greater than the RIO threshold. In addition, the Project includes a proposed Overlay District or other similar legislative action to establish the land use regulations for the Project to ensure consistent implementation of development standards throughout the Project sites in recognition of the Project's unique characteristics, including unique opportunities for public benefits and unique constraints posed by the Project site's location which are not experienced by other sites. With approval of the Overlay District or other similar legislative action, which would include its own lighting standards, there would be no conflict with the RIO.

(9) Building Light Trespass Analysis Conclusions

Project Building lighting, which includes the Project Cabins Lighting, is analyzed in this Study with respect to existing regulations and lighting standards as defined by the LAMC, CALGreen, CASP, and RIO. The maximum calculated light trespass illuminance from the Project Building Lighting is less than the LAMC threshold of 2.0 fc at all adjacent residential and sensitive use sites, and complies with the requirements of CALGreen. Furthermore, the Project Building Lighting complies with the CASP as all Project Building Lighting is less than 60 watts and therefore is exempt from the CASP required lighting criteria. While the Project Building Lighting would exceed the RIO there is no light trespass impact since the existing lighting at the areas adjacent to the Project Sites within the RIO is greater than the RIO threshold. In addition, the Project includes a proposed Overlay District or other similar legislative action to establish the land use regulations for the Project to ensure consistent implementation of development standards throughout the Project sites in recognition of the Project's unique characteristics, including unique opportunities for public benefits and unique constraints posed by the Project site's location which are not experienced by other sites. With approval of the Overlay District or other similar legislative action, which would include its own lighting standards, there would be no conflict with the RIO.

Therefore, Project Building Lighting will not create a light trespass impact.

8.1.b Light Trespass Illuminance Analysis – Sign Lighting

This Study analyzes the proposed Sign Lighting as described in Appendix B and calculates light trespass illuminance in footcandels, with the calculation results presented in Tables below. Complete calculated data is presented in Appendix I. The Project Sign Concept in Appendix B is evaluated with respect to light trespass illuminance thresholds defined above in Section 5, as defined by LAMC Chapter 1, Article 4.4, Sec. 14.4.4 E: E.. The Project Sign Light Trespass analysis evaluates the illuminance (fc) from the Sign Lighting leaving the Project site toward adjacent residential use or other sensitive use properties as descrived in Figure 4 above with respect to the maximum light trespass threshold of 3.0 fc.

Table 10: Sign Trespass Illuminance (fc), LAMC at 300 cd/m^2

Location	Vertical Plane	Illuminance (fc)		LAMC Analysis (3.0 fc threshold)
		Max Vertical	Max Horizontal	
Alameda Station	VP-E1	2.90	1.00	Less than threshold
	VP-S1	1.10	0.10	Less than threshold
	VP-W1	1.10	0.40	Less than threshold
Alameda Tower	VP-S3	0.10	0.00	Less than threshold
Alpine Tower	VP-E2	0.60	0.20	Less than threshold
	VP-N1	0.50	0.10	Less than threshold
Chinatown/State Park Station	VP-E4	0.50	0.10	Less than threshold
	VP-S4	1.30	0.30	Less than threshold
	VP-W3	1.20	0.40	Less than threshold
Broadway Junction	VP-S5	0.10	0.00	Less than threshold
	VP-S7	0.20	0.00	Less than threshold
	VP-W5	0.20	0.00	Less than threshold
	VP-N3	1.80	0.60	Less than threshold
Stadium Tower	None	0.01	0.00	Less than threshold
Dodger Stadium Station	None	0.03	0.00	Less than threshold

Table 11 summarizes the Sign Lighting Trespass illuminance calculation data at the vertical plane locations illustrated in Figure 4, which are located at the nearest residential and senstivie use properties adjacent to the Project Sites. The Project Signs maximum calculated vertical illuminance in Table 11 varies from a minimum of 0.10 fc at vertical planes VP-S3 and VP-S5 to a maximum of 2.90 fc at vertical plane VP-E1. The Project Signs maximum calculated horizontal illuminance in Table 11 varies from a minimum of 0.00 fc at vertical planes VP-S3, VP-S5, VP-S7, and VP-W5 to a maximum of 1.00 fc at vertical plane VP-E1.

In addition, vertical and horizontal illuminance from the Project Signs at the nearest residential property adjacent to Stadium Tower and the Dodger Stadium Station will be less than 3.0 fc due to the significant distance from the Project

Sites to the adjacent residences. The vertical and horizontal illuminance from Project Signs is less than the LAMC threshold of 3.0 fc, and will therefore not create an impact at residential use properties.

As noted previously, sign lighting is exempt from CALGreen, the RIO, and CASP.

8.2 Project Glare Analysis

Glare from the Project may occur when Project light sources are visible against a dark background, such as a dark sky. The Project Lighting (Building Lighting, Cabin Lighting, and Signs) may be visible from the surrounding properties to the east, west, north, and south of the Project Sites. Potential sources of glare from the Project are identified by the Contrast Ratio, which is calculated by dividing the Project maximum luminance by the Average Measured Luminance. Contrast Ratios of 30:1 or greater indicate high contrast conditions, which may create a glare impact. Contrast Ratios less than 30:1 are considered medium contrast, and will not introduce a new source of glare. Contrast Ratios less than 10:1 are considered low contrast, and will not introduce a new source of glare. The Existing Average Luminance is the recorded luminance measured at the Monitoring Sites as summarized in Table 4.

8.2.a Glare Analysis – Building Lighting

The Project Building Lighting glare analysis compares the maximum Project Building Lighting luminance visible from a sensitive use property to the Existing Average Luminance measured at the Monitoring Sites within the field of view to the Project Site in Section 3 above. Project Building Lighting includes all building and site lighting at the Alameda Station, Alameda Tower, Alpine Tower, Chinatown Park Station, Broadway Junction, Stadium Tower, and Dodger Stadium Station, and the Cabins traveling along the Project Alignment. For each of these locations the maximum visible luminance from the Project is analyzed in comparison to the existing conditions. Table 12 summarizes the Project Building Lighting Contrast Ratio calculated for the Project Building Lighting maximum night luminance versus the Existing Average Luminance in Table 4 at each Monitoring Site to evaluate glare. The observed lighting conditions at the Monitoring Sites documented in Section 3 above vary from minimal visible light to very well illuminated with many bright visible surfaces and light sources. The measured luminance recorded at the Monitoring Sites in Section 3 within the view to the Project includes lower brightness surfaces such as un-illuminated walls or landscape areas and prominent, high brightness light sources and illuminated surfaces, such as streetlights, illuminated signs, and flood lighted buildings.

Table 11: Project Building Lighting Contrast Ratio

Monitoring Site	Existing Average Luminance (cd/m^2)	Project Luminance		Evaluation
		Max (cd/m^2)	Contrast Ratio (Max / Average)	
M1	193.0	300.0	1.6 : 1	Low Contrast Ratio
M2	139.9	300.0	2.1 : 1	Low Contrast Ratio
M3	132.3	300.0	2.3 : 1	Low Contrast Ratio
M4	58.1	300.0	5.2 : 1	Low Contrast Ratio
M5	254.3	300.0	1.2 : 1	Low Contrast Ratio
M6	384.7	300.0	0.8 : 1	Low Contrast Ratio
M7	304.7	300.0	1.0 : 1	Low Contrast Ratio
M8	224.8	300.0	1.3 : 1	Low Contrast Ratio

The Project Building Lighting Concept Design (Appendix A) includes design features which limit visible luminance from the Project at sensitive use properties by shielding the light sources and aiming the Project Building Lighting to the area within the Project Site. As noted above the Project Building Lighting is exempt from the CalGreen requirements because the Project includes design features to limit all outdoor luminaires to 6200 initial lumens or less. Nevertheless, the Building

Lighting Concept utilizes light fixtures which comply with IESNA TM-15-11, which means the Project Building Lighting fixtures are designed to limit visible glare from surrounding properties. Within CALGreen Table 5.106.8, for Lighting Zone 3, the maximum allowable glare rating is G2, which allows up to 375 zonal lumens for either BVH (Back Vertical to Horizontal) or FVH (Forward Vertical to Horizontal) zones, which may be directed toward the Project property line. The Project light fixtures comply with these criteria. The 375 lumen maximum is comparable to an approximately 30 cd/m^2 surface luminance for a light source area approaching 1 m^2. This Study utilizes 300 cd/m^2 to evaluate the Contrast Ratio of the Project Lighting to the average measured existing luminance at the Monitoring Sites as documented above in Section 7, which is an extremely conservative approach at ten times higher than the maximum luminance of typical Project light sources.

The Building Lighting Contrast Ratio from the Project is less than 30:1 at all Monitoring Sites summarized in Table 12. At all eight Monitoring Sites the Contrast Ratio is less than 10:1, which indicates a low contrast ratio. Therefore, the Project Building Lighting will not create a high contrast or glare condition at any of the surrounding Monitoring Sites, which are representative of the sensitive use properties in the vicinity of the Project.

8.2.b Glare Analysis – Sign Lighting

The Project Sign Lighting glare analysis compares the maximum Project Sign luminance visible from a sensitive use property to the Existing Average Luminance measured at the Monitoring Sites within the field of view to the Project Site. The maximum Project Sign luminance is stipulated to be 300 cd/m^2 at night. The Existing Average Luminance is summarized in Table 4 in Section 7 above. Table 13 summarizes the Project Signs Contrast Ratio calculated for the Project Sign maximum night luminance versus the Existing Average Luminance in Table 4 at each Monitoring Site to evaluate glare.

Table 12: Project Signs Contrast Ratio

Monitoring Site	Existing Measured Luminance		Project Maximum Luminance		Evaluation
	Average	Maximum	Max	Contrast Ratio	
M1	193.0	3378.0	300	1.6 : 1	Low Contrast Ratio, No Glare Impact
M2	139.9	3083.0	300	2.1 : 1	Low Contrast Ratio, No Glare Impact
M3	132.3	1611.0	300	2.3 : 1	Low Contrast Ratio, No Glare Impact
M4	58.1	1324.0	300	5.2 : 1	Low Contrast Ratio, No Glare Impact
M5	254.3	3751.0	300	1.2 : 1	Low Contrast Ratio, No Glare Impact
M6	384.7	7038.0	300	0.8 : 1	Low Contrast Ratio, No Glare Impact
M7	304.7	3436.0	300	1.0 : 1	Low Contrast Ratio, No Glare Impact
M8	224.8	2944.0	300	1.3 : 1	Low Contrast Ratio, No Glare Impact

The observed lighting conditions at the Monitoring Sites documented in Section 3 above vary from minimal visible light to very well illuminated with many bright visible surfaces and light sources. The measured luminance recorded at the Monitoring Sites in Section 3 within the view to the Project includes lower brightness surfaces such as un-illuminated walls or landscape areas and prominent, high brightness light sources and illuminated surfaces, such as streetlights, illuminated signs, and flood lighted buildings,

The Sign Lighting Contrast Ratio presented in Table 13 is less than 30:1 at all Monitoring Sites. At all eight Monitoring Sites the Contrast Ratio is less than 10:1, which indicates a low contrast ratio. The Sign Contrast Ratio varies from a minimum of 0.8 to 1 at Monitoring Site M6, to a maximum of 5.2 to 1 at Monitoring Site M4. The calculated Sign Contrast Ratios at all Monitoring Sites are less than 10:1, which indicates Low Contrast. Therefore, there is no glare impact from the Project Signs at all Monitoring Sites and at adjacent residential use properties. Residential use properties more distant from the Project Sites will receive less light and have less visibility than the properties nearby to the Project Sites. Therefore, the Project will not create a new source of glare at residential properties.

8.2.c California Vehicle Code Glare Analysis for Roadways

The lighting impact to driver's visibility from the Project's Building Lighting, Cabin Lighting, and Signs is evaluated by way of the methodology defined above at the center line of the drivers field of view and at angles wider than the center line of the drivers field of view. Bright sources within the drivers field of view, from the centerline of the roadway to angles up to 90 degrees from the center line of the roadway, may create glare if the light source is brighter than the limits established by the California Vehicle Code. As summarized below, the results of this Study demonstrate the maximum Project luminance is less than the limits established by the California Vehicle Code for excessive luminance, or glare, during night, twilight (sunset and sunrise) and during the day. Accordingly, the Project meets the California Vehicle Code standard for roadways approaching the Project from all directions.

The roadway glare analysis evaluates the maximum Project luminance during night, twilight, and day with respect to the most stringent requirements of the California Vehicle Code to determine if the Project introduces a source of distracting glare to drivers. The maximum Project luminance at night and during twilight includes the Building Lighting, Cabins Lighting, and Signs. The maximum Project luminance during the day includes the Signs. Building Lighting and Cabin Lighting does not operate during the day while there is sufficient sun light. The California Energy Code requires all Building Lighting and Cabin Lighting to be controlled by photocell to turn off when sun light is available.

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, a conservative evaluation, occurs where the Project is visible within the centerline of the driver's 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 condition at night or a twilight evaluates the Project Lighting maximum luminance against a maximum luminance threshold of 500 fL.

Night

A measured brightness within the driver's field of view of less than 10 fL may occur at night. The maximum Project luminance during night is the Sign luminance of 300 cd/m^2. Calculating the equivalent maximum luminance by converting to english units from metric units: 300 cd/m^2 equals 87.6 fL. The Project maximum luminance will not exceed 87.6 fL, which is 17.5% of 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. The Building Lighting and Cabin Lighting maximum luminance is 300 cd/m^2 as noted above, which is the same as the maximum Project Sign luminance. Therefore, the Project Building Lighting and Cabins Lighting will not exceed 87.6 fL, or 17.5% of the 500 fL maximum allowed by the California Vehicle Code.

For Project Lighting located beyond the driver's 10 degree field of view the maximum luminance is permitted to increase under the California Vehicle Code. For example, light sources located 15 degrees from the centerline of the driver's field of view would be limited to a maximum of 1,000 fL (500 fL plus 100 times the angle (5 degrees) = 1,000 fL). The maximum Project Sign luminance is 300 cd/m^2 or 87.6 fL at night, or less than approximately 8.8% 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. The Building Lighting and Cabin Lighting maximum luminance is 300 cd/m^2, which will not exceed 87.6 fL, or 8.8% of the 1000 fL maximum allowed by the California Vehicle Code at 15 degrees from the center of the drivers field of view. Therefore, at night the Project lighting beyond the drivers 10 degree field of view will not exceed the 1000 fL threshold and will not introduce a new source of glare as defined by the California Vehicle Code Section 21466.5.

Twilight

The Project is also evaluated during twilight (the transition period from day to night, from sunset to 45 minutes after sunset, and from 45 before sunrise to sunrise). Sunlight increases gradually from the minimum brightness at sunrise to maximum brightness at mid-day, and then decreases gradually to the minimum brightness at sunset. Therefore, the minimum ambient luminance occurs after sunset or before sunrise. However, in order to analyze the most conservative, low level sunlight conditions, this analysis adjusts the time frame for the minimum ambient luminance condition of 10 fL to sunset and at sunrise, extending the duration of minimum sunlight. At sunset the ambient sunlight will be greater than the minimum values during twilight, and at sunrise the luminance will be greater than the minimum during the night. At sunset or sunrise, 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 conservative analysis, this evaluation assumes the minimum luminance within the driver's field of view will be less than 10 fL from sunset until sunrise. Therefore, the maximum luminance during this time will remain at 500 fL. The maximum luminance permitted by the California Vehicle Code of 500 fL, which converting to metric units, equals 1579 cd/m^2.

The Signs are designed to operate at 300 cd/m^2 (87.6 fL) maximum luminance, from sunset to sunrise. At 45 minutes prior to sunset the Project Signs are specified to begin transition from the maximum daytime luminance of 10,000 cd/m^2 to the maximum nighttime luminance of 300 cd/m^2. This transition must be completed no later than sunset to avoid potential high contrast, glare conditions. Similarly, the Project Signs are specified to transition from the night maximum luminance of 300 cd/m^2 to the day maximum luminance of 10,000 cd/m^2, beginning no earlier than sunrise. The Building Lighting and Cabin Lighting will begin operating as the sun sets and stop operating as the sun rises. The maximum Building and Cabin luminance is 300 cd/m^2 as noted above, which is the same as the maximum Project Sign luminance. Therefore, the Project Building Lighting and Cabins Lighting will not exceed 87.6 fL, or 17.5% of the 500 fL maximum allowed by the California Vehicle Code during twilight. Therefore, the Project will not exceed the threshold of 500 fL, and will therefore not introduce a new source of Glare, and will not create an impact.

Day

The evaluation of the Project Signs during the day (45 minutes after sunrise until 45 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 (45 minutes after sunrise until 45 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 10 fL 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 Project's illuminated signs will not exceed 10,000 cd/m^2 (2,918 fL) during the daytime hours of operation; Project signs will therefore operate at less than 29% of the maximum luminance stipulated by the California Vehicle Code. Therefore, the Project will 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 Project includes an electronic control system to reduce the sign luminance from 10,000 cd/m^2 (2,918 fL) to 300 candelas/m^2 (87.6 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 Signs will transition from the daytime 10,000 cd/m^2 (2,918 fL) to 300 cd/m^2 (87.6 fL) maximum, and thereby ensure that the sign brightness remains less than the maximum brightness stipulated by the California Vehicle Code. Therefore, the Project Signs will not create a new source of glare during day time periods with storm or severe overcast weather conditions. Project Building and Cabin Lighting may operate during overcast conditions when the ambient sunlight is less than 100 fc. The maximum Building and Cabin luminance is 300 cd/m^2 as noted above. Therefore, the Project Building Lighting and Cabins Lighting will not exceed 87.6 fL, or 17.5% of the 500 fL maximum allowed by the California Vehicle Code during overcast conditions.

The Project is designed to not exceed 300 cd/m^2 (87.6 fL) luminance at night or during overcast sky conditions, and Project Signs will not exceed 10,000 cd/m^2 (2,918 fL) during the day. The luminance is less than the California Vehicle Code standard, including 29% of the maximum allowable luminance identified as the threshold for glare during the day, therefore the Project will not create a new source of Glare.

9. Conclusions

The Project proposes to install Building Lighting and Sign Lighting while minimizing light trespass and glare at neighboring residential use properties and for drivers on surrounding streets. This Study analyzes the Project's potential environmental impacts resulting from the Project's building and cabin lighting program (Building Lighting) as described by the Building Lighting Concept included herein as Appendix A, and the Project's illuminated signs (Sign Lighting), as described by the Sign Concept Design Documents included in Appendix B of this Study.

This Study concludes the Project light trespass illuminance will be less than significant. This Study demonstrates light trespass illuminance from the Project at adjacent residential properties would be below the threshold of 2.0 fc for Building Lighting and below the threshold of 3.0 fc for Sign Lighting. The Project Building Lighting, including exterior lighting at the Project sites, building exterior lighting, and Cabins, will be less than the maximum light trespass illuminance of 2.0 fc at all adjacent residential use properties as stipulated by LAMC. The Project Building Lighting also complies with the requirements of CALGreen, with maximum light trespass illuminance less than 0.74 fc from all non exempt lighting. The Project complies with the CASP requirements where they apply at the Chinatown/State Park Station by use of light fixtures less than 60 watts. The Project Building Lighting is greater than the RIO threshold of 0.2 fc at the Project boundary and 0.01 fc at 15 ft beyond the Project boundary. Although the Project Building Lighting exceeds the RIO threshold, there is no light trespass impact since the existing lighting at the areas adjacent to the Project Sites within the RIO is greater than the RIO threshold. In addition, the Project includes a proposed Overlay District or other similar legislative action to establish the land use regulations for the Project to ensure consistent implementation of development standards throughout the Project sites in recognition of the Project's unique characteristics, including unique opportunities for public benefits and unique constraints posed by the Project site's location which are not experienced by other sites. With approval of the Overlay District or other similar legislative action, which would include its own lighting standards, there would be no conflict with the RIO.

Project Sign Lighting trespass illuminance will be less than 3.0 fc at all adjacent residential use properties as stipulated by the LAMC. Therefore, the Project Signs will not create a new source of light trespass and will not create an impact.

This Study also concludes the Project will not create a new source of glare, or high contrast conditions. Project Building and Cabins Lighting will be less than high contrast conditions with a maximum luminance of 300 cd/m^2 at night, and will not create glare at residential, sensitive sites, or roadway sites. Project Signs will be less than high contrast conditions with a maximum sign luminance of 300 cd/m^2 at night, during twilight, and overcast conditions, and will not create glare at residential, sensitive sites, or roadway sites. This Study also confirms the Project will not create a new source of glare to drivers on adjacent streets and freeways. The maximum Project luminance from Signs Lighting at 300 candelas/m^2 (87.6 fL) luminance at night, or during overcast sky conditions, and at 10,000 cd/m^2 (2,918 fL) during the day is less than the California Vehicle Code required maximum allowable luminance. Therefore the Project Signs will not create a new source of Glare.

This Study concludes the Project will not create a significant impact from light trespass or glare.

APPENDIX A: Building Lighting Concept Plan

FRANCIS KRAHE & ASSOCIATES



LOS ANGELES AERIAL RAPID TRANSIT

LIGHTING DESIGN REPORT

May 10, 2022

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Introduction

Effective lighting provides the necessary illumination for passengers to safely board and enjoy the Aerial Rapid Transit System while providing an interesting, iconic lighted element. Lighting enhances the experiance of the users and creates an intersting image for the Project Identity. This report presents lighting designs for the critical public areas of the project, with special emphasis on the stations and surrounding environment, and the place making aspects of light within the public realm. The objective is to create efficient lighting for the users, with durable ideas and components so that this project will enhance the surrounding neighborhood. This Lighting Design Report summarize the recommendations developed by Francis Krahe & Associates. This Lighting Design Report provides a representative lighting design for analysis of lighting impacts of the Aerial Rapid Transit System. This lighting concept is subject to further revision and development.

Lighting Scope of Work

Key components within this composition are:

Station Sites and Plazas

Station Boarding Platforms

Cabins

Station Escalators, Stairs, and Elevators

Station Facades

Tower Facades

Design Objectives

The design of the Los Angeles Aerial Rapid Transit project presents a unique opportunity to create an identity at the city scale while striving to reach minimal energy consumption and lighting impact. This Lighting Design Report presents solutions which provide the light users need for productivity, with minimum energy consumption, while creating beautiful spaces.

The key design principles are:

Lighting will engage and draw attention to the project to establish the identity of the architectural form and the functionality of the Stations and Towers to enhance use.

Lighting will contribute to place-making at night, to support active use of the public space.

The lighting systems are designed to incorporate efficient technologies to meet the energy conservation objectives.

Lighting system utilize the longest life, durable, LED products to minimize energy use and reduce maintenance relamping cost.

Lighting products are selected and located to maximize useful light and reduce glare or veiling reflections. Illuminance is accurately tailored to the task requirements of the particular space, with little or no excess capacity.

Innovative control systems are employed to maximize the benefits of day light, turn off lights when spaces are unoccupied and reduce lighting after hours.

Light systems are integrated with the architectural form and character. Key components have been developed to form a comprehensive scheme which unites various spaces within the Project route to create a consistent light character and quality of light.

The solutions developed integrate light within the form and structure of the space to clearly communicate function and the relationship of the lighting to the larger architecture of the structures.

Basis of Design

ILLUMINANCE DESIGN CRITERIA

The Illuminance design criteria for Transit Systems are established in accordance with California Electric Code, the Illuminating Engineering Society (IES) recommendations and Transit System operating standards prepared by RIOS and SCJ.

The Project design goal is to meet or exceed CEC 2019 Title 24 lighting energy standards with respect to energy efficient design by minimizing excess light in non-essential spaces, employing state of the art control strategies and utilizing high efficiency light fixtures.

The basis of design for lighting at the task area work plane surface:

Entrance and Exit Doors at threshold: 5 fc minimum
Egress Walkways: 1.0 fc
Egress Walkways: 1.0 fc minimum under emergency power, for 90 minutes.
Stairs: 10 fc minimum
Elevator Threshold: 10 fc minimum
Elevator Cab Interior: 5 fc minimum
Escalators: 5 fc minimum
Platforms: 20 fc average
Outdoor seating: 1.0 fc average
Cabins: 5 fc average at the floor, 2 fc minimum

LIGHTING CONTROL

Exterior lighting is controlled by photocells for ON and building lighting control system or photocell for OFF. Selected lighting is on emergency power to achieve minimum of 1 foot-candle of emergency illumination from exit discharge to the public right of way. Exterior fixtures will have two switched conductors—one on time clock and the other on photocell with an ability to be reconfigured with minimal effort.

All lighting is controlled by the building lighting control system with local override control switches where required. Lighting controls will minimize lighting loads in unoccupied spaces.

Egress and safety lighting is provided by ceiling mount or wall mount fixtures connected to the emergency power source, non-switched, to provide no less than one foot-candle minimum.

Lighting in equipment rooms such as server rooms, mechanical, electrical and telephone rooms are controlled by the local override switches, and vacancy sensors. Provide emergency lights in these area.

Project Map

FRANCIS KRAHE & ASSOCIATES

LIGHTING DESIGN REPORT

LOS ANGELES AERIAL RAPID TRANSIT | LOS ANGELES, CA | MAY 10, 2022

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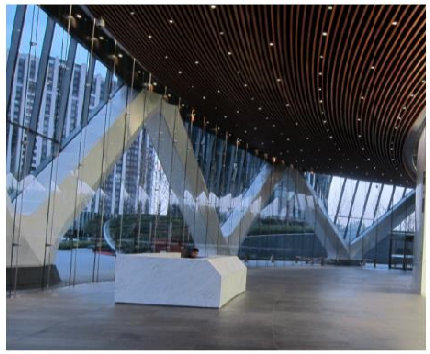
Transit System Design Concept

Precedent Images:
These images serve as inspiration anc examples of appropriate lighting qualities of the Los Angeles Aerial Rapid Transit system. Concepts shown here are interpreted and adapted to suit the project as shown in subsequent pages of this report.











LIGHTING DESIGN REPORT

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Station Interior

ALAMEDA STATION

CHINATOWN / STATE PARK STATION

DODGER STADIUM STATION

Lighting design of the stations emphasizes the form of the roof with low brightness light sources which indirectly illuminate the surface of the roof structure and integrate with the scale and pattern of the roof skin and structure.

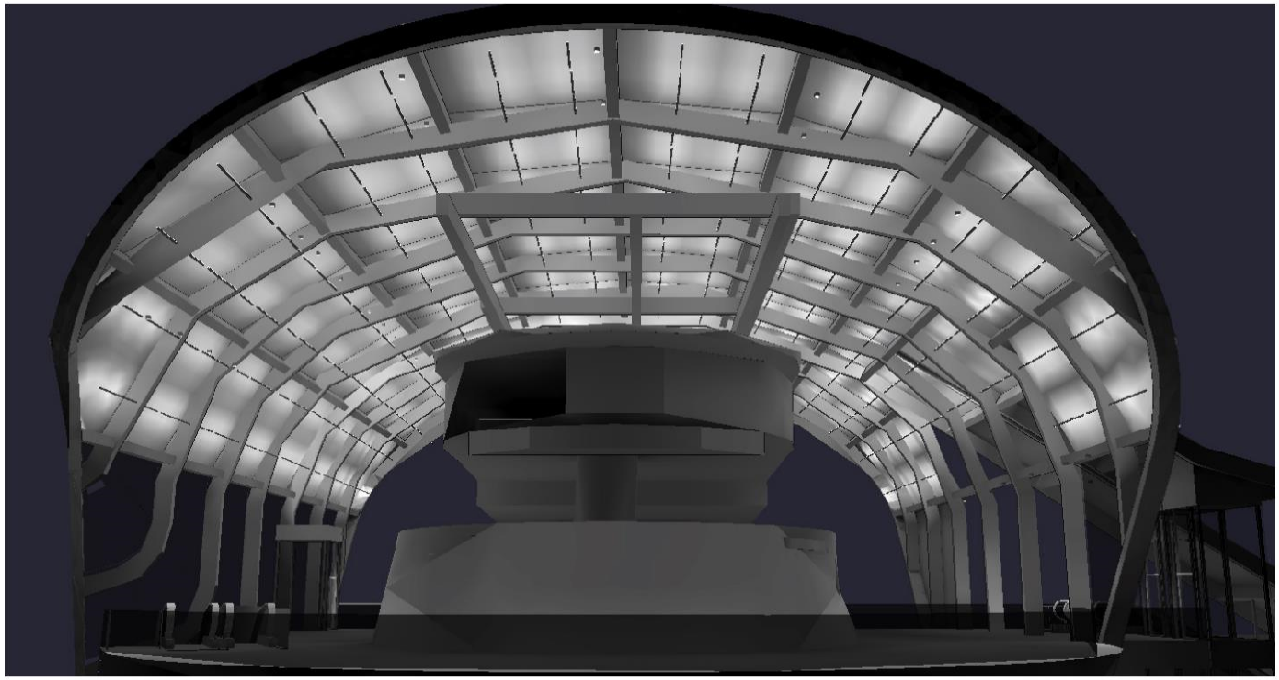
The lighting system provides required illuminance at the stairs (10fc minimum), escalators (5 fc minimum), station platform (20 fc average), cabin threshold (10 fc minimum).

Canopy Lighting

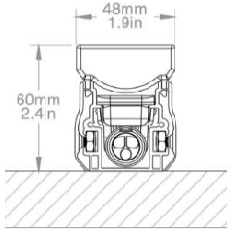
Linear indirect lighting suspended between the structural framing members illuminate the adjacent interior roof surface within that structural bay. Lowest horizontal structural member supports one linear light, aimed down. Fixture output shall be limited to 125 lumens per foot.

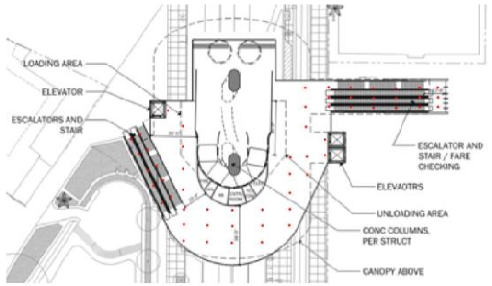
General Down Lighting

Small surface mount downlights attached to the structural members suppliment lighting levels at the platform, stairs, escalators, and elevators. Fixtures have narrow beam control and cutoff to prevent glare and light spill to adjacent properties. These downlights provide emegency lighting illuminance in a loss of power situation.











LIGHTING DESIGN REPORT

LOS ANGELES AERIAL RAPID TRANSIT | LOS ANGELES, CA | MAY 10, 2022

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Junction Interior

BROADWAY JUNCTION

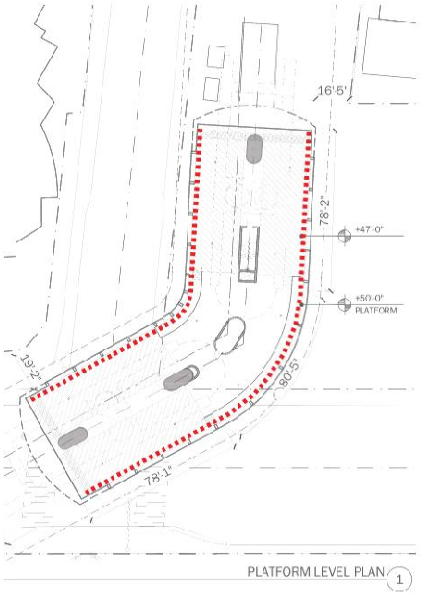
Lighting of the Broadway Junction does not require lighting of the platform or other spaces. Lighting for experiencial and architectural purposes is provided by interior canopy lighting. Emergency lighting would be off during normal operation and non-operation. Emergency lighting is to be only turned on for maintainance and emergencies. All lighting for during normal operation serves only to provide architectural and aesthetic emphasis.

Interior Canopy Lighting

Lighting the interior of the junction provides a welcoming experience as users pass through the junction that would otherwise be dark. Linear lights at either side of the platform level aim up to illuminate the interior of the canopy skin, structure, and ceiling above. Narrow beam control prevents light from shining directly into cabins and creating glare for riders.

Emergency Lighting

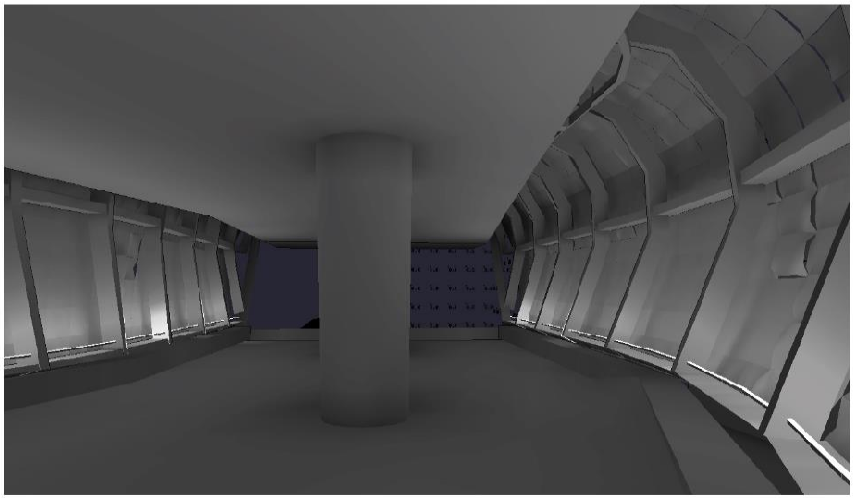
Small point source downlights attached to strucure and walls where needed provide lighting during maintainance or emergencies. Fixtuers are small and tucked up out of view to lessen their visual presence when turned off. Emergency lighting will be turned off during normal operation.



PLATFORM LEVEL PLAN 1







Roof Facade

ALAMEDA STATION

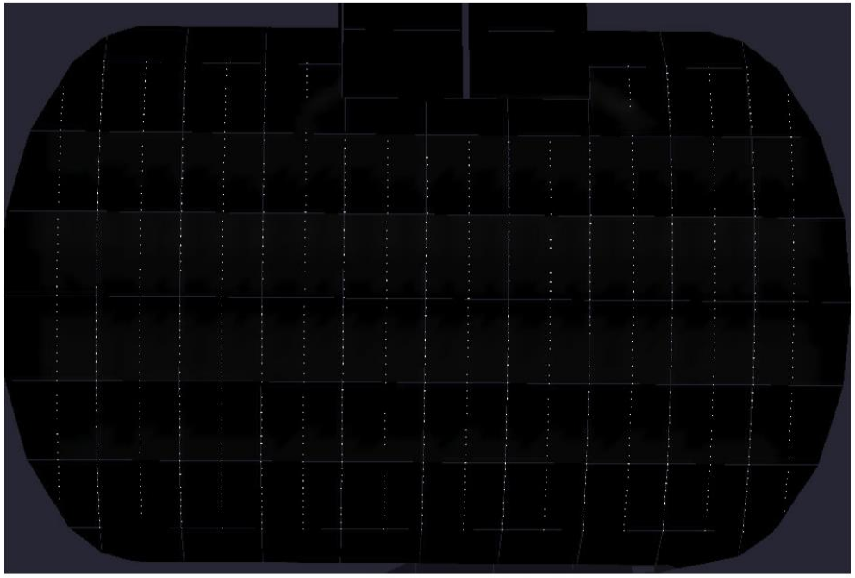
CHINATOWN / STATE PARK STATION

BROADWAY JUNCTION

DODGER STADIUM STATION

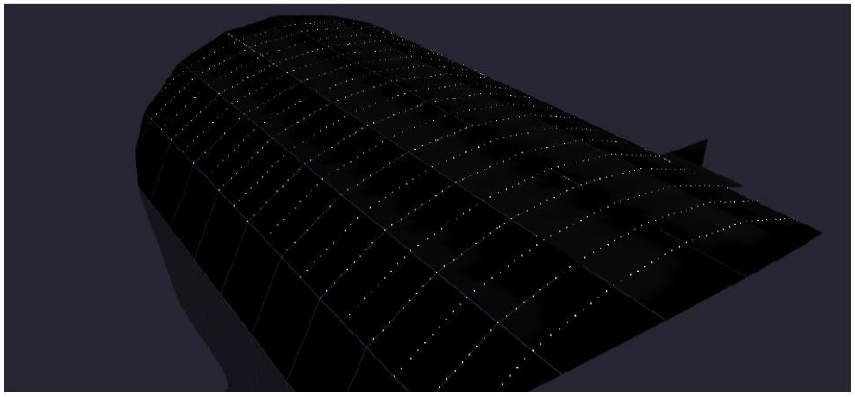
Lighting design emphasizes the sculptural roof form with a pattern of low brightness light sources mounted directly to the roof surface which trace the scale and pattern of the roof skin and structure. Lighting modules occure every 1'-6" on strands strands spaced 7'-6" apart.

The lighting concept provides exterior lighting for the aerial view of the transit system from the cabins, from Dodger Stadium and adjacent hillsides and tall buildings, and from aircraft above. The design concept is to define the roof forms and towers with lighting color and pattern to unify the LA ART system.





Conceptual Reference Image: Roof Facade Lighting Pattern





Platform Art

ALAMEDA STATION

CHINATOWN / STATE PARK STATION

BROADWAY JUNCTION

Lighting design highlights the ceiling of the transit platform art installations and the structural support columns to provide a bright, safe, inviting atmosphere at the street arrival zone. Illuminated surfaces provide comfortable, diffused, indirect light at the sidewalks, entrance to the escalators, stairs, and elevators.

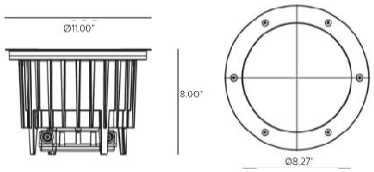
The lighting concept provides consistent exterior lighting to identify the Station locations and access points to reach the platforms. The design concept define the Station structure and surfaces with lighting color and pattern to unify the LA ART system.

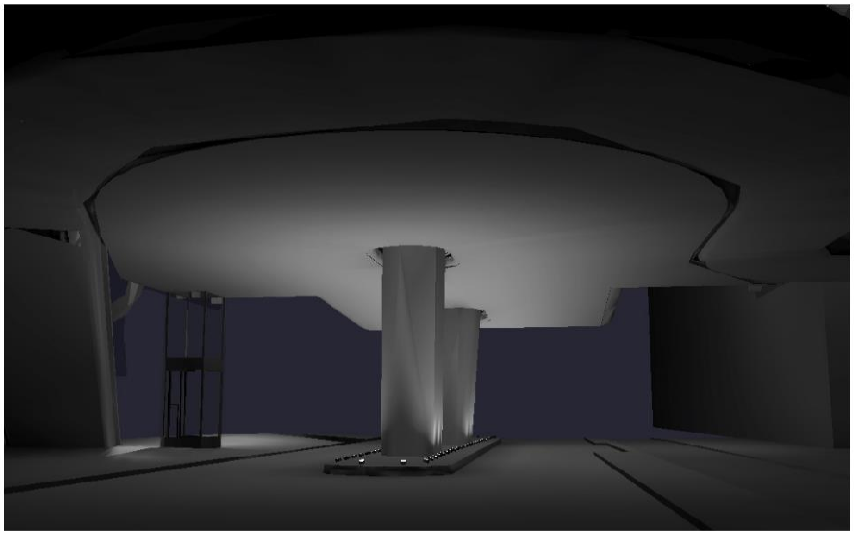


Conceptual Reference Image: Indirect Soffit Uplight









Site & Landscape

Lighting prov des illumination for safe mobility and use within the plazas and park spaces adjacent to the Stations and Towers. Light poles, integrated lighting in walls and seat structures, and landscape lighting provide a safe, inviting atmosphere to facilitate use at night.

The lighting concept provides consistent exterior lighting to identify the spaces associated with the LA ART system.



Conceptual Reference Image: Pavilion & Seating Area



Conceptual Reference Image: Wall Lighting



Conceptual Reference Image: Multihead Pole Lighting



Conceptual Reference Image: Multihead Pole Lighting

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LIGHTING DESIGN REPORT

LOS ANGELES AERIAL RAPID TRANSIT | LOS ANGELES, CA | MAY 10, 2022

Site & Landcape:
Chinatown/ State Park Station



Conceptual Reference Image: Pedestrian Pole Lighting

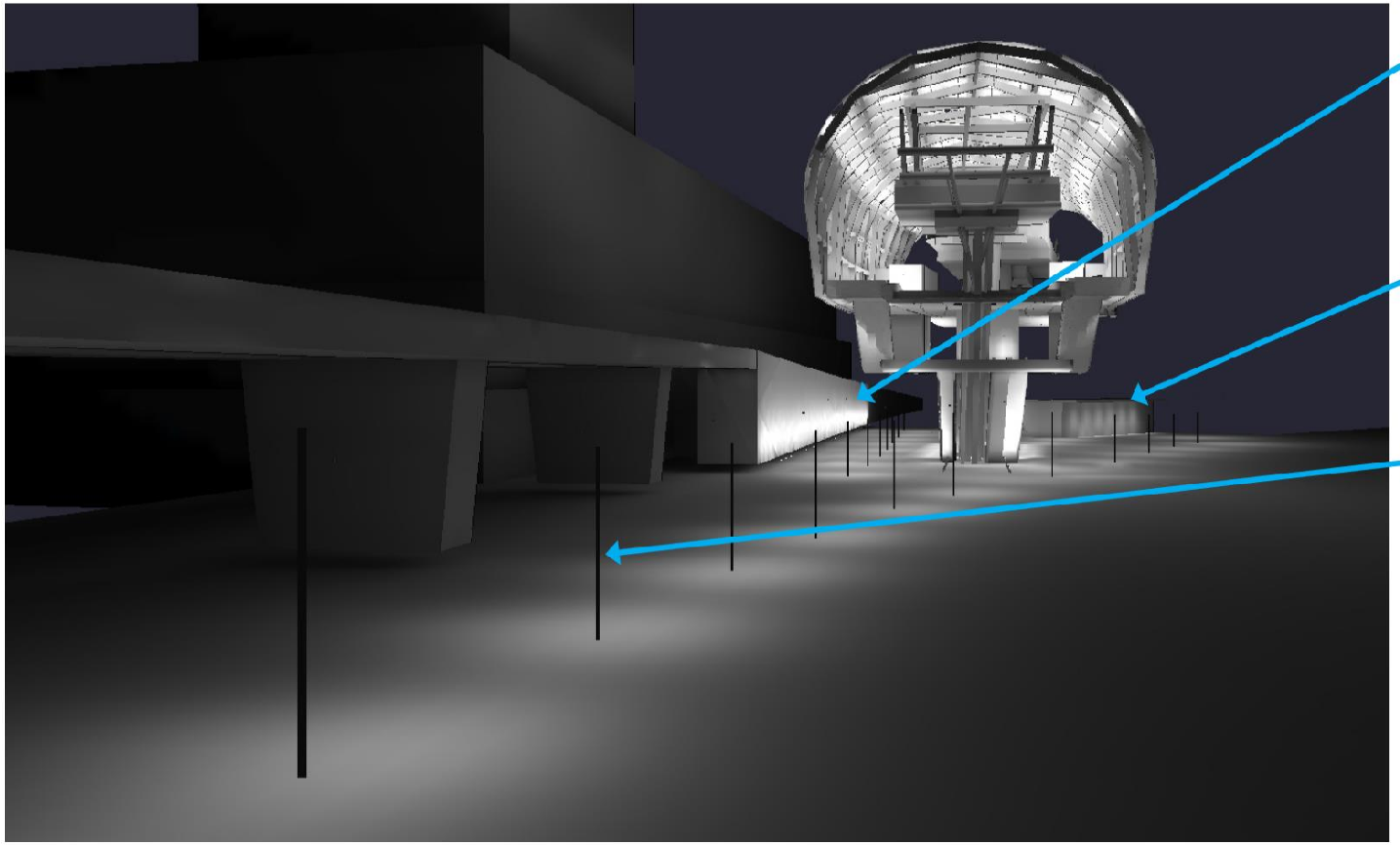


Conceptual Reference Image: Accent Lighting



Conceptual Reference Image: Tree Uplight

Site & Landcape:
Chinatown/ State Park Station









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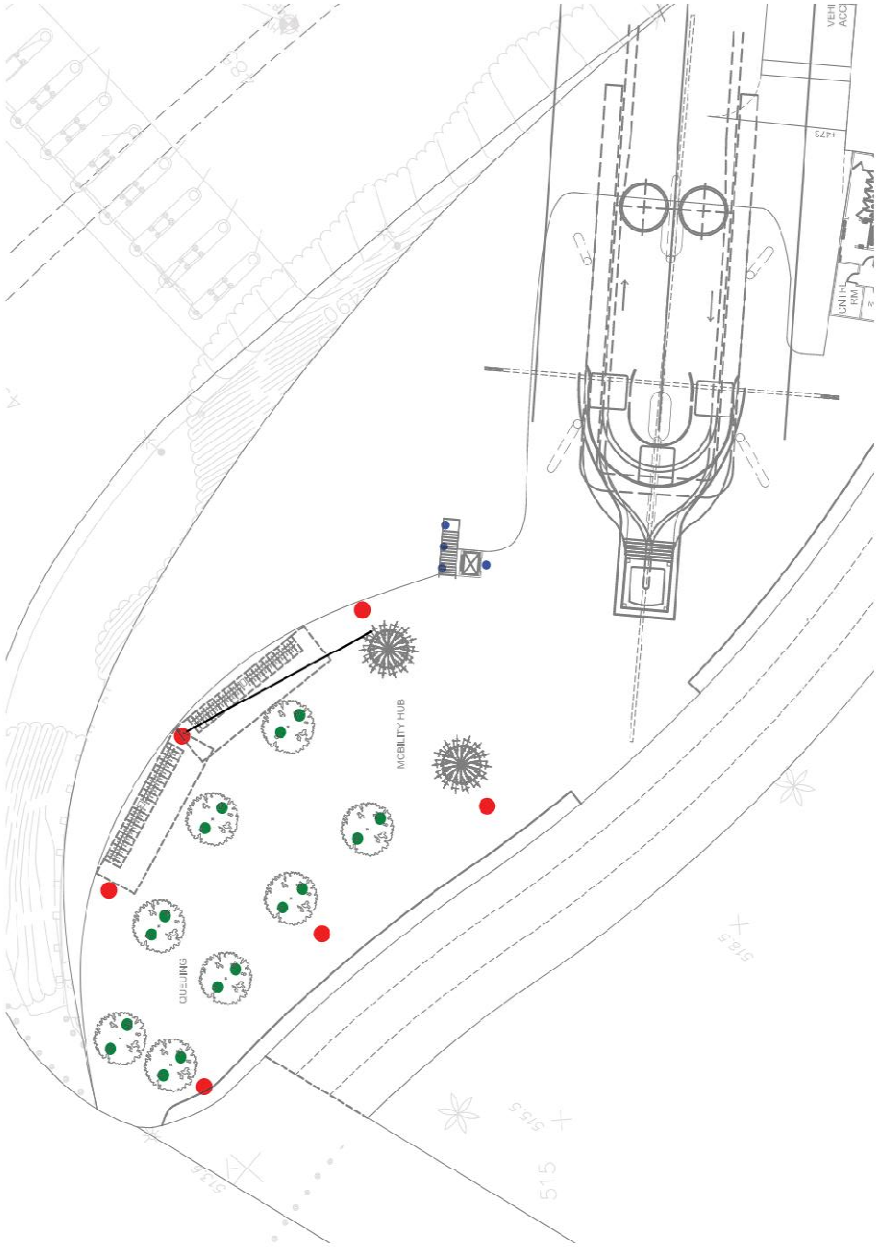
LIGHTING DESIGN REPORT

LOS ANGELES AERIAL RAPID TRANSIT | LOS ANGELES, CA | MAY 10, 2022

Site & Landcape:
Dodger Stadium Station



Tower Facade

ALAMEDA TOWER

ALPINE TOWER

STADIUM TOWER

Lighting design emphasizes the Tower structure and unique shape with a pattern of low brightness light sources mounted directly to the Tower. The lights are recessed in grade to graze up the tower surface and accentuate the articulation of the tower structure.



Conceptual Reference Image: Tower Facade Uplight



ENLARGED GROUND LEVEL PLAN 1

1/16" = 1'-0"





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LIGHTING DESIGN REPORT

LOS ANGELES AERIAL RAPID TRANSIT | LOS ANGELES, CA | MAY 10, 2022

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Cabins

Lighting provides comfortable and safe interior illumination within the Cabins. The main light source consists of concealed low level linear lights. Downlighting increases illuminance of the cabins during loading and unloaded and in emergency situations.

Lighting Fixture Palette

TARGETTI

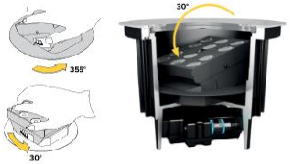
KEPLERO GIMBAL HP Performance Precision Optic

Professional Inground LED Fixture

Concept: 12 LED projector incorporating maximum precision and control for specific aimed illumination of objects.
Housing: 8" tall x 11" diameter die-cast aluminum housing.
Materials: Anodized and powder coated black die-cast aluminum heat sink, PVC installation sleeve and stainless steel (AISI316L) trim ring with extra clear glass (Anti-slip available). *Body completed with marine grade cataphoresis painting treatment suitable for use in marine grade environments. Stainless steel trim will need to be maintained and cleaned regularly to avoid mineral deposits.
Trim: Stainless steel (AISI316L) trim available in: Lithe Textured, decorative ring, with Beveled edge in brushed natural, bronze or black finishes. Features tamper-proof torx screws.
Optic: 12 LED gimbal optical system with three different beam spreads: Narrow Spot 8°, Spot 18° and Flood 30°. Range of motion: 30° tilt on the vertical axis and rotates 355° on the horizontal plane with integrated locking system.
Mounting: Flush and semi-flush installation sleeve with stainless steel extension sleeve or optional raised installation tube for landscape. Fixture includes screw down holes and stainless steel screws for attachment to installation sleeve. Includes optional stainless steel L brackets for mounting support. Installation sleeve required for flush or semi-flush mounting (sold separately).
Driver: Integrated 4/1 driver (Non-dimmable / 0-10V / Reverse Phase / Forward Phase).
Installation: Fixture flush mount installation includes 9" tall x 11" diameter sleeve, extension sleeve for wire slack and accessibility. Fixture is provided with 6ft IP68 connector cable. (Inset burial brass ingrade flex required, sold separately).
Wattage: 37W
Color Temperature: 3000K / 4000K
CRI: R≥4
Lumen Maintenance (L70): 50,000hrs
Calculation for LED fixtures are based on measurements that comply with IES LM-80.
Voltage: Universal Voltage 120-277V AC 50/60Hz
IK Rating: IK10
IP Rating: IP67*, IP68 Tested**
Load Rating: Resistant to static loads up to 4,496lbs in flush mounted cement and pavement installations.
Certifications: cULus listed Wet Location
Tested in accordance with LM-79-08
Energy efficient for California installations.
Warranty: 5 year limited warranty
* Up to 1 METER DEPTH of water for up to a maximum of 30 MINUTES
** Not suitable for submersible installations
*Note: Use in direct contact with salt for extended periods of time or used with harsh detergents.



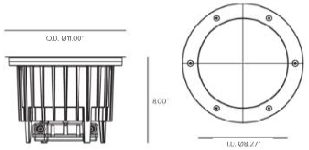
KEP.PRO® Gimbal HP with Clear Lens



Delivered Lumens:	3000K	4000K
Narrow Spot 8° =	2373Lm	2524Lm
Spot 18° =	2205Lm	2346Lm
Flood 30° =	2140Lm	2286Lm

PRODUCT CODE	DRIVER	TYPE	OPTICS	WATTAGE	COLOR TEMP	+	TRIM & INSTALLATION
KPL — KEP_ERO	41 — 4/1 Dimming (Non-Dimming / 0-10V / Reverse Phase / Forward Phase)	GHP — Gimbal HP	NS — Narrow Spot 8°	L1 — 37W	30 — 3000K		Required (See Pg 2)
			SP — Spot 18°		40 — 4000K		
			FL — Flood 30°				

Views

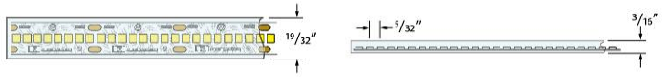


ELITE | TivoTape™ Outdoor (factory installed power lead wires)

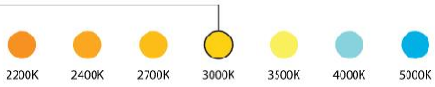
tivoli

HIGH OUTPUT (HO)









Ordering Information

cULus LISTED

PRODUCT CODE		INTENSITY		INSTALL		LED COLOR		VOLTAGE
TPLE	-	HO	-	O	-		-	24
TPLE= TivoTape ELITE		HO = High Output		O = Outdoor		22 = 2200K 24 = 2400K 27 = 2700K 30 = *3000K 35 = 3500K 40 = 4000K 50 = 5000K		24 = 24V DC

TivoTape Run Lengths & End Preps
*Please specify length of run with quantity of runs) and end prep type at time of ordering.
(Note: Only (1) end prep needed for each run (see page 19)

*This product is in compliance with the California Energy Code Title 24 JA8-20 6 in 3000K and only when incorporating a specific power supply

TARGETTI

KEPLERO ZOOM Flexibility

Professional Inground LED Fixture

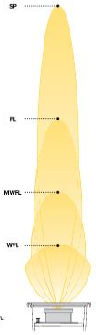
Concept: Professional single LED COB fully adjustable landscape inground fixture. As landscaping features and changes, shape and size zoom optics can be adjusted in beam spread and direction to adjust with the changing landscape.
Housing: 8" tall x 11" diameter die-cast aluminum housing.
Materials: Anodized and powder coated black die-cast aluminum heat sink with PVC installation sleeve and stainless steel (AISI316) trim ring with extra clear glass anti-slip available). [A]Body completed with marine grade cataphoresis suitable for use in marine grade environments. Stainless steel trim will need to be maintained and cleaned regularly to avoid mineral deposits.
Trim: Stainless steel (AISI316L) trim available in ultra flat round decorative ring, with beveled edge in brushed natural, bronze or black finishes. Features tamper-proof torx screws.
Optic: Zoom optical system which slides and locks on vertical axis according to four different positions to provide four different beam spreads: 19°, 26°, 42° and 64° beam spreads. Light beam adjusted horizontally ±79° from center to change adjacent illumination pattern by 20° narrow and rotated 360° on the horizontal plane with integral locking system.
Mounting: Flush and semi flush installation sleeves with stainless steel extension sleeve or optional raised installation tube for linescape. Fixture includes screw down holes and stainless steel screws for attachment to installation sleeve. Includes optional stainless steel L brackets for mounting support. Installation sleeve required for flush or semi-flush mounting (sold separately).
Driver: Integrated 4/1 driver Non-dimmable / 0-10V / Reverse Phase / Forward Phase.
Installation: Fixture flush mount installation includes 9" tall x 11" diameter sleeve, extension sleeve for wire slack and accessibility. Fixture is provided with 6ft IP68 connector cable, direct burial brass ingrade jbox (required, sold separately).
Wattage: 36W
Color Temperature: 2700K / 3000K / 3500K / 4000K
CRI: Ra84 (2700K, 3000K, 4000K) / 90Ra (3500K)
Lumen Maimenance (L70): 50,000hrs
Calculation for LED fixtures are based on measurements that comply with IES LM-80.
Voltage: Universal Voltage 120-277V AC 50/60Hz
IK Rating: IK10
IP Rating: IP67*, IP68 Tested**
Load Rating: Resistant to static loads up to 4,496lbs in flush mounted cement and pavement installations.
Certifications: cULus Wet Listed E477426
Tested in accordance with LM-79-08
Energy efficient for California installations.
Warranty: 5 year limited warranty
* Up to 1 METER DEPTH of water for up to a maximum of 30 MINUTES
** Not suitable for submersible installations
^Not to be in direct contact with salts for extended periods of time or used with corrosive agents.



KEPLERO® Zoom with Clear Lens



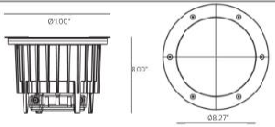


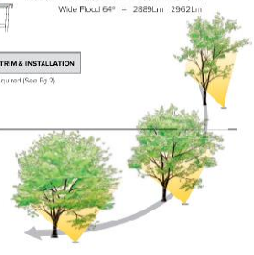


Delivered Lumens:	3000K	4000K
Spot 19°	1666Lm	1708Lm
Flood 25°	2205Lm	2261Lm
Medium Wide Flood 42°	2756Lm	2826Lm
Wide Flood 64°	2889Lm	2962Lm

PRODUCT CODE	DRIVER	TYPE	WATTAGE	COLOR TEMP	+	TRIM & INSTALLATION
KPL — KEPLERO	41 — 4/ Dimming (Non-Dimming / 0-10V / Reverse Phase / Forward Phase)	ZM — Zoom	L2 — 36W	27 — 2700K 30 — 3000K 35 — 3500K 40 — 4000K		Required (See Pg 2)

Views





TARGETTI

KEPLERO WALL WASHER

Professional Inground LED Fixture

Concept: Single COB LED inground wall washer.
Housing: 8" tall x 11" diameter die-cast aluminum housing.
Materials: Anodized and powder coated black die-cast aluminum heat sink with PVC installation sleeve and stainless steel (AISI316L) trim ring with extra clear glass anti-slip available). [A]Body completed with marine grade cataphoresis suitable for use in marine grade environments. Stainless steel trim will need to be maintained and cleaned regularly to avoid mineral deposits.
Trim: Stainless steel (AISI316L) trim available in ultra flat round decorative ring, with beveled edge in brushed natural, bronze or black finishes. Features tamper-proof torx screws.
Optic: Wall Wash 108° x 36° optical unit includes acrylic lens, a high reflectance asymmetrical anodized aluminum reflector and integral holographic filter for even illumination of vertical surfaces as well as excellent light diffusion at ground level. This unique reflector system allows the Keplero Wall Wash fixtures to be installed at an unparalleled 1:5 ratio for completely uniform illumination on the vertical surface. Range of aiming +/- 15° anti-rotation on the vertical axes and rotates 360° on the horizontal plane with integrated locking system.
Mounting: Flush and semi-flush installation sleeves with stainless steel extension sleeve or optional raised installation tube for linescape. Fixture includes screw down holes and stainless steel screws for attachment to installation sleeve. Includes optional stainless steel L brackets for mounting support. Installation sleeve required for flush or semi-flush mounting (sold separately).
Driver: Integrated 4/1 driver (Non-dimmable / 0-10V / Reverse Phase / Forward Phase).
Installation: Fixture flush mount installation includes 9" tall x 11" diameter sleeve, extension sleeve for wire slack and accessibility. Fixture is provided with 6ft IP68 connector cable, direct burial brass ingrade jbox (required, sold separately).
Wattage: 36W
Color Temperature: 2700K / 3000K / 3500K / 4000K
CRI: Ra84
Lumen Maintenance (L70): 50,000hrs
Calculation for LED fixtures are based on measurements that comply with IES LM-80.
Voltage: Universal Voltage 120-277V AC 50/60Hz
IK Rating: IK10
IP Rating: IP67*, IP68 Tested**
Load Rating: Resistant to static loads up to 4499lbs in flush mounted cement and pavement installations.
Certifications: cULus Wet Listed E477426
Tested in accordance with LM-79-08
Energy efficient for California installations.
Warranty: 5-year limited warranty
* Up to 1 METER DEPTH of water for up to a maximum of 30 MINUTES
** Not suitable for submersible installations
^Not to be in direct contact with salts for extended periods of time or used with corrosive agents.





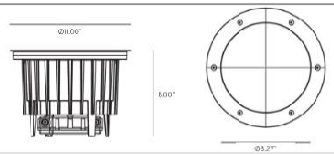




Delivered Lumens:	3000K	4000K
Wall Wash	2318_m	2376_m

PRODUCT CODE	DRIVER	TYPE	WATTAGE	COLOR TEMP	+	TRIM & INSTALLATION
KPL — KEPLERO	41 — 4/ Dimming (Non-Dimming / 0-10V / Reverse Phase / Forward Phase)	WW — Wall Wash	L2 — 36W	27 — 2700K 30 — 3000K 35 — 3500K 40 — 4000K		Required (See Pg 2

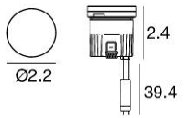
Views



Orma Trimless Fixed | Up-Light | powerLED

4400 lb





C.C. 4W DC - 350mA			Cct	Im S - D	Optic
Glass Alu	E82657		M 2700	490 - 288	15 Spot -
Glass Alu	E82658	HC	W 3000	490 - 288	25 Elliptical* -
Glass Alu	E82659	DL	N 4000	529 - 311	30 Flood -
					60 W.Flood -

*Elliptical available with E82657 only.

Power supply options (remote only)

ECO30W-350
0-10V EldoLED
ECOdrive 30W
for 1-3 fixtures

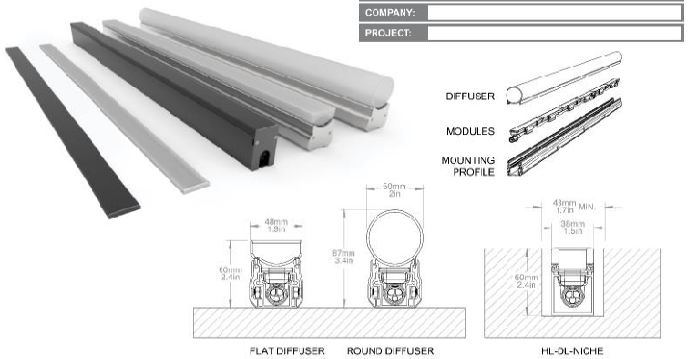
SOLO50W-350
0-10V EldoLED
SOLOdrive 50W
for 1-6 fixtures

SOLO100W-350
0-10V EldoLED
SOLOdrive 100W
for 1-12 fixtures

HL-DL INFINITY COLOR-AMP GVA LIGHTING

Direct View Architectural Delineation LED System — PRODUCT SPECIFICATION SHEET

DATE:
TYPE:
COMPANY:
PROJECT:



FEATURES:

Lighting Performance:
- Up to 7,300 cd/m²
- 16 x Monochromatic LEDs or 16 x RGBW clusters per 300mm (1ft)

Mechanical Details:
- Through-wiring via sealed snap-in connectors
- IP66 sealed body design
- 5W maximum power consumption per 300mm (1ft); 16W per 1m (3ft)
- Flame retardant polymeric body
- A41 Architectural grade anodized mounting profile

Control: Addressable per 300mm (1ft) module*
Projected Lifetime: L70 > 115,000hrs @ ta = 25°C (77°F)
Operating Temperature: -40°C (-40°F) to +50°C (122°F)

OPTIONS:

Power Source: INFINITY® Technology (INF) for exceptionally long runs from a single power source, Extra Low Voltage (ELV) for short runs, or Extra Low Voltage 48VDC (ELV48) for short runs dimmable by circuit; remote power supplies
LED Color: Range of LED colors available
Control: On/Off or DMX, DALI or 0~10V control through GVA Power-Data Equipment (0-10V dimmable by circuit for ELV48)
Diffusers: White round or white flat UV stable and impact resistant PMMA diffusers; white or black Niche cover lens options (back lens not for use with color LEDs).
Body Colors: Clear matte anodized standard profile, clear matte or black matte anodized NICHE profile
Accessories:
- End caps available for additional protection
- Connector caps available to prevent dust and water ingression

SPECIFICATION LOGIC: HL MODULE

FAMILY	NOMINAL LENGTH (mm)	LED COLOUR		VOLTAGE	BEAM ANGLE (FWHM)	POWER	IP RATING
HL	300 - 1 Module 1500 - 4 Modules	2200K	RD - Red	ELV - 12VDC-60VDC	120 - 120°x120°	5W 5W	IP66
		2700K	GR - Green	ELV48 - 48VDC[3]			
		3000K	BL - Blue	INF - 380VDC			
		3500K	YL - Yellow				
		4000K	AM - Amber[2]				
		5000K	RGB-HO-CA				
		6500K	RGBW-HO-CA[1]				
		DWT - Dynamic White					

PRODUCT CONFIGURATION

HL						IP66

1. Default white is 3000K. Contact factory for alternate options.
2. Under development. Contact factory for details and lead times.
3. For use only with monochromatic configurations in above applications.
4. Not available with ELV48 48VDC configuration

GVA Lighting, Inc 2771 Bristol Circle, Oakville, Ontario L6H 6X6
Tel: + 1 905 669 6641 Email: info@gvalighting.com

TARGETTI

DART Medium

Adjustable Professional Projector Flood Light

Concept: Small footprint, adjustable LED projector.
Housing: Die-cast aluminium body and joints for maximum heat dissipation.
Materials: Die-cast aluminum powder coated housing. *Consult factory for use in marine grade environments.
Optics: NSP use high efficiency LED Emitter SP, FL, MWFL, WFL ASYM use high efficiency LED Chip on Board. Different optical systems depending on beam angles. Equipped with lenticular lenses for the NSP version, with a hybrid optic system for the SP and FL versions or curved faceted precision optics in high specularity anodised aluminium for the MWFL and WFL versions. ASYM version with high luminous efficiency pure aluminum reflector.
Mounting: Adjustable up to ±45° on the horizontal plane and +90°/-45° on the vertical plane with anti-locking set screw. Can be installed directly to mounting surface.
Installation: Cable with 10 1.5 J00W 15-6 cable end DSMT anti-wicking quick disconnect: (black = line voltage / white = neutral / green = ground / red = optional for long distances, contact factory / purple = positive 0-10V / Grey = negative 0-10V, 600V rated.
Finish: Textured Standard Finishes — Ferrite Grey / Heritage Brown / Bronze RAL 8019 / White / Black / Sandstone Grey
Driver: Integrated 4L d river (Non-dimmable / 0-10V / Reverse Phase / Forward Phase)
Wattage: 19W (NSP) / 36W nominal (SP / FL / MWF / WFL / NASYM / ASYM)
Color Temperature: 2700K / 3000K / 3500K / 4000K
CRI: Ra84, Ra90 available upon request
Lumen Maintenance (L70): 50,000hrs
Calculation for LED fixtures are based on measurements that comply with IES LM-80.
Voltage: Universal Voltage 120-277V AC 50/60Hz
IK Rating: IK10
IP Rating: IP66
Certifications: cULus Wet Locator Listed E488257
Tested in accordance with LM-79-08
Energy efficient for California installations.
Warranty: 5 year limited warranty
*Consult factory for use in marine grade environments. Not to be in direct contact with salt for extended periods of time or used with corrosive agents.



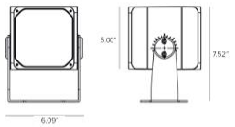
Delivered Lumens:	3000K	4000K
Narrow Spot 10°	1008Lm	1068Lm
Spot 19°	2437Lm	2469Lm
Flood 33°	2286Lm	2344Lm
Medium Wide Flood 48°	3369Lm	3470Lm
Wide Flood 62°	3389Lm	4195Lm
Asymmetric	3151Lm	3229Lm
Narrow Asymmetric	3497Lm	3586Lm

PRODUCT CODE	DRIVER	FINISH	WATTAGE	OPTICS	COLOR TEMP	+	POLE MOUNTING OPTION
DAM – Dart Medium	I1 – 4L Dimming (Non-Dimming / 0-10V / Reverse Phase / Forward Phase)	FE – Ferrite Grey HB – Heritage Brown BZ – Bronze RAL8019 WT – White Textured BT – Black Textured SG – Sandstone Grey	L1 – 19W L2 – 36W*	NS* – Narrow Spot 10° SP – Spot 19° FL – Flood 33° MF – Medium Wide Flood 48° WF – Wide Flood 62° 45 – Asymmetric NA – Narrow Asymmetric	27 – 2700K 30 – 3000K 35 – 3500K 40 – 4000K		PM – Pole Mount *25ft lead wire in, cable with quick disconnect to be used with pole mounting option.

*NS optic not available in 2700K or 3500K.



Views



Technical Summary	CarlStahl ARC GmbH, Siemensstrasse 2, D-73079 Süssen Tel.: +49 7162- 948150-300 Email: x-led@carlstahl-arc.com
	X-LED MESH

Scope of supply:

- Feasability study
- Preliminary Design / Engineering
- Planning / Development
- Static analysis
- LED components / Hardware / Software
- Substructure / Mounting
- Assembly / Supervision

USP's:

- low self-weight
- high transparency
- 3D-modeling
- no limit in size
- video compatible
- free definition of pixel size between 50 and 300mm
- high tensile strength of stainless steel wire mesh
- huge span width without intermediate connections
- easy material handling and installation



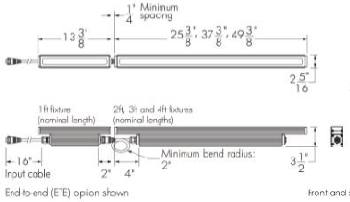
Specification Sheet

lumenfacade
LOG
WHITE AND STATIC COLORS

Project Name _____ Qty _____

Type _____ Catalog / Part Number _____



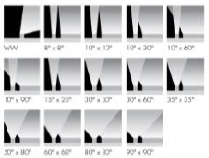


Photometric Summary

	Delivered output (lm)	Intensity (peak cd
WW	3,592	8,159
8"x8"	4,045	77,896
10"x10"	3,830	38,346
10"x30"	3,885	30,055
10"x60"	3,984	17,735
10"x90"	3,576	7,897
15"x25"	3,880	24,730
30"x30"	3,765	14,726
30"x60"	3,848	5,106
35"x35"	3,921	9,999
50"x80"	3,767	3,449
60"x60"	3,435	3,007
80"x80"	3,881	2,530
90"x90"	3,588	1,886

Based on HO 4000K, 4ft (1219mm) configuration.
Photometric performance is measured in compliance with IESNA LM79-08.

Optics



Description

The Lumenfacade is a high-performance linear LED luminaire for grazing or floodlighting exterior walls and facades. Featuring second-generation LED technology, the luminaire is available in 12 in, 24 in, 36 in or 48 in sections, and can be configured with a wide number of options, including: optics for grazing or flood lighting; a choice of outputs (ASHRAE 5 W/ft, HO 8.5 W/ft or HO 15.25 W/ft); various color temperatures or static colors; various mounting options, finishes, accessories and controls. The Lumenfacade is also available with a unique asymmetric wallwash distribution, providing exceptional uniformity and brightness for walls and signage.

Features

Color and Color Temperature	2200K, 2700K, 3000K, 3500K, 4000K, Red, Green, Blue
Length (nominal)	12 in, 24 in, 36 in, 48 in
Optics	Asymmetric Wallwash, 8" x 8", 10" x 10", 10" x 30", 10" x 60", 10" x 90", 15" x 25", 30" x 30", 30" x 60", 35" x 35", 50" x 80", 60" x 60", 80" x 80", 90" x 90"
Options	End-fed configuration (factory installed 16 in black input cable included). Corrosion-resistant coating for hostile environments. 3G ANSI C136.31-2010 Vibration Rating for bridge applications. CE (certification covers European Economic Area)
Power Consumption	5 W/ft (meets ASHRAE standards for linear lighting on building facades - not available for 12 in fixture lengths), 8.5 W/ft (HO version), 15.25 W/ft (HO+ version). Typically 20% higher for 12 in fixture lengths
Warranty	5-year limited warranty

Performance

Illuminance at Distance	Minimum 1 fc at 133 ft (HO 4000K, 48 in fixture, 10° x 60°, DMX/RDM)
Color Consistency	3 SDCM, 3 SDCM (2200K)

lumenpulse
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www.lumenpulse.com/product/1938

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M3 - R70

Compact floodlight

Type:
BEGA Product:
Project:
Voltage:
Color:
Options:
Modified:

Housing: Luminaire constructed of a one piece die-cast aluminum housing. LED module paired with inner reverse-tapered casting to provide maximum heat transfer to outer housing. Die castings are marine grade copper free (≤ 0.3% copper content) A360.0 aluminum alloy.

Enclosure: Optical system consists of a reflector of pure anodized aluminum. The lens and optical assembly are secured by a die cast aluminum trim ring using (3) stainless steel captive fasteners.

Mounting: Provided with a ½" I.P.S. stainless steel nipple for direct attachment to cast boxes or other accessories.

Electrical: 19.2W LED luminaire. 22 total system watts, -40°C start temperature. Integral 120V or 277V electronic LED driver, 0-10V, TRIAC and ELV dimmable. The LED module and driver are mounted on a removable inner assembly for easy replacement. Standard LED color temperature is 4000K with a 90 CRI. Available in 3000K (90 CRI), add suffix K3 to order.

Note: Due to the dynamic nature of LED technology, LED luminaire data in this catalog is subject to change at the discretion of BEGA-US. For the most current technical data, please refer to www.bega-us.com.

Finish: All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. These luminaires are available in four standard RFGA colors: Black (R 9); White (WHT); Bronze (R27); Silver (SI V). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

CSA certified to U.S. and Canadian standards for wet locations. Protection class IP66.

Weight: 4.6 lbs

EPA (Effective projection area): 0.27 sq. ft.

Luminaire Lumens: 1782



Compact floodlight • **wide beam**

Lamp		β	A	B	C
77 735	19.2 W LED	44°	6¼	3½	6½

Accessories
70 060 78 757

Exchangeable lenses: flat beam; 80° glare shield; β = beam angle



BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 FAX (805) 566-9474 www.bega-us.com
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FRAXION®3 SLIM ADJUSTABLE

PROJECT NAME:	TYPE:



Lots of light in an under-three-inch profile, with multiple design and installation options, ideal for corporate offices and retail settings.

ORDERING INFORMATION - DOWNLIGHT / HOUSING

JA8-2019 INDICATED BY SHADING

SHAPE	TRIM	FATING	TYPE	FLANGE FINISH	BAFFLE FINISH	LUMEN PACKAGE	CCT	OPTIC	INSTALL TYPE	CEILING THICKNESS	DRIVER	EFFECTS DEVICE
FSR Round FSS Square	M Nordlong T Timless Prwall N Timless Flood* *Not available for Wall (wall-in)	D Dry/Damp W Wet * *Requires insulated ceiling (up to service or semi-hous)	A Adjustable	WH White BK Black PR Primer AM Cashmere Gold AG Satin Silver BB Burnt Bronze BR Tmless/ (Required or tmless) CF Custom Finish * (Consult Factory)	WH White BK Black PR Primer AJ Cashmere Gold AG Satin Silver BB Burnt Bronze C* Custom Finish * (Consult Factory)	STATIC WHITE RC12A 80+ CRI Dist. Lumens - 795 RC11A 90+ CRI Dist. Lumens - 1095 RC22A 80+ CRI Dist. Lumens - 1506 RC13A 90+ CRI Dist. Lumens - 693 RC11A 90+ CRI Dist. Lumens - 936 RC12A 90+ CRI Dist. Lumens - 1291 RC13A 90+ CRI Dist. Lumens - 608 RC12A 90+ CRI Dist. Lumens - 823 RC12A 90+ CRI Dist. Lumens - 1151* *Not available for RC1 housing) WARMDIM RW11A 90+ CRI Dist. Lumens - 857 Incandescent Profile RW13A 90+ CRI Dist. Lumens - 912 Halogen Profile *SEE PAGE 3 FOR DETAILED WARM DIM PROFILE COMPARISON. TUNABLE WHITE RT11A RC+ CRI Dist. Lumens - 950* *Only available in remote housings. *ALL DELIVERED LUMEN OUTPUTS AND T24 COMPLIANCE REFLECT 3000K PAIRED WITH 40° OPTIC AND SOFT TOOLS LENS. REFERENCE PAGE 3 FOR ADDITIONAL T24 COMPLIANT CONFIGURATIONS	22 2200K* *Only available with 10/20/40 and RC11A/12 27 2700K 30 3000K 35 3500K 40 4000K WL 2200K - 1800K WD 3000K - 1800K TW 5000K - 2700K	10 10° * Only available with 3000 CA, 90+ CRI and WWC BA. Not available with 2200K. 15 15° 20 20° 40 40° 60 60° 85 85° * Uses 60° optic and optional configuration 14 (WD11) to achieve 85° beam spread. 10 10° 22 22° 40 40° 60 60° 85 85° * Uses 60° optic and optional configuration 14 (WD11) to achieve 85° beam spread. 22 22° 40 40° 60 60° 85 85° * Uses 60° optic and optional configuration 14 (WD11) to achieve 85° beam spread.	INTEGRAL DRIVER C C Y TBC C C Airlight * *Chicago Plenum, Airlight & Title 24 compliant housing REMOTE DRIVER V C Remote W WC Remote D C Airlight, Remote *Chicago Plenum, Airlight & Title 24 compliant housing	1 .350" - 1.375" 2 1.375 - 2.125" * Only available with 10° optic T .350" - 1.375" * Includes adjustable housing height bracket, recommended for any T-Grid or Furring Channel applications.	INTEGRAL PH 13.0W max, 2% 1700* * Not available for RC12A, RC12A, or 1901 lm or less. 10° optic only available with 10° optic SD 0-10V Analog, LOG 1% 120 or 277V SN 0- 10V Analog, LIN 1% 120 or 277V LP Luron Hi-Lume Premier Ecosystem 0.1% Fade to Black, 120 or 277V * Not available for RC12A, RC12A, or 1901 lm or less. (Hybrid types) REMOTE 120V L3 Luron Hi-Lume 1%-7 wire REMOTE(120-277V) EB eldoLED 500.0ma 0.1%-10V-LOG EN eldoLED 500.0ma 0.1%-10V-LIN ED eldoLED 500.0ma 0.1% DALI_DG TUNABLE WHITE REMOTE(120-277V) DG eldoLED DUALdrive 0.1%-0.10V-LOG DN eldoLED DUALdrive 0.1%-0-10V-LIN DD eldoLED DUALdrive 0.1% DALI_DG	STANDARD EFFECTS DEVICE DS Soft Focus Lens DD No Lens * *Standard set only available with 10° optic. No available for Wet Location or Airtight Housings ALTERNATE EFFECTS DEVICE DB Clear Apex Lens * *Not available for Warm Dim D5 Frosted Glass Lens D8 Frosted Soft Focus Lens 1A Wide Distribution Lens * *Requires set only available for 85° beam spread 25 Frosted Linear Spread Lens 29 Adjustable Honeycomb Louver and Soft Focus Lens * *Not available for Wet Location or Airtight Housings

(WH) White Powder Coat	(BK) Black Powder Coat	(AJ) Cashmere Gold Powder Coat	(AG) Satin Silver Powder Coat	(BB) Burnt Bronze Powder Coat

PART NUMBER NOTES

- Housing and trim ship as e.g., F3RM1A-WHWH-90C-0°2-3X1-PH*
- Remote driver ships with fixture as e.g. FSF3-RMT-90C-10A-ILZ*

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As part of its policy of continuous research and product development, the company reserves the right to change or withdraw specifications without prior notice.
[PH] +1-210-227-7329
[FAX] +1-210-227-4967

[DATE OF REV: 04.01.2021]

NERI

Project location		Fixture type	
Project name			
Model code #:	Date	Rev.01	03/2020

NEBULA L 16"
Nebula large luminaire head consists of two sources. Each source can be independently configured. The overview below lists available options.

NEBULA L CONFIGURATION # _____
LUMINAIRE HEAD
DOWN LIGHT

Luminaire configuration number to be also written in the lamp post configurator page.



DOWN

NEBULA L LUMINAIRE HEAD DOWN LIGHT

ST
PR
RGBW
A

Aperture lens
Transparent flat glass
Prismatic flat glass

☐ **NEBULA L - EMPTY**

☐ **NEBULA L - ST** COB LED (SINGLE LENS, SILICONE)

Optic system	CCT	Lumen output	Driver function	Aperture lens
☐ Type II	☐ 2,700 K	☐ 2,500	☐ 1-10V	☐ Prismatic flat glass
☐ Type IV	☐ 3,000K	☐ 3,500	☐ DALI	
☐ Type V	☐ 3,500K	☐ 4,500		
	☐ 4,000K			

☐ **NEBULA L - PR** COB LED (REFLECTOR, PC)

Optic system	CCT	Lumen output	Driver function	Aperture lens
☐ 10° Very narrow spot	☐ 2,700 K	☐ 2,500	☐ 1-10V	☐ Transparent flat glass
☐ 20° Narrow spot	☐ 3,000K	☐ 3,500	☐ DALI	
☐ 35° Medium narrow spot	☐ 3,500K	☐ 4,500		
☐ 60° Medium wide flood	☐ 4,000K			

☐ **NEBULA L - RGBW** HIGH POWER LED (SINGLE LENS, PMMA)

Optic system	CCT	Lumen output	Driver function	Aperture lens
☐ 15° Very narrow spot	LINKABW	☐ 666 lm (R)	☐ DMX	☐ transparent flat glass
☐ 25° Narrow spot		☐ 578 lm (G)		
☐ 55° Medium narrow spot		☐ 178 lm (B)		
		☐ 1,000 lm (W)		

☐ **NEBULA L - A** HIGH POWER LED (SINGLE LENS, PMMA)

Optic system	CCT	Lumen output	Driver function	Aperture lens
☐ Type II	☐ Amber	☐ 700 lm (A)	☐ 1-10V	☐ Prismatic flat glass
☐ Type V			☐ DALI	

☐ **NERI A L - SNOOT**

☐ snoot 30°
☐ snoot 45°

☐ **NEBULA L - COLOR**

Powder coating	Anodizing
☐ Neri grey	☐ Silver anodizing
☐ Pure white	☐ God anodizing
☐ White aluminum	☐ Bronze anodizing
☐ Grey aluminum	☐ Brown anodizing
☐ Jet black	☐ Black anodizing
☐ Moss green	

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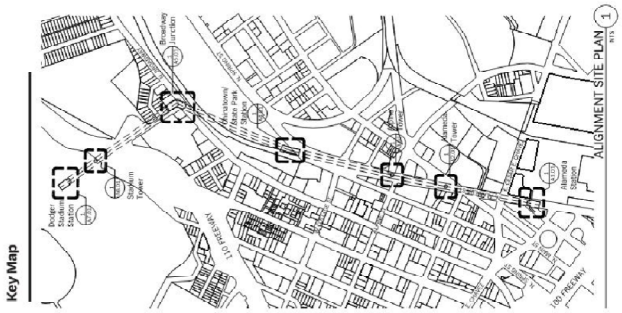
APPENDIX B: Sign Concept Plan

RIOS





LA ART Signage Package

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Example Rendering - Alameda Station

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Example Rendering - Alameda Tower

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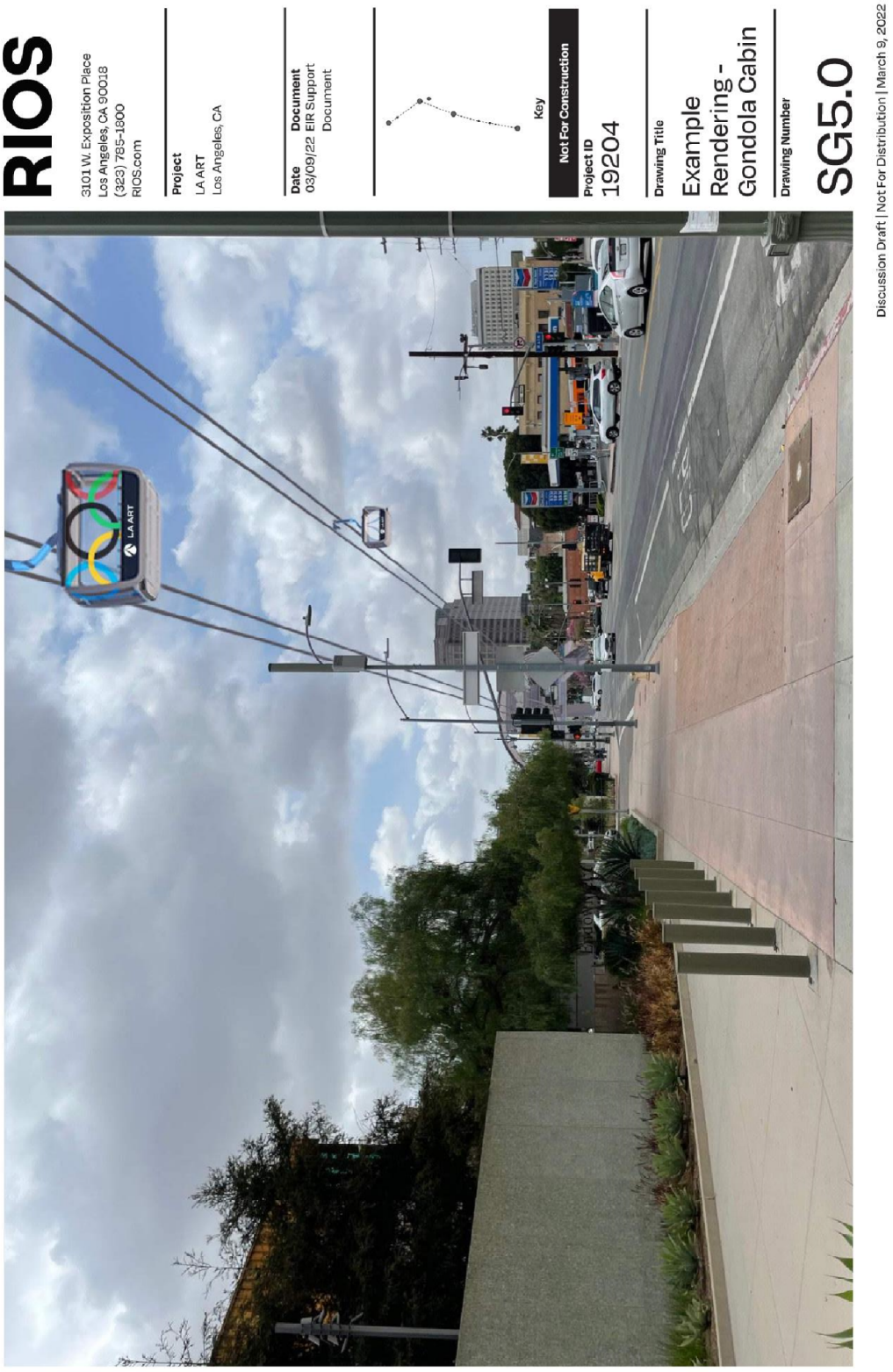
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Example Rendering - Gondola Cabin
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NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

Sign Number	Sign Type	Digital / Static	Illuminated	Single / Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
B1.00	Naming Rights Branding/Identification	Static	yes	Single	Platform-mounted	Exterior	30	10	300	Exterior Platform Branding
B1.01	Naming Rights Branding/Identification	Static	yes	Single	Platform-mounted	Exterior	60	10	600	Exterior Platform Branding
B1.02	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	3	10	30	Pillar Branding
B1.03	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	3	10	30	Pillar Branding
B1.04	Naming Rights Branding/Identification	Static	yes	Single	Platform-mounted	Exterior	20	5	100	Exterior Platform Branding
B1.05	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	30	5	150	Top Support Branding
B1.06	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	25	7	175	Elevator Exterior Identification - Wrap
B1.07	Naming Rights Branding/Identification	Static	yes	Single	Platform-mounted	Exterior	30	10	300	Upper Platform Branding
B1.08	Naming Rights Branding/Identification	Static	yes	Single	Freestanding	Exterior	3	3	18	POI Signage - Vehicular
B1.09	Naming Rights Branding/Identification	Static	yes	Single	Freestanding	Exterior	3	3	18	POI Signage - Vehicular
B1.10	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	25	10	250	Entrance/Exit Signage Escalator Signage
B1.11	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	7	4	28	Entrance/Exit Signage Escalator Signage
B1.12	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	5	2.5	13	Elevator Exterior Signage - Bottom
B1.13	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	2.5	2.5	6	Elevator Interior Signage
B1.14	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	13	Elevator Exterior Signage - Top
B1.15	Naming Rights Branding/Identification	Static	yes	Single	Wrap	Exterior	25	7	175	Elevator Exterior Signage - Wrap
B1.16	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	2.5	2.5	6	Elevator Interior Signage
B1.17	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	13	Elevator Exterior Signage - Top
B1.18	Naming Rights Branding/Identification	Static	yes	Single	Wrap	Exterior	25	7	175	Elevator Exterior Signage - Wrap
B1.19	Naming Rights Branding/Identification	Static	yes	Single	Platform-mounted	Exterior	25	10	250	Upper Platform Branding
B1.20	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	5	10	50	Internal Platform Support Branding
B1.21	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	25	10	250	Side of Glass Escalator Signage
B1.22	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	25	10	250	Side of Glass Escalator Signage
B1.23	Naming Rights Branding/Identification	Digital	self-illuminating	Single	Ceiling-mounted	Interior	20	20	400	LED Canopy

Sign Number	Sign Type	Digital / Static	Illuminated	Single / Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
D1.00	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Pedestrian
D1.02	Wayfinding	Static	yes	Double	Wall-mounted	Exterior	7	3	42	Wayfinding Signage - Escalator Base
D1.03	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Pedestrian
D1.04	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Escalator Base
D1.05	Wayfinding	Static	yes	Double	Wall-mounted	Exterior	3	7	42	Wayfinding Signage - Elevator Base
D1.06	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Elevator Base
D1.07	Wayfinding	Static	yes	Double	Hanging	Exterior	15	3	90	Wayfinding Signage - Escalator Overhead Top
D1.08	Wayfinding	Static	yes	Double	Hanging	Exterior	15	3	90	Wayfinding Signage - Escalator Overhead Mid
D1.09	Wayfinding	Static	yes	Double	Hanging	Exterior	15	3	90	Wayfinding Signage - Escalator Overhead Top
D1.10	Wayfinding	Static	yes	Double	Hanging	Exterior	15	3	90	Wayfinding Signage - Escalator Overhead Mid
G1.00	Marketing and Activation	Digital	self-illuminating	Single	Freestanding	Exterior	10	10	100	10x10 Animation Area for Brand

Total Station Digital Signage Area	500
Total Station Static Signage Area	3,905
Total Station Signage Area	4,405

GROUND LEVEL PLAN

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Alameda Station

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NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
B1.00	Naming Rights Branding/Identification	Static	yes	Single	Platform-mounted	Exterior	20	10	200	Exterior Platform Branding
B1.01	Naming Rights Branding/Identification	Static	yes	Single	Platform-mounted	Exterior	60	10	600	Exterior Platform Branding
B1.02	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	3	10	30	Pillar Branding
B1.03	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	3	10	30	Pillar Branding
B1.04	Naming Rights Branding/Identification	Static	yes	Single	Platform-mounted	Exterior	30	5	130	Exterior Platform Branding
B1.05	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	30	5	130	Top Support Branding
B1.06	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	25	7	175	Elevator Exterior Identification - West
B1.07	Naming Rights Branding/Identification	Static	yes	Single	Platform-mounted	Exterior	30	10	300	Upper Platform Branding
B1.08	Naming Rights Branding/Identification	Static	yes	Single	Freestanding	Exterior	5	3	15	POI Signage - Vehicular
B1.09	Naming Rights Branding/Identification	Static	yes	Single	Freestanding	Exterior	5	3	15	POI Signage - Vehicular
B1.10	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	25	10	250	Entrance/Exit Signage Escalator Signage
B1.11	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	7	4	28	Entrance/Exit Signage Escalator Signage
B1.12	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	5	2.5	13	Elevator Exterior Signage - Bottom
B1.13	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	2.5	2.5	6	Elevator Interio Signage
B1.14	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	13	Elevator Exterior Signage - Top
B1.15	Naming Rights Branding/Identification	Static	yes	Single	Wrap	Exterior	25	7	175	Elevator Exterior Signage - Wrap
B1.16	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	2.5	2.5	6	Elevator Interio Signage
B1.17	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	13	Elevator Exterior Signage - Top
B1.18	Naming Rights Branding/Identification	Static	yes	Single	Wrap	Exterior	25	7	175	Elevator Exterior Signage - Wrap
B1.19	Naming Rights Branding/Identification	Static	yes	Single	Platform-mounted	Exterior	25	10	250	Upper Platform Branding
B1.20	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	5	10	50	Interior Platform Support Branding
B1.21	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	25	10	250	Side of Glass Escalator Signage
B1.22	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	25	10	250	Side of Glass Escalator Signage
B1.23	Naming Rights Branding/Identification	Digital	self-illuminating	Single	Ceiling-mounted	Interior	20	20	400	LED Canopy

Sign Number	Sign Type	Digital / Static	Illuminated	Single / Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
D1.00	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Pedestrian
D1.02	Wayfinding	Static	yes	Double	Wall-mounted	Exterior	7	3	42	Wayfinding Signage - Escalator Base
D1.03	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Pedestrian
D1.04	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Escalator Base
D1.05	Wayfinding	Static	yes	Double	Wall-mounted	Exterior	3	7	42	Wayfinding Signage - Elevator Base
D1.06	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Elevator Base
D1.07	Wayfinding	Static	yes	Double	Hanging	Exterior	15	3	90	Wayfinding Signage - Escalator Overhead Top
D1.08	Wayfinding	Static	yes	Double	Hanging	Exterior	15	3	90	Wayfinding Signage - Escalator Overhead Mid
D1.09	Wayfinding	Static	yes	Double	Hanging	Exterior	15	3	90	Wayfinding Signage - Escalator Overhead Top
D1.10	Wayfinding	Static	yes	Double	Hanging	Exterior	15	3	90	Wayfinding Signage - Escalator Overhead Mid
G1.00	Marketing and Activation	Digital	self-illuminating	Single	Freestanding	Exterior	10	10	100	10x10 Activation Area for Brand

Total Station Digital Signage Area	800
Total Station Static Signage Area	3,505
Total Station Signage Area	4,305

Sign Legend

		digital
Naming Rights Branding/Identification	BX.XX	AX.XX
Directional/Wayfinding	DX.XX	
Marketing and Activation	GX.XX	GX.XX

ROOF PLAN (2)

PLATFORM LEVEL PLAN (1)

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Drawing Title

Alameda Station

Drawing Number

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Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
B1.01	Naming Rights Branding/Identification	Static	yes	Single	Platform-mounted	Exterior	20	10	200	Exterior Platform Branding
B1.01	Naming Rights Branding/Identification	Static	yes	Single	Platform-mounted	Exterior	60	10	600	Exterior Platform Branding
B1.02	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	3	10	30	Pillar Branding
B1.03	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	3	10	30	Pillar Branding
B1.04	Naming Rights Branding/Identification	Static	yes	Single	Platform-mounted	Exterior	30	5	150	Exterior Platform Branding
B1.05	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	30	5	150	Top Support Branding
B1.06	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	25	7	175	Elevator Exterior Identification - Wrap
B1.07	Naming Rights Branding/Identification	Static	yes	Single	Platform-mounted	Exterior	30	10	300	Upper Platform Branding
B1.08	Naming Rights Branding/Identification	Static	yes	Single	Freestanding	Exterior	5	3	15	POI Signage - Vehicular
B1.09	Naming Rights Branding/Identification	Static	yes	Single	Freestanding	Exterior	5	3	15	POI Signage - Vehicular
B1.10	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	25	10	250	Entrance/Exit Signage Escalator Signage
B1.11	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	7	4	28	Entrance/Exit Signage Escalator Signage
B1.12	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	5	2.5	13	Elevator Exterior Signage - Bottom
B1.13	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	2.5	2.5	6	Elevator Interio Signage
B1.14	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	13	Elevator Exterior Signage - Top
B1.15	Naming Rights Branding/Identification	Static	yes	Single	Wrap	Exterior	25	7	175	Elevator Exterior Signage - Wrap
B1.16	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	2.5	2.5	6	Elevator Interio Signage
B1.17	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	13	Elevator Exterior Signage - Top
B1.18	Naming Rights Branding/Identification	Static	yes	Single	Wrap	Exterior	25	7	175	Elevator Exterior Signage - Wrap
B1.19	Naming Rights Branding/Identification	Static	yes	Single	Platform-mounted	Exterior	25	10	250	Upper Platform Branding
B1.20	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	5	10	50	Interior Platform Support Branding
B1.21	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	25	10	250	Side of Glass Escalator Signage
B1.22	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	25	10	250	Side of Glass Escalator Signage
B1.23	Naming Rights Branding/Identification	Digital	self-illuminating	Single	Ceiling-mounted	Interior	20	20	400	LED Canopy

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
D1.00	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Pedestrian
D1.02	Wayfinding	Static	yes	Double	Wall-mounted	Exterior	7	3	42	Wayfinding Signage - Escalator Base
D1.03	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Pedestrian
D1.04	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Escalator Base
D1.05	Wayfinding	Static	yes	Double	Wall-mounted	Exterior	3	7	42	Wayfinding Signage - Elevator Base
D1.06	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Elevator Base
D1.07	Wayfinding	Static	yes	Double	Hanging	Exterior	15	3	90	Wayfinding Signage - Escalator Overhead Top
D1.08	Wayfinding	Static	yes	Double	Hanging	Exterior	15	3	90	Wayfinding Signage - Escalator Overhead Mid
D1.09	Wayfinding	Static	yes	Double	Hanging	Exterior	15	3	90	Wayfinding Signage - Escalator Overhead Top
D1.10	Wayfinding	Static	yes	Double	Hanging	Exterior	15	3	90	Wayfinding Signage - Escalator Overhead Mid
G1.00	Marketing and Activation	Digital	self-illuminating	Single	Freestanding	Exterior	10	10	100	10x10 Activation Area for Brand

Total Station Digital Signage Area	800
Total Station Static Signage Area	3,805
Total Station Signage Area	4,305

Sign Legend

	digital	
Naming Rights Branding/Identification	BX.XX	AX.XX
Directional/Wayfinding	DX.XX	
Marketing and Activation	GX.XX	GX.XX

WEST ELEVATION (2)

NORTH ELEVATION (1)

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Project ID

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Drawing Title

Alameda Station

Drawing Number

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Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
B1.00	Naming Rights branding/identification	Static	yes	Single	Platform-mounted	Exterior	20	10	200	Exterior Platform Branding
B1.01	Naming Rights branding/identification	Static	yes	Single	Platform-mounted	Exterior	60	10	600	Exterior Platform Branding
B1.02	Naming Rights branding/identification	Static	yes	Single	Pillar-mounted	Exterior	3	10	30	Pillar Branding
B1.03	Naming Rights branding/identification	Static	yes	Single	Pillar-mounted	Exterior	3	10	30	Pillar Branding
B1.04	Naming Rights branding/identification	Static	yes	Single	Platform-mounted	Exterior	30	5	150	Exterior Platform Branding
B1.05	Naming Rights branding/identification	Static	yes	Single	Hanging	Exterior	30	5	150	Top Support Branding
B1.06	Naming Rights branding/identification	Static	yes	Single	Wall-mounted	Exterior	25	7	175	Elevator Exterior Identification - West
B1.07	Naming Rights branding/identification	Static	yes	Single	Platform-mounted	Exterior	30	10	300	Upper Platform Branding
B1.08	Naming Rights branding/identification	Static	yes	Single	Freestanding	Exterior	5	3	15	POI Signage - Vehicular
B1.09	Naming Rights branding/identification	Static	yes	Single	Freestanding	Exterior	5	3	15	POI Signage - Vehicular
B1.10	Naming Rights branding/identification	Static	yes	Single	Wall-mounted	Interior	25	10	250	Entrance/Exit Signage Escalator Signage
B1.11	Naming Rights branding/identification	Static	yes	Single	Wall-mounted	Exterior	7	4	28	Entrance/Exit Signage Escalator Signage
B1.12	Naming Rights branding/identification	Static	yes	Single	Wall-mounted	Exterior	5	2.5	13	Elevator Exterior Signage - Bottom
B1.13	Naming Rights branding/identification	Static	yes	Single	Wall-mounted	Interior	2.5	2.5	6	Elevator Interio Signage
B1.14	Naming Rights branding/identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	13	Elevator Exterior Signage - Top
B1.15	Naming Rights branding/identification	Static	yes	Single	Wrap	Exterior	25	7	175	Elevator Exterior Signage - Wrap
B1.16	Naming Rights branding/identification	Static	yes	Single	Wall-mounted	Interior	2.5	2.5	6	Elevator Interio Signage
B1.17	Naming Rights branding/identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	13	Elevator Exterior Signage - Top
B1.18	Naming Rights branding/identification	Static	yes	Single	Wrap	Exterior	25	7	175	Elevator Exterior Signage - Wrap
B1.19	Naming Rights branding/identification	Static	yes	Single	Platform-mounted	Exterior	25	10	250	Upper Platform Branding
B1.20	Naming Rights branding/identification	Static	yes	Single	Wall-mounted	Exterior	5	10	50	Interior Platform Support Branding
B1.21	Naming Rights branding/identification	Static	yes	Single	Wall-mounted	Exterior	25	10	250	Side of Glass Escalator Signage
B1.22	Naming Rights branding/identification	Static	yes	Single	Wall-mounted	Exterior	25	10	250	Side of Glass Escalator Signage
B1.23	Naming Rights branding/identification	Digital	self-illuminating	Single	Ceiling-mounted	Interior	20	20	400	LED Canopy

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
D1.00	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Pedestrian
D1.02	Wayfinding	Static	yes	Double	Wall-mounted	Exterior	7	3	42	Wayfinding Signage - Escalator Base
D1.03	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Pedestrian
D1.04	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Escalator Base
D1.05	Wayfinding	Static	yes	Double	Wall-mounted	Exterior	3	7	42	Wayfinding Signage - Elevator Base
D1.06	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Elevator Base
D1.07	Wayfinding	Static	yes	Double	Hanging	Exterior	15	3	90	Wayfinding Signage - Escalator Overhead Top
D1.08	Wayfinding	Static	yes	Double	Hanging	Exterior	15	3	90	Wayfinding Signage - Escalator Overhead Mid
D1.09	Wayfinding	Static	yes	Double	Hanging	Exterior	15	3	90	Wayfinding Signage - Escalator Overhead Top
D1.10	Wayfinding	Static	yes	Double	Hanging	Exterior	15	3	90	Wayfinding Signage - Escalator Overhead Mid
G1.00	Marketing and Activation	Digital	self-illuminating	Single	Freestanding	Exterior	10	10	100	10x10 Activation Area for Brand

Total Station Digital Signage Area	800
Total Station Static Signage Area	3,505
Total Station Signage Area	4,305

Sign Legend

	static	digital
Naming Rights Branding/Identification	BX.XX	AX.XX
Directional/Wayfinding	DX.XX	
Marketing and Activation	GX.XX	GX.XX

EAST ELEVATION 2

SOUTH ELEVATION 1

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SG9.0

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NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

Sign Number	Sign Type	Digital / Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior Sign	Width (ft)	Height (ft)	Area (SF)	Description
B2.00	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	5	20	100	Pillar Branding
B2.01	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	5	20	100	Pillar Branding
B2.02	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	20	5	100	Pillar Identification
B2.03	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Tco Scupe t Branding
B2.04	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Tco Scupe t Branding
D2.00	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Alameda Triangle Park
D2.01	Wayfinding	Static	yes	Double	Freestanding		3	7	42	Wayfinding Signage - Alameda Triangle Park
								Total Tower Digital Signage Area	0	
								Total Tower Static Signage Area	514	
								Total Tower Signage Area	514	

Sign Legend

	digital	
Naming Rights Branding/Identification	BX.XX	AX.XX
Directional/Wayfinding	DX.XX	
Marketing and Activation	GX.XX	GX.XX

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Project ID
19204

Drawing Title
Alameda Tower

Drawing Number
SG10.0

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NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/Double-Sided	Type	Interior or Exterior Casing	Width (ft)	Height (ft)	Area (SF)	Description
B2.00	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	5	20	100	Pillar branding
B2.01	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	5	20	100	Pillar branding
B2.02	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	20	5	100	Pillar identification
B2.03	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Tag Support Branding
B2.04	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Tag Support Branding
D2.00	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Alameda Triangle Park
D2.01	Wayfinding	Static	yes	Double	Freestanding		3	7	42	Wayfinding Signage - Alameda Triangle Park

Total Tower Digital Signage Area	0
Total Tower Static Signage Area	534
Total Tower Signage Area	534

Sign Legend

	digital
Naming Rights Branding/Identification	BX.XX / AX.XX
Directional/Wayfinding	DX.XX
Marketing and Activation	GX.XX / GX.XX

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Drawing Title
Alameda Tower

Drawing Number
SG11.0

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NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
B3.00	Naming Rights/Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	6	20	120	Pillar Branding
B3.01	Naming Rights/Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	6	20	120	Pillar Branding
B3.02	Naming Rights/Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	10	10	100	High Pillar Branding
B3.03	Naming Rights/Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	20	6	120	Pillar Identification
B3.04	Naming Rights/Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Too Support Branding
B3.05	Naming Rights/Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Too Support Branding
D3.00	Wayfinding	Static	yes	Double	Freestanding	Exterior	3	7	42	Wayfinding - Pedestrian

Total Tower Digital Signage Area	0
Total Tower Static Signage Area	102
Total Tower Signage Area	102

ROOF PLAN (2)

Sign Legend

	digital	
Naming Rights Branding/Identification	BX.XX	AX.XX
Directional/Wayfinding	DX.XX	
Marketing and Activation	GX.XX	digital GX.XX

GROUND LEVEL PLAN (1)

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Drawing Title
Alpine Tower

Drawing Number
SG12.0

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NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

Sign Number	Sign Type	Digital / Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior facing	Width (ft)	Height (ft)	Area (SF)	Description
B3.00	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	6	20	120	Pillar Branding
B3.01	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	6	20	120	Pillar Branding
B3.02	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	10	10	100	High Pillar Branding
B3.03	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	20	6	120	Pillar Identification
B3.04	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Support Branding
B3.05	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Support Branding
D3.00	Wayfinding	Static	yes	Double	Freestanding	Exterior	3	7	42	Wayfinding - Pedestrian
										Total Tower Digital Signage Area: 0
										Total Tower Static Signage Area: 592
										Total Tower Signage Area: 592

Sign Legend

	digital	
Naming Rights Branding/Identification	BX.XX	AX.XX
Directional/Wayfinding	DX.XX	
Marketing and Activation	GX.XX	GX.XX

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Drawing Title

Alpine Tower

Drawing Number

SG13.0

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NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

Sign Number	Sign Type	Digital / Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
B4.00	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	30	10	300	North Upper Platform Support Branding
B4.01	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	50	9	460	South Platform Identification
B4.02	Naming Rights Branding/Identification	Static	yes	Single	Freestanding	Exterior	5	3	15	PDI Signage - Sidewalk
B4.03	Naming Rights Branding/Identification	Static	yes	Single	Freestanding	Exterior	5	3	15	PDI Signage - Sidewalk
B4.04	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Interior	7	4	55	Enhanced Exit Signage
B4.05	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	25	Elevator Exterior Signage - Bottom
B4.06	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	2.5	2.5	13	Elevator Interior Signage
B4.07	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	25	Elevator Exterior Signage - Top
B4.08	Naming Rights Branding/Identification	Static	yes	Single	Wrap	Exterior	23	7	310	Elevator Exterior Signage - Wrap
B4.09	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	20	5	100	Wall Identification
B4.10	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	5	10	32	Pillar Identification
B4.11	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	60	5	269	Exterior Platform Identification
B4.12	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	60	5	269	Exterior Platform Identification
B4.13	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Scope II Branding
B4.14	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Scope II Branding
B4.15	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	10	10	100	Inwall Platform Support Branding
B4.16	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	10	10	100	Inwall Platform Support Branding

Sign Number	Sign Type	Digital / Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
D4.00	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	7	3	21	Wayfinding Signage - Escalator Base
D4.01	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	7	3	21	Wayfinding Signage - Escalator Base
D4.02	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	45	10	450	Wayfinding Signage - Artistic Wall Graphic
D4.03	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	7	3	21	Wayfinding Signage - Wall
D4.04	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Mid
D4.05	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Top
D4.06	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Mid
D4.07	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Top

Total Station Digital Signage Area	0
Total Station Static Signage Area	2,912
Total Station Signage Area	2,912

GROUND LEVEL PLAN (1)

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SG14.0

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NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

Sign Number	Sign Type	Digital / Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior Facing	Width (ft)	Height (ft)	Area (SF)	Description
B4.00	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	30	10	300	North Mezzanine Platform Support Branding
B4.01	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	50	9	460	South Mezzanine Identification
B4.02	Naming Rights Branding/Identification	Static	yes	Single	Freestanding	Exterior	5	3	15	POI Signage - Sidewalk
B4.03	Naming Rights Branding/Identification	Static	yes	Single	Freestanding	Exterior	5	3	15	POI Signage - Sidewalk
B4.04	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Interior	7	4	55	Entrance/Exit Signage
B4.05	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	25	Elevator Exterior Signage - Bottom
B4.06	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	2.5	2.5	13	Elevator Interior Signage
B4.07	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	25	Elevator Exterior Signage - Top
B4.08	Naming Rights Branding/Identification	Static	yes	Single	Wrap	Exterior	23	7	310	Elevator Exterior Signage - Wrap
B4.09	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	20	5	100	Wall Identification
B4.10	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	5	10	50	Pillar Identification
B4.11	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	60	5	269	Exterior Platform Identification
B4.12	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	60	5	269	Exterior Platform Identification
B4.13	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Scope Branding
B4.14	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Scope Branding
B4.15	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	10	10	100	Internal Platform Support Branding
B4.16	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	10	10	100	Internal Platform Support Branding

Sign Number	Sign Type	Digital / Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-Facing	Width (ft)	Height (ft)	Area (SF)	Description
D4.00	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	7	3	21	Wayfinding Signage - Escalator Base
D4.01	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	7	3	21	Wayfinding Signage - Escalator Base
D4.02	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	85	10	850	Wayfinding Signage - Artistic Wall Graphic
D4.03	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	7	3	21	Wayfinding Signage - Wall
D4.04	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Mid
D4.05	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Top
D4.06	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Mid
D4.07	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Top

Total Station Digital Signage Area	0
Total Station Static Signage Area	2,912
Total Station Signage Area	2,912

MEZZANINE LEVEL PLAN (1)

Sign Legend

		digital
Naming Rights Branding/Identification	BX.XX	AX.XX
Directional/Wayfinding	DX.XX	
Marketing and Activation	GX.XX	GX.XX

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Drawing Title
Chinatown / State Park Station

Drawing Number
SG15.0

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NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior Facing	Width (ft)	Height (ft)	Area (SF)	Description
B4.00	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	20	10	200	North Upper Platform Support Branding
B4.01	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	50	8	400	South Platform Branding
B4.02	Naming Rights Branding/Identification	Static	yes	Single	Freestanding	Exterior	5	3	15	POI Signage - Vehicular
B4.03	Naming Rights Branding/Identification	Static	yes	Single	Freestanding	Exterior	5	3	15	POI Signage - Vehicular
B4.04	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Interior	7	4	56	Entrance/Exit Signage
B4.05	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	25	Elevator Exterior Signage - Bottom
B4.06	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	2.5	2.5	13	Elevator Interior Signage
B4.07	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	25	Elevator Exterior Signage - Top
B4.08	Naming Rights Branding/Identification	Static	yes	Single	Wrap	Exterior	25	7	359	Elevator Exterior Signage - Wrap
B4.09	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	20	5	100	Wall Identification
B4.10	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	5	10	50	Pillar Identification
B4.11	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	40	5	200	Exterior Platform Identification
B4.12	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	40	5	200	Exterior Platform Identification
B4.13	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Support Branding
B4.14	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Support Branding
B4.15	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	10	10	100	Internal Platform Support Branding
B4.16	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	10	10	100	Internal Platform Support Branding

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior Facing	Width (ft)	Height (ft)	Area (SF)	Description
D4.00	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	7	3	21	Wayfinding Signage - Escalator Base
D4.01	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	7	3	21	Wayfinding Signage - Escalator Base
D4.02	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	48	10	480	Wayfinding Signage - Artistic Wall Graphic
D4.03	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	7	3	21	Wayfinding Signage - Wall
D4.04	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Mid
D4.05	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Top
D4.06	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Mid
D4.07	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Top

Total Station Digital Signage Area	0
Total Station Static Signage Area	2,972
Total Station Signage Area	2,972

BOARDING LEVEL PLAN 1

Sign Legend

	digital	
Naming Rights Branding/Identification	BX.XX	AX.XX
Directional/Wayfinding	DX.XX	
Marketing and Activation	GX.XX	GX.XX

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Drawing Title

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Drawing Number

SG16.0

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NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

Sign Number	Sign Type	Digital / Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior Facing	Width (ft)	Height (ft)	Area (SF)	Description
B4.00	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	30	10	300	North Upper Platform Support Branding
B4.01	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	50	9	460	South Platform Identifier
B4.02	Naming Rights Branding/Identification	Static	yes	Single	Freestanding	Exterior	5	3	15	PDI Signage - Yintesette
B4.03	Naming Rights Branding/Identification	Static	yes	Single	Freestanding	Exterior	5	3	15	PDI Signage - Yintesette
B4.04	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Interior	7	4	55	Entrance Exit Signage
B4.05	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	25	Elevator Exterior Signage - Bottom
B4.06	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	2.5	2.5	13	Elevator Interior Signage
B4.07	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	25	Elevator Exterior Signage - Top
B4.08	Naming Rights Branding/Identification	Static	yes	Single	Wrap	Exterior	23	7	310	Elevator Exterior Signage - Wrap
B4.09	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	20	5	100	Wall Identification
B4.10	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	5	10	10	Pillar Identification
B4.11	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	60	5	269	Exterior Platform Identification
B4.12	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	60	5	269	Exterior Platform Identification
B4.13	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Scupe Branding
B4.14	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Scupe Branding
B4.15	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	10	10	100	Internal Platform Support Branding
B4.16	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	10	10	100	Internal Platform Support Branding

Sign Number	Sign Type	Digital / Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior Facing	Width (ft)	Height (ft)	Area (SF)	Description
D4.00	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	7	3	21	Wayfinding Signage - Escalator Base
D4.01	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	7	3	21	Wayfinding Signage - Escalator Base
D4.02	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	45	10	450	Wayfinding Signage - Artistic Wall Graphic
D4.03	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	7	3	21	Wayfinding Signage - Wall
D4.04	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Mid
D4.05	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Top
D4.06	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Mid
D4.07	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Top
										Total Station Digital Signage Area: 0
										Total Station Static Signage Area: 2,912
										Total Station Signage Area: 2,912

ROOF PLAN 1

Sign Legend

	digital		digital
Naming Rights Branding/Identification	BX.XX	AX.XX	
Directional/Wayfinding	DX.XX		
Marketing and Activation	GX.XX	GX.XX	

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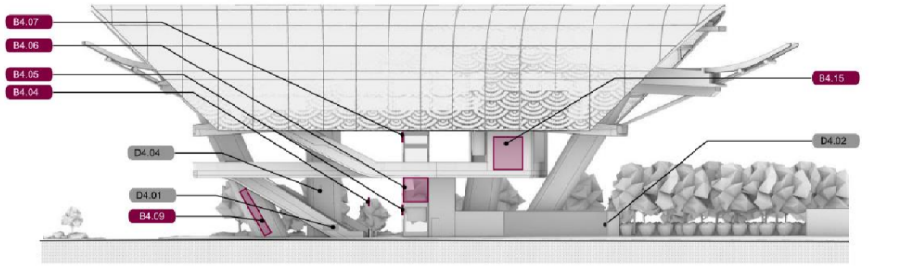
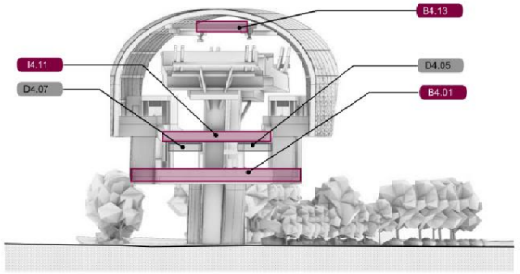
Sign Number	Sign Type	Digital / Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior Facing	Width (ft)	Height (ft)	Area (SF)	Description
B4.00	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	20	10	380	North Upper Platform Support Branding
B4.01	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	50	8	400	South Platform Branding
B4.02	Naming Rights Branding/Identification	Static	yes	Single	Freestanding	Exterior	5	3	15	PIR Signage - Vehicular
B4.03	Naming Rights Branding/Identification	Static	yes	Single	Freestanding	Exterior	5	3	15	PIR Signage - Vehicular
B4.04	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Interior	7	4	56	Entrance/Exit Signage
B4.05	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	25	Elevator Exterior Signage - Bottom
B4.06	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	2.5	2.5	13	Elevator Interior Signage
B4.07	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	25	Elevator Exterior Signage - Top
B4.08	Naming Rights Branding/Identification	Static	yes	Single	Wrap	Exterior	25	7	330	Elevator Exterior Signage - Wrap
B4.09	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	20	5	160	Wall Identification
B4.10	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	5	10	50	Pillar Identification
B4.11	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	48	5	240	Exterior Platform Identification
B4.12	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	48	5	240	Exterior Platform Identification
B4.13	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Support Branding
B4.14	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Support Branding
B4.15	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	10	10	100	Inwall Platform Support Branding
B4.16	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	10	10	100	Inwall Platform Support Branding

Sign Number	Sign Type	Digital / Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior Facing	Width (ft)	Height (ft)	Area (SF)	Description
B4001	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	7	3	21	Wayfinding Signage - Escalator Base
B4001	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	7	3	21	Wayfinding Signage - Escalator Base
B4002	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	40	10	400	Wayfinding Signage - Artistic Wall Graphic
B4003	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	7	3	21	Wayfinding Signage - Wall
B4004	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Mid
B4005	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Top
B4006	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Mid
B4007	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Top
									0	Total Station Digital Signage Area
									2,912	Total Station Static Signage Area
									2,912	Total Station Signage Area



EAST ELEVATION (2)



SOUTH ELEVATION (1)

Sign Legend

	digital		digital
Naming Rights Branding/Identification	BX.XX	AX.XX	
Directional/Wayfinding	DX.XX		
Marketing and Activation	GX.XX	GX.XX	

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19204

Drawing Title
Chinatown / State Park Station

Drawing Number
SG18.0

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NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
B4.00	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	30	10	300	North Upper Platform Support Branding
B4.01	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	50	8	400	South Platform Branding
B4.02	Naming Rights Branding/Identification	Static	yes	Single	Freestanding	Exterior	5	3	15	POI Signage - Vehicular
B4.03	Naming Rights Branding/Identification	Static	yes	Single	Freestanding	Exterior	5	3	15	POI Signage - Vehicular
B4.04	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Interior	7	4	56	Entrance/Exit Signage
B4.05	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	25	Elevator Exterior Signage - Bottom
B4.06	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	2.5	2.5	13	Elevator Interior Signage
B4.07	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	25	Elevator Exterior Signage - Top
B4.08	Naming Rights Branding/Identification	Static	yes	Single	Wrap	Exterior	25	7	350	Elevator Exterior Signage - Wrap
B4.09	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	20	5	100	Wall Identification
B4.10	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	5	10	50	Pillar Identification
B4.11	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	40	5	200	Exterior Platform Identification
B4.12	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	40	5	200	Exterior Platform Identification
B4.13	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Support Branding
B4.14	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Support Branding
B4.15	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	10	10	100	Internal Platform Support Branding
B4.16	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	10	10	100	Internal Platform Support Branding

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
D4.00	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	7	3	21	Wayfinding Signage - Escalator Base
D4.01	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	7	3	21	Wayfinding Signage - Escalator Base
D4.02	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	40	10	400	Wayfinding Signage - Artistic Wall Graphic
D4.03	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	7	3	21	Wayfinding Signage - Wall
D4.04	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Mid
D4.05	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Top
D4.06	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Mid
D4.07	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Top
						Total Station Digital Signage Area			0	
						Total Station Static Signage Area			2,912	
						Total Station Signage Area			2,912	

WEST ELEVATION 2

NORTH ELEVATION 1

Sign Legend

		digital
Naming Rights Branding/Identification	BX.XX	AX.XX
Directional/Wayfinding	DX.XX	
Marketing and Activation	QX.XX	digital QX.XX

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19204

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Chinatown / State Park Station

Drawing Number
SG19.0

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NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

Sign Number	Sign Type	Digital / Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
B6D0	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	25	25	615	West Canopy Branding
B6D1	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	3	10	30	Pillar Branding
B6D2	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	25	25	615	East Canopy Branding
B6D3	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	10	3	30	Pillar Identification
B6D4	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Tco Scope Il Branding
B6D5	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Tco Scope Il Branding
D9D2	Wayfinding	Static	yes	Double	Wall-mounted	Exterior	3	7	42	Wayfinding - Pedestrian
								Total Junction Digital Signage Area		0
								Total Junction Static Signage Area		1,442
								Total Junction Signage Area		1,442

Sign Legend

	digital	
Naming Rights Branding/Identification	BX.XX	AX.XX
Directional/Wayfinding	DX.XX	
Marketing and Activation	GX.XX	GX.XX

GROUND LEVEL PLAN (1)

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Drawing Title

Broadway Junction

Drawing Number

SG20.0

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NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

Sign Number	Sign Type	Digital / Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
B6.00	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	25	25	615	West Canopy Branding
B6.01	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	3	10	30	Pillar Branding
B6.02	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	25	25	615	East Canopy Branding
B6.03	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	10	3	30	Pillar Identification
B6.04	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Tco Scope I Branding
B6.05	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Tco Scope I Branding
D902	Wayfinding	Static	yes	Double	Wall-mounted	Exterior	3	7	42	Wayfinding - Pedestrian
								Total Junction Digital Signage Area		0
								Total Junction Static Signage Area		1,442
								Total Junction Signage Area		1,442

Sign Legend

	digital	
Naming Rights Branding/Identification	BX.XX	AX.XX
Directional/Wayfinding	DX.XX	
Marketing and Activation	GX.XX	GX.XX

ROOF PLAN 2

PLATFORM LEVEL PLAN 1

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Drawing Title

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NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

Sign Number	Sign Type	Display / Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
B6.00	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	25	25	625	West Canopy Branding
B6.01	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	3	10	30	Pillar Branding
B6.02	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	25	25	625	East Canopy Branding
B6.03	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	10	3	30	Pillar Identification
B6.04	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Tee Scape Branding
B6.05	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Tee Scape Branding
D6.00	Wayfinding	Static	yes	Double	Wall-mounted	Exterior	3	7	42	Wayfinding - Pedestrian
								Total Junction Digital Signage Area		0
								Total Junction Static Signage Area		1,442
								Total Junction Signage Area		1,442

Sign Legend

	digital	
Naming Rights Branding/Identification	BX.XX	AX.XX
Directional/Wayfinding	DX.XX	
Marketing and Activation	GX.XX	GX.XX

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NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

Sign Number	Sign Type	Digital / Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
B6.00	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	25	25	625	West Canopy Branding
B6.01	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	3	10	30	Pillar Branding
B6.02	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	25	25	625	East Canopy Branding
B6.03	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	10	3	30	Pillar Identification
B6.04	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Tee Scape Branding
B6.05	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Tee Scape Branding
D902	Wayfinding	Static	yes	Double	Wall-mounted	Exterior	3	7	42	Wayfinding - Pedestrian
								Total Junction Digital Signage Area		0
								Total Junction Static Signage Area		1,442
								Total Junction Signage Area		1,442

Sign Legend

	digital	
Naming Rights Branding/Identification	BX.XX	AX.XX
Directional/Wayfinding	DX.XX	
Marketing and Activation	GX.XX	GX.XX

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NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

Sign Number	Sign Type	Display/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
B7.00	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	3	11	33	Pillar Branding
B7.01	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Support Branding
B7.02	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Support Branding

Total Tower Digital Signage Area	0
Total Tower Static Signage Area	120
Total Tower Signage Area	120

Sign Legend

	digital	
Naming Rights Branding/Identification	BX.XX	AX.XX
Directional/Wayfinding	DX.XX	
Marketing and Activation	GX.XX	digital GX.XX

ROOF PLAN 1

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Drawing Title
Stadium Tower

Drawing Number
SG24.0

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NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

Sign Number	Sign Type	Display Static	Illuminated	Single/Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
B7.00	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	3	10	30	Pillar Branding
B7.01	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Support Branding
B7.02	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Support Branding

Total Tower Digital Signage Area	0
Total Tower Static Signage Area	120
Total Tower Signage Area	120

Sign Legend

	digital
Naming Rights Branding/Identification	BX.XX / AX.XX
Directional/Wayfinding	DX.XX
Marketing and Activation	GX.XX / GX.XX

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Drawing Title
Stadium Tower

Drawing Number
SG25.0

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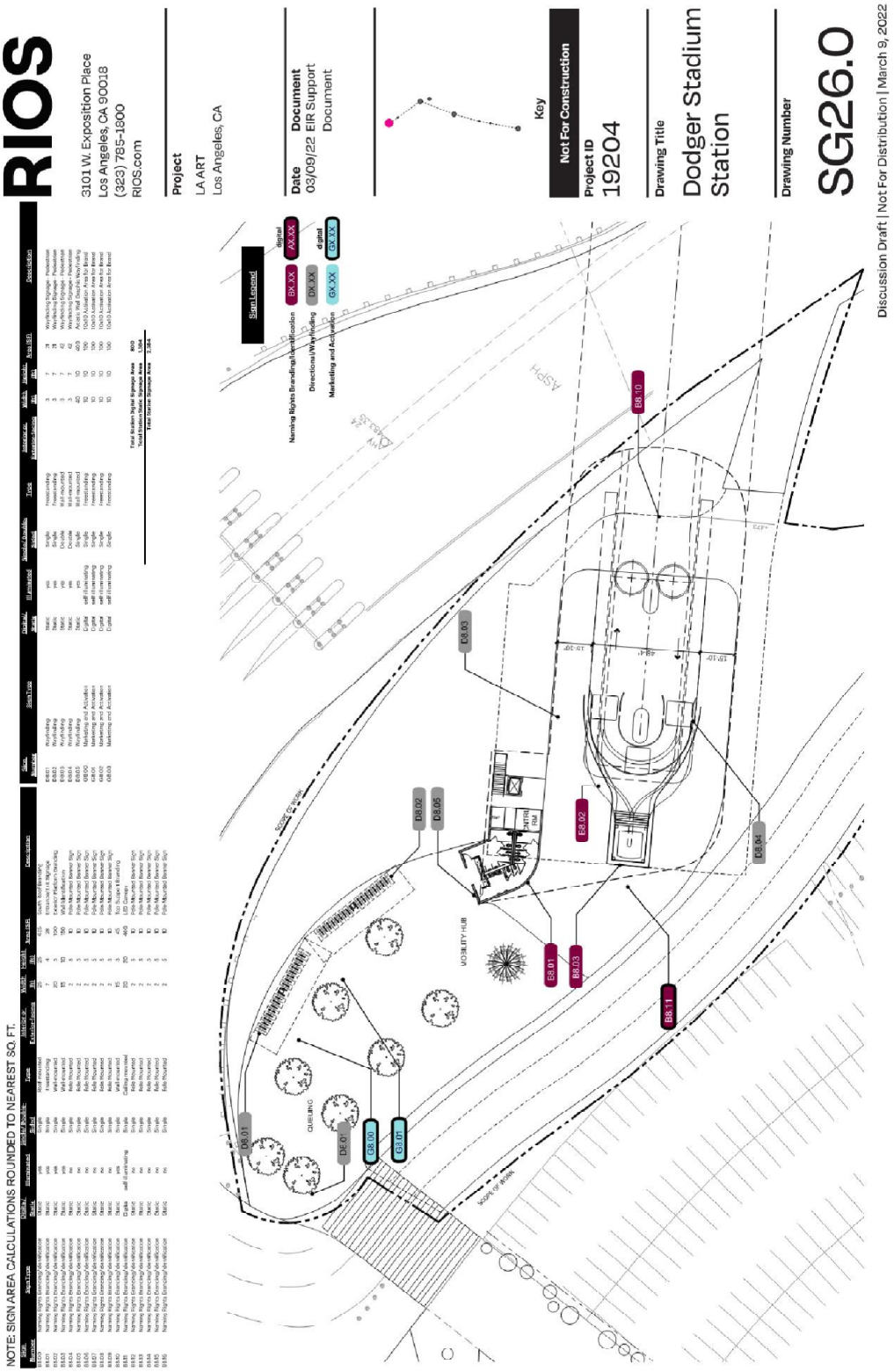
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Drawing Title
Dodger Stadium Station
Drawing Number
SG26.0
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NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.
Sign Legend
Signal
Naming Rights Brand/Identification
Directional/Wayfinding
Marketing and Activation
static
digital
D8.01
D8.02
D8.03
D8.04
D8.05
E8.01
E8.02
E8.03
E8.10
E8.11
G8.00
G8.01
QUEUING
MOBILITY HUB
SCOPE OF WORK

NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
BB00	Naming Rights Branding/Identification	Static	yes	Single	Roof-mounted		23	23	615	South Roof Branding
BB01	Naming Rights Branding/Identification	Static	yes	Single	Freestanding		7	4	28	Entrance Kiosk Signage
BB02	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted		20	5	100	Exterior Platform Branding
BB03	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted		15	10	150	Wall Identification
BB04	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
BB05	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
BB06	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
BB07	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
BB08	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
BB09	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
BB10	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted		15	3	45	Bus Supper Branding
BB11	Naming Rights Branding/Identification	Digital	self-illuminating	Single	Ceiling-mounted		20	20	400	LED Canopy
BB12	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
BB13	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
BB14	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
BB15	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
BB16	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
DB01	Wayfinding	Static	yes	Single	Freestanding		3	7	21	Wayfinding Signage - Pedestrian
DB02	Wayfinding	Static	yes	Single	Freestanding		3	7	21	Wayfinding Signage - Pedestrian
DB03	Wayfinding	Static	yes	Double	Wall-mounted		3	7	42	Wayfinding Signage - Pedestrian
DB04	Wayfinding	Static	yes	Double	Wall-mounted		3	7	42	Wayfinding Signage - Pedestrian
DB05	Wayfinding	Static	yes	Single	Wall-mounted		40	10	400	Artistic Wall Graphic Wayfinding
GB00	Marketing and Activation	Digital	self-illuminating	Single	Freestanding		10	10	100	10x10 Activation Area for Brand
GB01	Marketing and Activation	Digital	self-illuminating	Single	Freestanding		10	10	100	10x10 Activation Area for Brand
GB02	Marketing and Activation	Digital	self-illuminating	Single	Freestanding		10	10	100	10x10 Activation Area for Brand
GB03	Marketing and Activation	Digital	self-illuminating	Single	Freestanding		10	10	100	10x10 Activation Area for Brand

Total Station Digital Signage Area	800
Total Station Static Signage Area	1,584
Total Station Signage Area	2,384

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Dodger Stadium Station

Drawing Number
SG27.0

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NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

Sign Number	Sign Type	Display Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
B8.00	Naming Rights Branding/Identification	Static	yes	Single	Roof-mounted		25	25	625	South Roof Branding
B8.01	Naming Rights Branding/Identification	Static	yes	Single	Freestanding		7	4	28	Entrance Exit Signage
B8.02	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted		20	5	100	Exterior Platform Branding
B8.03	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted		15	10	150	Wall Identification
B8.04	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.05	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.06	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.07	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.08	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.09	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.10	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted		15	3	45	Eco Super Branding
B8.11	Naming Rights Branding/Identification	Digital	self-illuminating	Single	Ceiling-mounted		20	20	400	LED Canopy
B8.12	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.13	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.14	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.15	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.16	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
D8.01	Wayfinding	Static	yes	Single	Freestanding		3	7	21	Wayfinding Signage - Pedestrian
D8.02	Wayfinding	Static	yes	Single	Freestanding		3	7	21	Wayfinding Signage - Pedestrian
D8.03	Wayfinding	Static	yes	Double	Wall-mounted		3	7	42	Wayfinding Signage - Pedestrian
D8.04	Wayfinding	Static	yes	Double	Wall-mounted		3	7	42	Wayfinding Signage - Pedestrian
D8.05	Wayfinding	Static	yes	Single	Wall-mounted		40	10	400	Artistic Wall Graphic Wayfinding
G8.00	Marketing and Activation	Digital	self-illuminating	Single	Freestanding		10	10	100	10x10 Activation Area for Brand
G8.01	Marketing and Activation	Digital	self-illuminating	Single	Freestanding		10	10	100	10x10 Activation Area for Brand
G8.02	Marketing and Activation	Digital	self-illuminating	Single	Freestanding		10	10	100	10x10 Activation Area for Brand
G8.03	Marketing and Activation	Digital	self-illuminating	Single	Freestanding		10	10	100	10x10 Activation Area for Brand

Total Station Digital Signage Area	800
Total Station Static Signage Area	1,584
Total Station Signage Area	2,384

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LA ART
Los Angeles, CA

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Project ID

19204

Drawing Title

Dodger Stadium Station

Drawing Number

SG28.0

Discussion Draft | Not For Distribution | March 9, 2022

NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
B8.00	Naming Rights Branding/Identification	Static	yes	Single	Roof-mounted		25	25	625	South Roof Branding
B8.01	Naming Rights Branding/Identification	Static	yes	Single	Freestanding		7	4	28	Entrance Exit Signage
B8.02	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted		20	5	100	Exterior Platform branding
B8.03	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted		15	10	150	Wall Identification
B8.04	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.05	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.06	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.07	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.08	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.09	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.10	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted		15	3	45	Eco Support Branding
B8.11	Naming Rights Branding/Identification	Digital	self-illuminating	Single	Ceiling-mounted		20	20	400	LED Canopy
B8.12	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.13	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.14	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.15	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.16	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
D8.01	Wayfinding	Static	yes	Single	Freestanding		3	7	21	Wayfinding Signage - Pedestrian
D8.02	Wayfinding	Static	yes	Single	Freestanding		3	7	21	Wayfinding Signage - Pedestrian
D8.03	Wayfinding	Static	yes	Double	Wall-mounted		3	7	42	Wayfinding Signage - Pedestrian
D8.04	Wayfinding	Static	yes	Double	Wall-mounted		3	7	42	Wayfinding Signage - Pedestrian
D8.05	Wayfinding	Static	yes	Single	Wall-mounted		40	10	400	Artistic Wall Graphic Wayfinding
GB.00	Marketing and Activation	Digital	self-illuminating	Single	Freestanding		10	10	100	10x10 Activation Area for Brand
GB.01	Marketing and Activation	Digital	self-illuminating	Single	Freestanding		10	10	100	10x10 Activation Area for Brand
GB.02	Marketing and Activation	Digital	self-illuminating	Single	Freestanding		10	10	100	10x10 Activation Area for Brand
GB.03	Marketing and Activation	Digital	self-illuminating	Single	Freestanding		10	10	100	10x10 Activation Area for Brand

Total Station Digital Signage Area	800
Total Station Static Signage Area	1,584
Total Station Signage Area	2,384

WEST ELEVATION 2

NORTH ELEVATION 1

Sign Legend

	digital	
Naming Rights Branding/Identification	BX.XX	AX.XX
Directional/Wayfinding	DX.XX	
Marketing and Activation	GX.XX	GX.XX

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NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
B8.00	Naming Rights Branding/Identification	Static	yes	Single	Roof-mounted		25	25	625	South Roof Branding
B8.01	Naming Rights Branding/Identification	Static	yes	Single	Freestanding		7	4	28	Entrance Kit Signage
B8.02	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted		20	5	100	Exterior Platform branding
B8.03	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted		15	10	150	Wall Identification
B8.04	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.05	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.06	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.07	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.08	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.09	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.10	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted		15	3	45	Eco Super Branding
B8.11	Naming Rights Branding/Identification	Digital	self-illuminating	Single	Ceiling-mounted		20	20	400	LED Canopy
B8.12	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.13	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.14	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.15	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign
B8.16	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole-Mounted Banner Sign

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
DB01	Wayfinding	Static	yes	Single	Freestanding		3	7	21	Wayfinding Signage - Pedestrian
DB02	Wayfinding	Static	yes	Single	Freestanding		3	7	21	Wayfinding Signage - Pedestrian
DB03	Wayfinding	Static	yes	Double	Wall-mounted		3	7	42	Wayfinding Signage - Pedestrian
DB04	Wayfinding	Static	yes	Double	Wall-mounted		3	7	42	Wayfinding Signage - Pedestrian
DB05	Wayfinding	Static	yes	Single	Wall-mounted		40	10	400	Acrylic Wall Graphic Wayfinding
GB00	Marketing and Activation	Digital	self-illuminating	Single	Freestanding		10	10	100	10x10 Activation Area for Brand
GB01	Marketing and Activation	Digital	self-illuminating	Single	Freestanding		10	10	100	10x10 Activation Area for Brand
GB02	Marketing and Activation	Digital	self-illuminating	Single	Freestanding		10	10	100	10x10 Activation Area for Brand
GB03	Marketing and Activation	Digital	self-illuminating	Single	Freestanding		10	10	100	10x10 Activation Area for Brand

Total Station Digital Signage Area	800
Total Station Static Signage Area	1,584
Total Station Signage Area	2,384

EAST ELEVATION (2)

SOUTH ELEVATION (1)

Sign Legend

	digital	
Naming Rights Branding/Identification	BX.XX	AX.XX
Directional/Wayfinding	DX.XX	
Marketing and Activation	GX.XX	GX.XX

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Drawing Title

Dodger Stadium Station

Drawing Number

SG30.0

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NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior/Facing	Width (ft)	Height (ft)	Area (SF)	Description
BR00	Naming Rights Branding/Identification	Static	no	Single			16	16	192	Bottom Branding
BR01	Naming Rights Branding/Identification	Static	no	Single (x1 sides)			2.5	12.5	625	Exterior Cabin Wrap Branding - 4 sides
BR02	Naming Rights Branding/Identification	Static	no	Double			15	3	90	Attach Arm Bracing - 2 sides

Total Cabin Digital Signage Area (per Cabin)	0
x 60 Cabins	0
Total Cabin Static Signage Area (per Cabin)	885
x 60 Cabins	48,900
Total Cabin Signage Area (per Cabin)	885
x 60 Cabins	48,900
Signage Area Summary (SF)	
Total Project Digital Signage Area (excluding cabins)	1,300
Total Project Static Signage Area (excluding cabins)	10,989
Total Project Signage Area (excluding cabins)	12,289

Sign Legend

	digital	
Naming Rights Branding/Identification	BX.XX	AX.XX
Directional/Wayfinding	DX.XX	
Marketing and Activation	GX.XX	GX.XX

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Drawing Title

ART Cabin/ System - Exterior

Drawing Number

SG31.0

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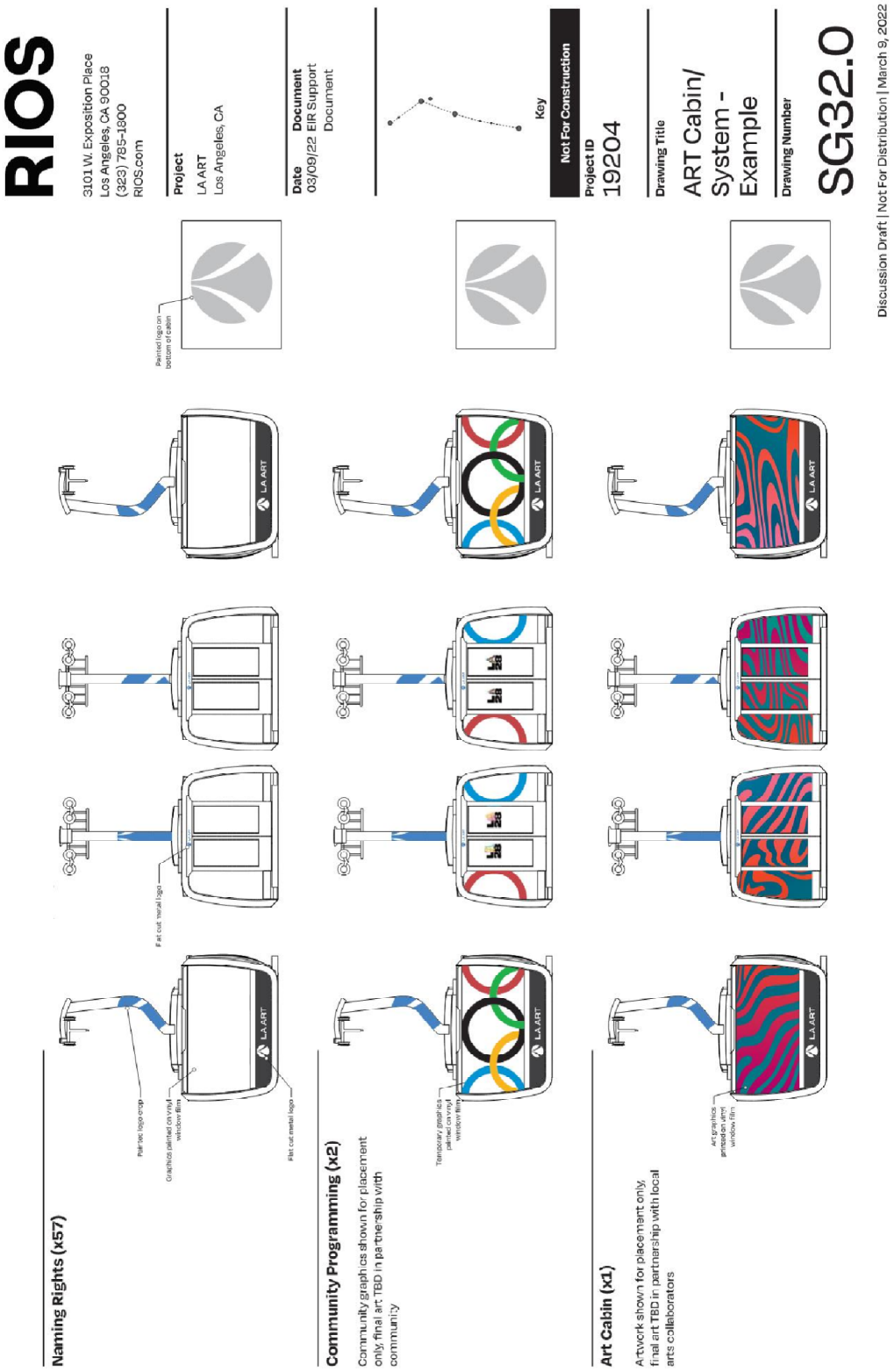
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ART Cabin/ System - Example
Drawing Number
SG32.0
Discussion Draft | Not For Distribution | March 9, 2022
Painted logo on bottom of cabin
Naming Rights (x57)
Community Programming (x2)
Community graphics shown for placement only, final art TBD in partnership with community
Art Cabin (x1)
Artwork shown for placement only, final art TBD in partnership with local arts collaborators
LA ART

NOTE: SIGN AREA CALCULATIONS ROUNDED TO NEAREST SQ. FT.

ALAMEDA STATION

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
A1.00	Naming Rights Branding/Identification	Static	yes	Single	Platform-mounted	Exterior	80	30	2400	Exterior Platform Branding
A1.01	Naming Rights Branding/Identification	Static	yes	Single	Platform-mounted	Exterior	60	10	600	Exterior Platform Branding
A1.02	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	5	10	50	Pillar Branding
A1.03	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	5	10	50	Pillar Branding
A1.04	Naming Rights Branding/Identification	Static	yes	Single	Platform-mounted	Exterior	20	5	100	Exterior Platform Branding
A1.05	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	30	5	150	Top Support Branding
A1.06	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	25	7	175	Elevator Exterior Identification + Wrap
A1.07	Naming Rights Branding/Identification	Static	yes	Single	Platform-mounted	Exterior	30	10	300	Upper Platform Branding
A1.08	Naming Rights Branding/Identification	Static	yes	Single	Freestanding	Exterior	5	3	15	POI Signage - Vinicville
A1.09	Naming Rights Branding/Identification	Static	yes	Single	Freestanding	Exterior	5	3	15	POI Signage - Vinicville
A1.10	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	25	10	250	Entrance/Exit Signage Escalator Signage
A1.11	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	7	4	28	Entrance/Exit Signage Escalator Signage
A1.12	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	5	2.5	13	Elevator Exterior Signage - Button
A1.13	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	2.5	2.5	6	Elevator Interior Signage
A1.14	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	13	Elevator Exterior Signage - Top
A1.15	Naming Rights Branding/Identification	Static	yes	Single	Wrap	Exterior	25	7	175	Elevator Exterior Signage - Wrap
A1.16	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	2.5	2.5	6	Elevator Interior Signage
A1.17	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	13	Elevator Exterior Signage - Top
A1.18	Naming Rights Branding/Identification	Static	yes	Single	Wrap	Exterior	25	7	175	Elevator Exterior Signage - Wrap
A1.19	Naming Rights Branding/Identification	Static	yes	Single	Platform-mounted	Exterior	25	10	250	Upper Platform Branding
A1.20	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	5	10	50	Internal Platform Support Branding
A1.21	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	25	10	250	Side of Glass Escalator Signage
A1.22	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	25	10	250	Side of Glass Escalator Signage
A1.23	Naming Rights Branding/Identification	Digital	self-illuminating	Single	Ceiling-mounted	Interior	20	20	400	LED Canopy
D1.00	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Pedestrian
D1.02	Wayfinding	Static	yes	Double	Wall-mounted	Exterior	7	3	42	Wayfinding Signage - Escalator Base
D1.03	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Pedestrian
D1.04	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Elevator Base
D1.05	Wayfinding	Static	yes	Double	Wall-mounted	Exterior	3	7	42	Wayfinding Signage - Elevator Base
D1.06	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Elevator Base
D1.07	Wayfinding	Static	yes	Double	Hanging	Exterior	15	3	60	Wayfinding Signage - Escalator Overhead Top
D1.08	Wayfinding	Static	yes	Double	Hanging	Exterior	15	3	60	Wayfinding Signage - Escalator Overhead Top
D1.09	Wayfinding	Static	yes	Double	Hanging	Exterior	15	3	60	Wayfinding Signage - Escalator Overhead Top
D1.10	Wayfinding	Static	yes	Double	Hanging	Exterior	15	3	60	Wayfinding Signage - Escalator Overhead Mid
G1.00	Marketing and Activation	Digital	self-illuminating	Single	Freestanding	Exterior	10	10	100	10x10 Activation Area for Brand

Total Station Digital Signage Area	940
Total Station Static Signage Area	3,865
Total Station Signage Area	4,805

ALAMEDA TOWER

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
A2.00	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	5	20	100	Pillar Branding
A2.01	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	5	20	100	Pillar Branding
A2.02	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	20	5	100	Pillar Identification
A2.03	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Support Branding
A2.04	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Support Branding
D2.00	Wayfinding	Static	yes	Double	Freestanding	Exterior	7	3	42	Wayfinding Signage - Alameda Triangle Pen
D2.01	Wayfinding	Static	yes	Double	Freestanding		3	7	42	Wayfinding Signage - Alameda Triangle Pen

Total Tower Digital Signage Area	0
Total Tower Static Signage Area	514
Total Tower Signage Area	514

ALPINE TOWER

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
A3.00	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	5	20	100	Pillar Branding
A3.01	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	5	20	100	Pillar Branding
A3.02	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	10	10	100	High Pillar Branding
A3.03	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	20	5	100	Pillar Identification
A3.04	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Support Branding
A3.05	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Support Branding
D3.00	Wayfinding	Static	yes	Double	Freestanding	Exterior	3	7	42	Wayfinding - Pedestrian

Total Tower Digital Signage Area	0
Total Tower Static Signage Area	592
Total Tower Signage Area	592

CHINATOWN / STATE PARK STATION

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
A4.00	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	30	10	300	North Platform Support Branding
A4.01	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	50	8	400	South Platform Branding
A4.02	Naming Rights Branding/Identification	Static	yes	Single	Freestanding	Exterior	5	3	15	POI Signage - Vinicville
A4.03	Naming Rights Branding/Identification	Static	yes	Single	Freestanding	Exterior	5	3	15	POI Signage - Vinicville
A4.04	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Interior	7	4	28	Entrance/Exit Signage
A4.05	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	13	Elevator Exterior Signage - Button
A4.06	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	2.5	2.5	6	Elevator Interior Signage
A4.07	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	5	2.5	13	Elevator Exterior Signage - Top
A4.08	Naming Rights Branding/Identification	Static	yes	Single	Wrap	Exterior	25	7	175	Elevator Exterior Signage - Wrap
A4.09	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	20	5	100	Wall Identification
A4.10	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	5	10	50	Pillar Identification
A4.11	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	40	5	200	Exterior Platform Identification
A4.12	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	40	5	200	Exterior Platform Identification
A4.13	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Support Branding
A4.14	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Support Branding
A4.15	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	10	10	100	Internal Platform Support Branding
A4.16	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Interior	10	10	100	Internal Platform Support Branding
D4.00	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	7	3	21	Wayfinding Signage - Escalator Base
D4.01	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	7	3	21	Wayfinding Signage - Escalator Base
D4.02	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	65	10	650	Wayfinding Signage - Artistic Wall Graphic
D4.03	Wayfinding	Static	yes	Single	Wall-mounted	Exterior	7	3	21	Wayfinding Signage - Wall
D4.04	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Mid
D4.05	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Top
D4.06	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Mid
D4.07	Wayfinding	Static	yes	Double	Hanging	Interior	15	3	90	Wayfinding Signage - Escalator Overhead Top

Total Station Digital Signage Area	0
Total Station Static Signage Area	2,912
Total Station Signage Area	2,912

BROADWAY JUNCTION

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
B4.00	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	25	25	625	West Canopy Branding
B4.01	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	3	10	30	Pillar Branding
B4.02	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted	Exterior	25	25	625	East Canopy Branding
B4.03	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	10	3	30	Pillar Identification
B4.04	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Support Branding
B4.05	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Support Branding
D3.00	Wayfinding	Static	yes	Double	Wall-mounted	Exterior	3	7	42	Wayfinding - Pedestrian

Total Junction Digital Signage Area	0
Total Junction Static Signage Area	1,442
Total Junction Signage Area	1,442

STADIUM TOWER

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
B1.00	Naming Rights Branding/Identification	Static	yes	Single	Pillar-mounted	Exterior	3	10	30	Pillar Branding
B1.01	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Support Branding
B1.02	Naming Rights Branding/Identification	Static	yes	Single	Hanging	Exterior	15	3	45	Top Support Branding

Total Tower Digital Signage Area	0
Total Tower Static Signage Area	120
Total Tower Signage Area	120

DODGER STADIUM STATION

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
B1.00	Naming Rights Branding/Identification	Static	yes	Single	Roof-mounted		25	25	625	South Roof Branding
B1.01	Naming Rights Branding/Identification	Static	yes	Single	Freestanding		7	4	28	Entrance/Exit Signage
B1.02	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted		20	5	100	Exterior Platform Branding
B1.03	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted		15	10	150	Wall Identification
B1.04	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole Mounted Banner Sign
B1.05	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole Mounted Banner Sign
B1.06	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole Mounted Banner Sign
B1.07	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole Mounted Banner Sign
B1.08	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole Mounted Banner Sign
B1.09	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole Mounted Banner Sign
B1.10	Naming Rights Branding/Identification	Static	yes	Single	Wall-mounted		15	3	45	Top Support Branding
B1.11	Naming Rights Branding/Identification	Digital	self-illuminating	Single	Ceiling-mounted		20	20	400	LED Canopy
B1.12	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole Mounted Banner Sign
B1.13	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole Mounted Banner Sign
B1.14	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole Mounted Banner Sign
B1.15	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole Mounted Banner Sign
B1.16	Naming Rights Branding/Identification	Static	no	Single	Pole Mounted		2	5	10	Pole Mounted Banner Sign
D1.01	Wayfinding	Static	yes	Single	Freestanding		3	7	21	Wayfinding Signage - Pedestrian
D1.02	Wayfinding	Static	yes	Single	Freestanding		3	7	21	Wayfinding Signage - Pedestrian
D1.03	Wayfinding	Static	yes	Double	Wall-mounted		3	7	42	Wayfinding Signage - Pedestrian
D1.04	Wayfinding	Static	yes	Double	Wall-mounted		3	7	42	Wayfinding Signage - Pedestrian
D1.05	Wayfinding	Static	yes	Double	Wall-mounted		3	7	42	Wayfinding Signage - Pedestrian
D1.06	Wayfinding	Static	yes	Double	Wall-mounted		40	10	400	Artistic Wall Graphic Wayfinding
G1.00	Marketing and Activation	Digital	self-illuminating	Single	Freestanding		10	10	100	10x10 Activation Area for Brand
G1.01	Marketing and Activation	Digital	self-illuminating	Single	Freestanding		10	10	100	10x10 Activation Area for Brand
G1.02	Marketing and Activation	Digital	self-illuminating	Single	Freestanding		10	10	100	10x10 Activation Area for Brand
G1.03	Marketing and Activation	Digital	self-illuminating	Single	Freestanding		10	10	100	10x10 Activation Area for Brand

Total Station Digital Signage Area	800
Total Station Static Signage Area	1,584
Total Station Signage Area	2,384

ART CABIN/SYSTEM - EXTERIOR ONLY

Sign Number	Sign Type	Digital/ Static	Illuminated	Single/ Double-Sided	Type	Interior or Exterior-facing	Width (ft)	Height (ft)	Area (SF)	Description
B3.00	Naming Rights Branding/Identification	Static	no	Single			10	10	100	Bottom Branding
B3.01	Naming Rights Branding/Identification	Static	no	Single (4 sides)			12.5	12.5	625	Exterior Cabin Wrap Branding - 4 sides
B3.02	Naming Rights Branding/Identification	Static	no	Double			15	3	90	Attach Arm Branding - 2 sides

Total Cabin Digital Signage Area (per Cabin)	0
x 60 Cabins	0
Total Cabin Static Signage Area (per Cabin)	815
x 60 Cabins	48,900
Total Cabin Signage Area (per Cabin)	815
x 60 Cabins	48,900

Signage Area Summary (SF)	
Total Project Digital Signage Area (excluding cabins)	1,300
Total Project Static Signage Area (excluding cabins)	10,980
Total Project Signage Area (excluding cabins)	12,280
Total Project Digital Signage Area (including cabins)	1,300
Total Project Static Signage Area (including cabins)	50,880
Total Project Signage Area (including cabins)	61,180

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Project
LA ART
Los Angeles, CA

Date 03/09/22
Document EIR Support Document

Key

Not For Construction

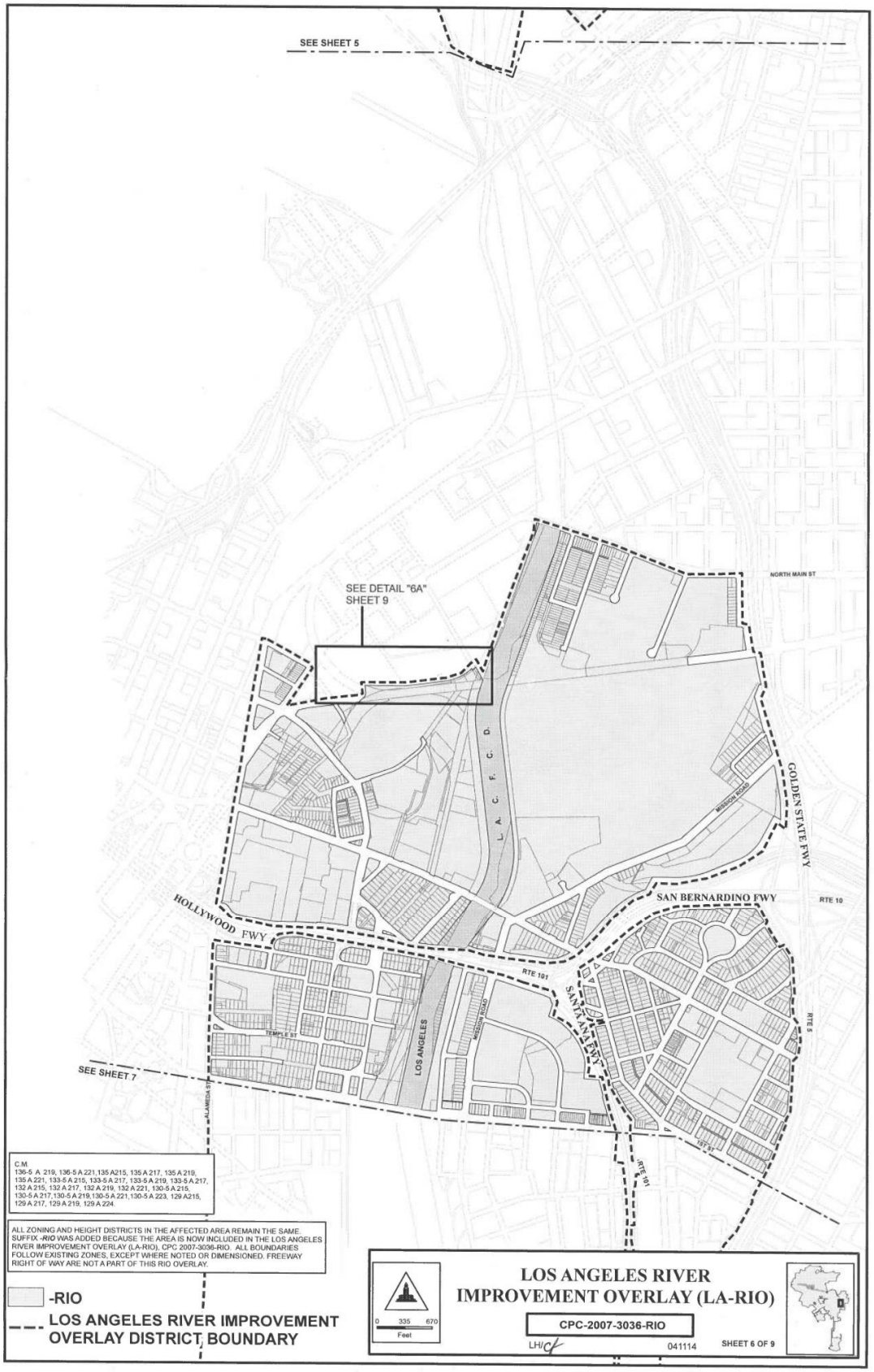
Project ID
19204

Drawing Title
Sign Index

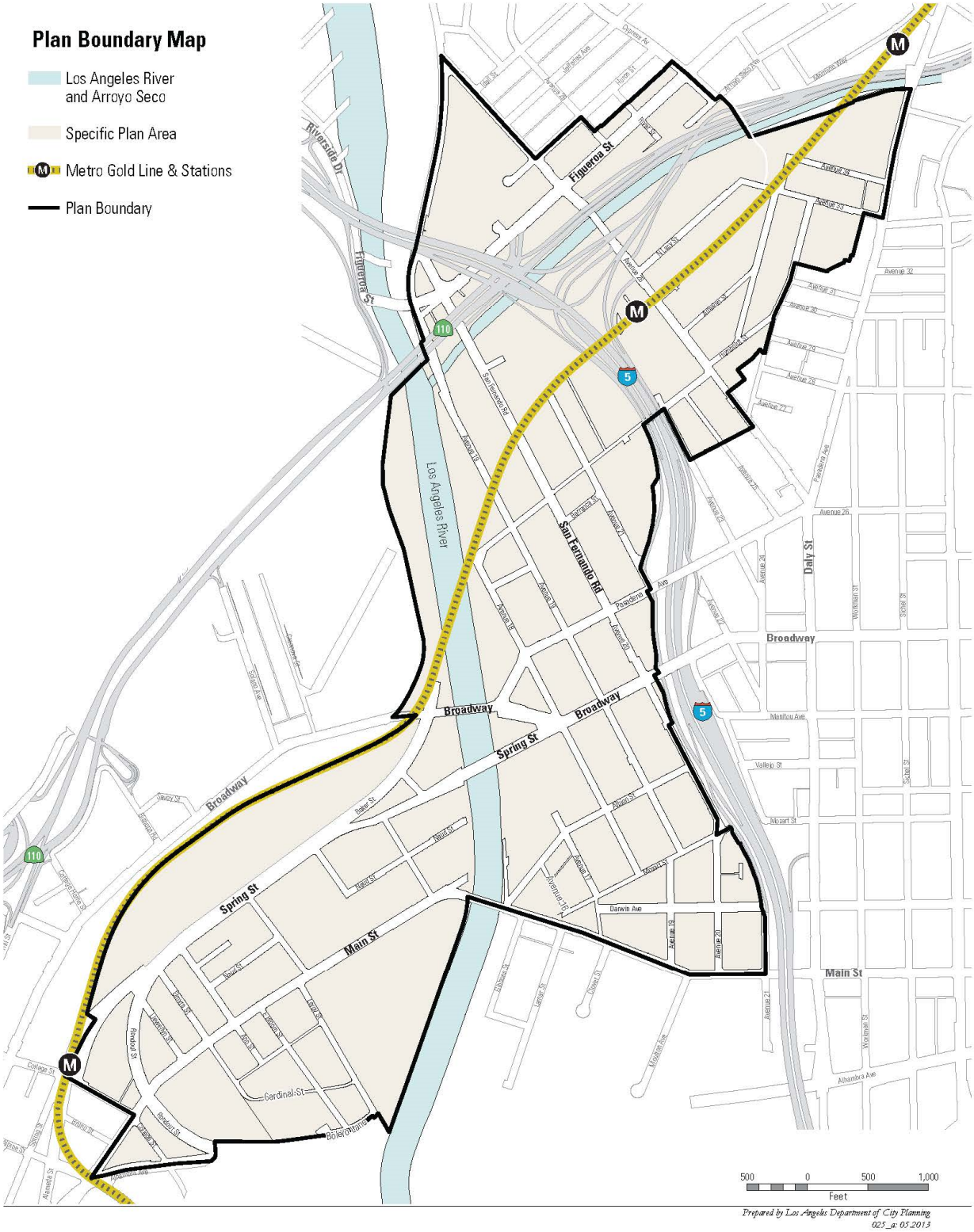
Drawing Number
SG33.0

Discussion Draft | Not For Distribution | March 9, 2022

APPENDIX C: RIO MAP 6



APPENDIX D: CORNFIELD ARROYO SECO SPECIFIC PLAN – PLAN BOUNDARY



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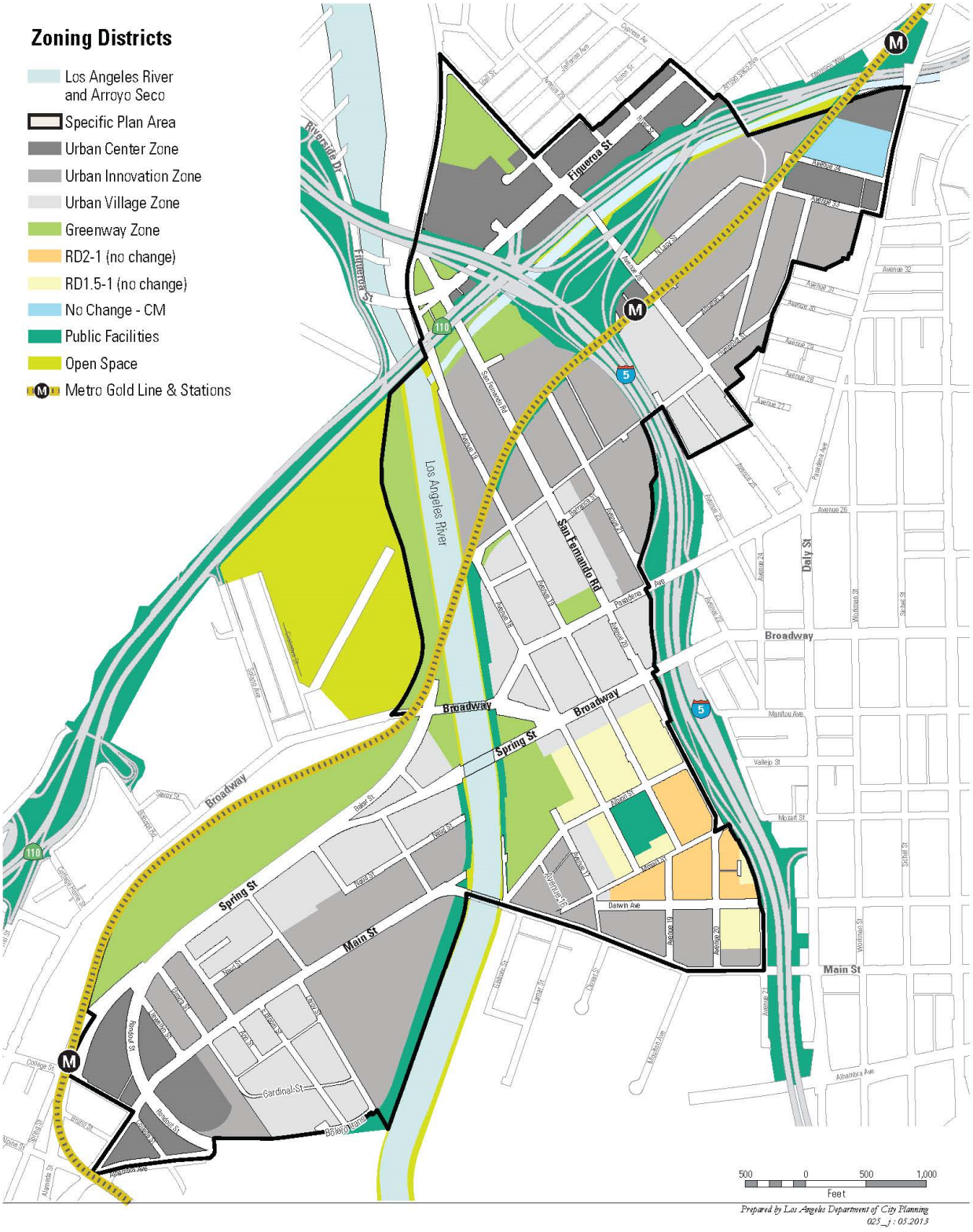
Los Angeles Department of City Planning



Los Angeles Department of City Planning 2-7

E. Exterior Lighting

The Project applicant shall provide a site plan and/or elevation that indicates the location of all exterior lighting fixtures, the maximum initial illuminance value, and the total initial lumens emitted at an angle of 90 degrees and higher.

1. General Requirements

   a. Light levels shall be measured with a photoelectric photometer, following the standard spectral luminous efficiency curve adopted by the International Commission on Illumination.

   b. The outdoor lighting for all projects in the Urban Center, Innovation, and Village Districts shall be designed such that it produces a maximum initial illuminance value no greater than 0.20 horizontal and vertical foot candles when measured at the site boundary and no greater than 0.01 horizontal foot candles when measured 15 feet from the site. No more than 5.0% of the total initial lumens shall be emitted at an angle of 90 degrees or higher from nadir (straight down).

   c. The outdoor lighting for all projects in the Greenway District shall be designed such that it produces a maximum initial illuminance value no greater than 0.01 horizontal and vertical foot candles when measured at the site boundary. None of the total initial lumens shall be emitted at an angle of 90 degrees or higher from nadir (straight down).

   d. Lighting shall be provided along all vehicular access ways and pedestrian walkways.

   e. All low pressure sodium, high pressure sodium, metal halide, fluorescent, quartz, 60 watts or greater incandescent, mercury vapor, and halogen fixtures shall be fully shielded in such a manner as to preclude light pollution or light trespass on any of the following: an abutting residential use district; a lot zoned for residential use; the public right of way, a park, or open space.

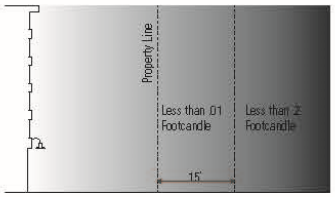
   f. Lighting (exterior building and landscape) shall be directed away from properties and roadways, and shielded as necessary. In particular, no lighting shall be directed at the window of a residential unit located either within or adjacent to a project.

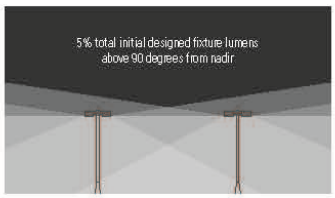
2. **Exemptions.** The following outdoor lighting fixtures and activities are exempt from the requirements of this section:

   a. Fixtures producing light directly by the combustion of fossil fuels, such as kerosene lanterns or gas lamps.



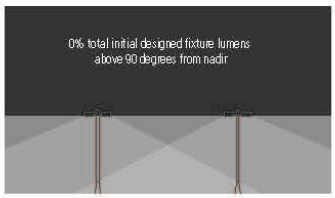
Figure 2.25
Urban Village, Innovation, and G





Greenway





b. All neon, argon or krypton outdoor lighting fixtures.

c. Emergency lighting operated by a public utility or agency during the course of repairing or replacing damaged facilities.

d. Emergency lighting and fixtures necessary to conduct rescue operations, provide emergency medical treatment or address any other emergency situation.

e. Lighting fixtures within five feet of an entrance or exit door and/or alcove of a dwelling unit, not exceeding a height of eight feet and a wattage not exceeding 75 watts provided there is no light pollution, or light trespass, or provided the lighting fixtures are regulated by a motion detector.

f. Internally illuminated signs.

g. Holiday lighting fixtures or displays.

h. Architectural lighting whether it is freestanding or attached to a building, provided the lighting does not exceed an intensity of 60 watts.

i. Pedestrian lighting that does not have an intensity greater than 60 watts.

j. Vertical lighting for the display of flags that does not exceed an intensity of 140 watts.

certifying organizations that ensures uniform application of the CRRC testing and rating procedures, labeling and rating, and such other rating procedures for other factors that improves the accuracy of properties of roofing products affecting energy performance as the CRRC and the Commission may adopt.

4. The entity shall require manufacturers and independent certifying organizations within its program to use only laboratories accredited by the supervisory entity to perform tests in accordance with CRRC-1.
5. The entity shall maintain appropriate guidelines for testing laboratories and manufacturers, including requirements for adequate:
   A. Possession and calibration of equipment;
   B. Education, competence, and training of personnel;
   C. Quality control;
   D. Record keeping and reporting;
   E. Periodic review including, but not limited to, blind testing by laboratories; inspections of products; and inspections of laboratories, and manufacturing facilities;
   F. Challenges to ratings; and
   G. Guidelines to maintain the integrity of the program, including, but not limited to, provisions to avoid conflicts of interest within the rating process.
6. The entity shall be a nonprofit organization and shall maintain reasonable, nondiscriminatory fee schedules for the services it provides, and shall make its fee schedules, the financial information on which fees are based, and financial statements available to its members for inspection.
7. The entity shall provide hearing processes that give laboratories, manufacturers and certifying agencies a fair review of decisions that adversely affect them.
8. The entity shall maintain a policy committee or similar body whose procedures are designed to avoid conflicts of interest in deciding appeals, resolving disputes and setting policy for the certifying organizations in its program.
9. The entity shall publish at least annually a directory of rated products and products that are no longer rated by the CRRC.
10. The entity itself shall be free from conflict-of-interest ties or to undue influence from any particular roofing product manufacturing interest(s), testing or independent certifying organization(s).
11. The entity shall provide or authorize the use of labels that can be used to meet the requirements for showing compliance with the requirements of Sections 140.1, 140.2, 140.3(a)1, 141.0(b)2B, 150.1(c)11, 150.2(b)1H and 150.2(b)2, and this section.
12. The entity's rating program shall allow for multiple participants in each aspect of the program to provide for competition between manufacturers and between testing labs.

Authority: Sections *25402 and* 25402.1, Public Resources Code.

Reference: Sections *25007, 25008, 25218.5, 25310,* 25402, 25402.1, *25402.4, 25402.5, 25402.8 and 25943,* Public Resources Code.

10-114. Determination of outdoor lighting zones and administrative rules for use. This section establishes rules for implementing outdoor lighting zones to show compliance with Section 140.7 of Title 24, California Code of Regulations, Part 6.

(a) **Lighting zones.** Exterior lighting allowances in California vary by Lighting Zones (LZ).

(b) **Lighting zone characteristics.** Table 10-114-A specifies the relative ambient illumination level and the statewide default location for each lighting zone.

(c) **Amending the lighting zone designation.** A local jurisdiction may officially adopt changes to the lighting zone designation of an area by following a public process that allows for formal public notification, review and comment about the proposed change. The local jurisdiction may determine areas where Lighting Zone 4 is applicable and may increase or decrease the lighting zones for areas that are in State Default Lighting Zones 1, 2 and 3, as specified in Table 10-114-A.

(d) **Commission notification, amended outdoor lighting zone designation.** Local jurisdictions who adopt changes to the State Default Lighting Zones shall notify the Commission by providing the following materials to the Executive Director:

1. A detailed specification of the boundaries of the adopted lighting zones, consisting of the county name, the city name if any, the zip code(s) of the redesignated areas, and a description of the physical boundaries within each zip code;
2. A description of the public process that was conducted in adopting the lighting zone changes; and
3. An explanation of how the adopted lighting zone changes are consistent with the specifications of Section 10-114.

(e) The Commission shall have the authority to not allow Lighting Zone changes which the Commission finds to be inconsistent with the specifications of Section 10-114.

Authority: Sections *25402 and* 25402.1, Public Resources Code.

Reference: Sections *25007, 25008, 25218.5, 25310,* 25402, 25402.1, *25402.4, 25402.5, 25402.8 and 25943,* Public Resources Code.

10-115 – Community shared solar electric generation system or community shared battery storage system compliance option for onsite solar electric generation or battery storage requirements.

(a) **Community shared solar electric generation system or battery storage system offset.** A community shared solar system, other community shared renewable system, community shared battery storage system, or combination of the aforementioned systems (hereinafter referred to as a community shared solar or battery stor-

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age system) may be approved by the Commission as a compliance option to partially or totally meet the on-site solar electric generation system and/or battery storage system that is otherwise required by Section 150.1(b)1 of Title 24, California Code of Regulations, Part 6. To be approved, the community shared solar electric generation or community shared battery storage system shall meet the following requirements.

1. **Enforcement agency.** The community shared solar electric generation system and/or community shared battery storage system shall be installed and available for enforcement agency site inspection, no later than the point in time the enforcement agency must physically verify compliance of the building, which would otherwise be required to have an on-site solar electric generation and/or battery storage system, and shall not cause delay in the process of enforcement agency review and approval of that building. The enforcement agency shall have jurisdiction and facilitated access to make site inspections. All documentation for the community solar electric generation system and/or community solar battery storage system that is required to demonstrate compliance for the building shall be completed prior to building permit application.
2. **Energy performance.** The community shared solar electric generation system and/or community shared battery storage system shall be demonstrated to provide the same or better energy performance equal to the partial or total compliance with the energy performance of the on-site solar electric generation and/or battery storage system that would otherwise have been required for the building, computed by compliance software certified for use by the Commission.
3. **Dedicated building energy savings benefits.** The community shared solar electric generation system and/or community shared battery storage system shall provide energy saving benefits directly to the building that would otherwise have been required to have an on-site solar electric generation system and/or battery storage system. The energy savings benefits shall be allocated from the total resource of the community shared solar electric generation system and/or community shared battery storage system in a manner demonstrated to be equivalent to the reductions in

TABLE 10-114-A
LIGHTING ZONE CHARACTERISTICS AND RULES FOR AMENDMENTS BY LOCAL JURISDICTIONS

ZONE	AMBIENT ILLUMINATION	STATEWIDE DEFAULT LOCATION	MOVING UP TO HIGHER ZONES	MOVING DOWN TO LOWER ZONES
LZ0	Very Low	Undeveloped areas of government designated parks, recreation areas, and wildlife preserves.	Undeveloped areas of government designated parks, recreation areas, and wildlife preserves can be designated as LZ1 or LZ2 if they are contained within such a zone.	Not applicable.
LZ1	Low	Developed portion of government designated parks, recreation areas and wildlife preserves. Those that are wholly contained within a higher lighting zone may be considered by the local government as part of that lighting zone.	Developed portion of a government designated park, recreation area, or wildlife preserve, can be designated as LZ2 or LZ3 if they are contained within such a zone.	Not applicable.
LZ2	Moderate	Rural areas, as defined by the 2000 U.S. Census.	Special districts within a default LZ2 zone may be designated as LZ3 or LZ4 by a local jurisdiction. Examples include special commercial districts or areas with special security considerations located within a rural area.	Special districts and government designated parks within a default LZ2 zone may be designated as LZ1 by the local jurisdiction for lower illumination standards, without any size limits.
LZ3	Moderately High	Urban areas, as defined by the 2000 U.S. Census.	Special districts within a default LZ3 may be designated as LZ4 by local jurisdiction for high-intensity nighttime use, such as entertainment or commercial districts or areas with special security considerations requiring very high light levels.	Special districts and government designated parks within a default LZ3 zone may be designated as LZ1 or LZ2 by the local jurisdiction, without any size limits.
LZ4	High	None.	Not applicable.	Not applicable.

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APPENDIX F: IESNA LP-11-20 Environmental Considerations for Outdoor Lighting, Section 4.1: Lighting Zone Definitions

4.1 Lighting Zone Definitions

Because identifying the appropriate outdoor lighting zone is a matter of judgment and consensus, there is no absolute means of determining which lighting zone designation is appropriate for a given area. The same type of lighting application may fall into different lighting zones in different jurisdictions or using different standards. As used in the *Joint IDA-IES Model Lighting Ordinance (MLO)*,[9] the lighting zones are defined with suggested uses:

- **LZ-0: No ambient light**

  LZ-0 (see **Figure 4-1**) includes areas where the natural environment could be seriously and adversely affected by small amounts of electric lighting at night. This includes biological cycles of flora and fauna, and human enjoyment and appreciation of the natural environment. The vision of human residents and users of these areas is adapted to the total darkness, and they do not expect to see electric lighting. Human activity is sparse and is subordinate in importance to the natural environment. There is no expectation for electric lighting. Although some lighting is allowed, it is required to be controlled.

LZ-0	Lighting Zone 0 should be applied to areas in which permanent lighting is not expected and when used, is limited in the amount of lighting and the period of operation. LZ-0 typically includes undeveloped areas of open space, wilderness parks and preserves, areas near astronomical observatories, or any other area where the protection of a dark environment is critical. Special review should be required for any permanent lighting in this zone. Some rural communities may choose to adopt LZ-0 for residential areas.	Recommended default zone for wilderness areas, parks and preserves, and undeveloped rural areas. Includes protected wildlife areas and corridors.

Figure 4-1. LZ-0 description from the MLO.

- **LZ-1: Low ambient light**

  LZ-1 (see **Figure 4-2**) includes developed areas within a natural environment and areas of human activity that are inherently dark at night. Electric lighting at night could adversely affect the biological cycles of flora and fauna, or could interrupt the quiet, dark character of the area. The vision of human residents and users of these areas is adapted to the low light levels, and they do not expect to see electric lighting except where absolutely necessary to improve visibility and safety. In these limited areas, low light levels are appropriate. Lighting is expected to be non-continuous (i.e., pools of light rather than uniform lighting along a path or roadway). After curfew, both light levels and uniformity may be reduced in some areas. An example of a parking lot in an LZ-1 area is shown in **Figure 4-3**.

LZ-1	Lighting Zone 1 pertains to areas that desire low ambient lighting levels. These typically include single and two family residential communities, rural town centers, business parks, and other commercial or industrial/ storage areas typically with limited nighttime activity. May also include the developed areas in parks and other natural settings.	Recommended default zone for rural and low density residential areas. Includes residential single or two family; agricultural zone districts; rural residential zone districts; business parks; open space include preserves in developed areas.

Figure 4-2. LZ-1 description from the MLO.



Figure 4-3. A parking lot located in a Lighting Zone 1 community. (Image courtesy of Bob Parks)

- **LZ-2: Moderate ambient light**

  LZ-2 (see **Figure 4-4**) includes areas human activity (i.e., habitation, recreation, and/or work) where electric lighting may be required for increased mobility and convenience at night. The vision of human residents and users of these areas is adapted to moderate light levels, and they have moderate expectations of electric lighting. Lighting is expected to be non-continuous (e.g., pools of light at crosswalks or intersections, rather than uniform lighting along a path or street). After curfew, both light levels and uniformity may be reduced in some areas as activity levels decline. **Figure 4-5** shows an example of a street located in an LZ-2 area.

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LZ-2	Lighting Zone 2 pertains to areas with moderate ambient lighting levels. These typically include multifamily residential uses, institutional residential uses, schools, churches, hospitals, hotels/motels, commercial and/or businesses areas with evening activities embedded in predominately residential areas, neighborhood serving recreational and playing fields and/or mixed use development with a predominance of residential uses. Can be used to accommodate a district of outdoor sales or industry in an area otherwise zoned LZ-1.	Recommended default zone for light commercial business districts and high density or mixed use residentialdistricts. Includes neighborhood business districts; churches, schools and neighborhood recreation facilities; and light industrial zoning with modest nighttime uses or lighting requirements.

Figure 4-4. LZ-2 description from the MLO.



Figure 4-5. A street located in an LZ-2 area: fully shielded lighting, uniform distribution. (Image courtesy of Bob Parks)

- **LZ-3: Moderately high ambient light**

  LZ-3 (see **Figure 4-6**) includes areas of human activity (i.e., habitation, recreation, and/or work) where electric lighting may be continuous and is required for and convenience at night. The vision of human residents and users of these areas is adapted to moderately high light levels, and they have moderate to high expectations of electric lighting. Lighting is expected to be continuous (e.g. lighting delivered fairly evenly along the length of a path or street). After curfew, both light levels and uniformity may be reduced in some areas as activity levels decline. **Figure 4-7** shows an example of building façade lighting in an LZ-3 area.

LZ-3	Lighting Zone 3 pertains to areas with moderately high lighting levels. These typically include commercial corridors, high intensity suburban commercial areas, town centers, mixed use areas, industrial uses and shipping and rail yards with high night time activity, high use recreational and playing fields, regional shopping malls, car dealerships, gas stations, and other nighttime active exterior retail areas.	Recommended default zone for large cities' business district. Includes business zone districts; commercial mixed use; and heavy industrial and/or manufacturing zone districts.

Figure 4-6. LZ-3 description from the MLO.



Figure 4-7. A long-term care facility in an LZ-3 area: well-shielded lighting—no direct uplight. (Image courtesy of David Roederer)

- **LZ-4: High ambient light**

  LZ-4 (see **Figure 4-8**) includes areas of high levels of human activity at night, including significant interaction among pedestrians and/or vehicles. The vision of humans when outside is typically adapted to moderate light levels. Lighting is continuous and is required for safety and convenience. Expectations for electric lighting are high, both in terms of light levels and uniformity along pathways or streets. However, both light levels and uniformity may be reduced after curfew hours in some areas as activity levels decline. **Figure 4-9** shows an example of an urban entertainment area designated as LZ-4.

LZ-4	Lighting zone 4 pertains to areas of very high ambient lighting levels. LZ-4 should only be used for special cases and is not appropriate for most cities. LZ-4 may be used for extremely unusual installations such as high density entertainment districts, and heavy industrial uses.	Not a default zone. Includes high intensity business or industrial zone districts.

Figure 4-8. LZ-4 description from the MLO.



Figure 4-9. Example of an entertainment district in an LZ-4 urban area. (Image courtesy of Bob Parks)

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APPENDIX G: 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 H: Building Lighting Illuminance Calculation (fc)

Building Lighting illuminance data presented below is derived from the lighting illuminance calculations prepared as per the methods described in Section 6.2 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 Property to the vertical plane where Light Trespass illuminance is under review. Grid data is displayed at ten feet on center, vertical and horizontal.

VP-E1
CALGreen

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125	135
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20
	175	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	155	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	145	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30
	135	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30	0.30
	125	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30	0.40	0.40
	115	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.40	0.40
	105	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.40	0.50
	95	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.50	0.50
	85	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.50	0.50
	75	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40
	65	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20
	55	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-E1
CALGreen

	Distance (ft)	145	155	165	175	185	195	205	215	225	235	245	255
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	175	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	165	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	155	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	145	0.30	0.30	0.20	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	135	0.30	0.30	0.20	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	125	0.40	0.30	0.20	0.20	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	115	0.40	0.40	0.20	0.20	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	105	0.50	0.40	0.30	0.20	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.50	0.50	0.30	0.20	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.60	0.50	0.30	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.50	0.50	0.20	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-E1
LAMC

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125	135
Vertical Illuminance	Elevation (ft above grade) 195	0.30	0.40	0.40	0.40	0.50	0.50	0.50	0.50	0.50	0.60	0.60	0.60	0.60	0.60
	185	0.40	0.40	0.40	0.50	0.50	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
	175	0.40	0.40	0.50	0.50	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
	165	0.40	0.50	0.50	0.50	0.60	0.60	0.60	0.60	0.60	0.70	0.70	0.70	0.70	0.60
	155	0.40	0.40	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.40
	145	0.30	0.30	0.30	0.30	0.30	0.40	0.40	0.30	0.30	0.30	0.30	0.30	0.30	0.30
	135	0.20	0.30	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.40	0.30
	125	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.40	0.40	0.40	0.40	0.40
	115	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.40	0.50	0.50	0.50
	105	0.10	0.20	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.40	0.50	0.50	0.50	0.50
	95	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.50	0.50	0.50	0.60	0.60
	85	0.20	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.40	0.50	0.50	0.50	0.60	0.60
	75	0.20	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.40	0.50	0.50	0.50	0.50	0.50
	65	0.20	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.40	0.50	0.40	0.40	0.40	0.30
	55	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.50	0.40	0.40	0.30	0.20
	45	0.10	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.50	0.50	0.50	0.40	0.40	0.40
	35	0.10	0.10	0.10	0.20	0.20	0.30	0.40	0.50	0.60	0.70	0.70	0.70	0.70	0.90
	25	0.10	0.10	0.10	0.10	0.20	0.20	0.30	0.50	0.70	0.80	0.90	0.90	0.90	1.00
	15	0.10	0.10	0.10	0.10	0.10	0.20	0.30	0.40	0.60	0.90	1.00	0.90	0.90	0.90
	5	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.30	0.50	0.60	0.70	0.70	0.80	0.80
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.20	0.20	0.30	0.30	0.40

VP-E1
LAMC

	Distance (ft)	145	155	165	175	185	195	205	215	225	235	245	255
Vertical Illuminance	Elevation (ft above grade) 195	0.60	0.50	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.10	0.10	0.10
	185	0.60	0.50	0.30	0.30	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10
	175	0.60	0.60	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.10	0.10	0.10
	165	0.60	0.50	0.30	0.30	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10
	155	0.40	0.30	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00
	145	0.30	0.30	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00
	135	0.30	0.30	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00
	125	0.40	0.40	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00
	115	0.50	0.40	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	105	0.50	0.50	0.30	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	95	0.60	0.60	0.30	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	85	0.60	0.60	0.30	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10
	75	0.60	0.50	0.30	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10
	65	0.30	0.20	0.50	0.40	0.30	0.30	0.20	0.20	0.10	0.10	0.10	0.10
	55	0.20	0.90	1.00	0.70	0.50	0.30	0.30	0.20	0.20	0.10	0.10	0.10
	45	1.00	1.90	1.00	0.80	0.60	0.40	0.30	0.20	0.20	0.20	0.10	0.10
	35	1.30	1.70	0.80	0.70	0.50	0.40	0.30	0.20	0.20	0.20	0.10	0.10
	25	1.20	1.30	0.70	0.50	0.40	0.40	0.30	0.20	0.20	0.20	0.10	0.10
	15	1.00	1.00	0.60	0.50	0.40	0.30	0.30	0.20	0.20	0.20	0.10	0.10
	5	0.80	0.80	0.50	0.40	0.30	0.30	0.20	0.20	0.20	0.10	0.10	0.10
Horizontal Illuminance	0	0.50	0.60	0.70	0.60	0.50	0.50	0.40	0.30	0.30	0.20	0.20	0.20

VP-E2

CALGreen / LAMC

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.20	0.30	0.30	0.30	0.30	0.30	0.20	0.10	0.10	0.10
	185	0.10	0.10	0.20	0.30	0.30	0.30	0.20	0.20	0.10	0.10	0.10
	175	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10
	165	0.10	0.10	0.10	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.00
	155	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00
	145	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00
	135	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00
	125	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00
	115	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00
	105	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	95	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	85	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	75	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	65	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-E4
CALGreen

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	185	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	175	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	165	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	155	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	145	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	135	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-E4
CALGreen

	Distance (ft)	135	145	155	165	175	185	195	205	215	225	235	245	255	265	275	285
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	175	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	155	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	145	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	135	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	125	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	115	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	105	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	95	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-E4
CALGreen

	Distance (ft)	295	305	315	325	335	345	355	365	375	385	395	405	415	425	435	445
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-E4
CALGreen

	Distance (ft)	455	465	475	485	495	505	515	525	535	545	555	565	575	585	595	605
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-E4
CALGreen

	Distance (ft)	615	625	635	645	655	665	675	685	695	705	715
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-E4
LAMC

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	185	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	175	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	165	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	155	0.30	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	145	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.20	0.20
	135	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
	125	0.40	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
	115	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.30	0.30	0.30	0.40	0.40	0.40
	105	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.30	0.40	0.40	0.40	0.40	0.40
	95	0.50	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
	85	0.50	0.50	0.50	0.40	0.40	0.40	0.40	0.40	0.40	0.50	0.50	0.40	0.40
	75	0.50	0.50	0.50	0.40	0.40	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	65	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	55	0.60	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	45	0.60	0.60	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	35	0.60	0.60	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	25	0.60	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	15	0.40	0.40	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.40
	5	0.30	0.40	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.40	0.40	0.30
Horizontal Illuminance	0	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00

VP-E4
LAMC

	Distance (ft)	135	145	155	165	175	185	195	205
Vertical Illuminance	Elevation (ft above grade) 195	0.20	0.20	0.20	0.20	0.30	0.30	0.40	0.40
	185	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30
	175	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30
	165	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	155	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	145	0.20	0.30	0.20	0.20	0.30	0.20	0.20	0.20
	135	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
	125	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
	115	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
	105	0.40	0.40	0.30	0.30	0.30	0.30	0.30	0.30
	95	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.30
	85	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
	75	0.50	0.50	0.50	0.50	0.50	0.50	0.40	0.40
	65	0.50	0.50	0.50	0.50	0.50	0.50	0.40	0.40
	55	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.40
	45	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.40
	35	0.50	0.50	0.50	0.60	0.50	0.50	0.50	0.40
	25	0.50	0.50	0.50	0.60	0.50	0.50	0.50	0.40
	15	0.00	0.00	0.10	0.50	0.50	0.40	0.40	0.40
	5	0.00	0.00	0.50	0.50	0.50	0.50	0.50	0.40
Horizontal Illuminance	0	0.00	0.00	0.10	0.20	0.10	0.10	0.10	0.10

VP-N1
CALGreen

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-N1
CALGreen

	Distance (ft)	135	145	155	165	175	185	195	205	215	225	235
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-N1
LAMC

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-N1
LAMC

	Distance (ft)	135	145	155	165	175	185	195	205	215	225	235
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-N1
RIO

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-N1
RIO

	Distance (ft)	135	145	155	165	175	185	195	205	215	225	235
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-N1
RIO +15'

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-N1
RIO +15'

	Distance (ft)	135	145	155	165	175	185	195	205	215	225	235
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-N3
CALGreen

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	185	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	175	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	165	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.20	0.20
	155	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.20	0.30	0.20	0.20
	145	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.20
	135	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.20
	125	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	115	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.10	0.10
	105	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	95	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00
	85	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00
	75	0.10	0.10	0.10	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	65	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10
	55	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10
	45	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10
	35	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10
	25	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10
	15	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10
	5	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10

VP-N3
CALGreen

	Distance (ft)	135	145	155	165	175	185	195	205	215	225	235	245	255	265	275	285
Vertical Illuminance	Elevation (ft above grade) 195	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	185	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	175	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	165	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.20	0.20	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00
	85	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	25	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	15	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	5	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-N3
CALGreen

	Distance (ft)	295	305	315	325	335	345	355	365	375	385	395	405	415	425	435	445
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-N3
LAMC

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	185	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	175	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	165	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.20	0.20
	155	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.20	0.30	0.20	0.20
	145	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.20
	135	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.20
	125	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	115	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.10	0.10
	105	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	95	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00
	85	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00
	75	0.10	0.10	0.10	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	65	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10
	55	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10
	45	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10
	35	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10
	25	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10
	15	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10
	5	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10

VP-N3
LAMC

	Distance (ft)	135	145	155	165	175	185	195	205	215	225	235	245	255	265	275	285
Vertical Illuminance	Elevation (ft above grade) 195	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	185	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	175	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	165	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.20	0.20	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00
	85	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	25	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	15	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	5	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-N3
LAMC

	Distance (ft)	295	305	315	325	335	345	355	365	375	385	395	405	415	425	435	445
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-S1
CALGreen

	Distance (ft)	5	15	25	35	45	55	65	75	85	95
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	135	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	125	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	115	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-S1
LAMC

	Distance (ft)	5	15	25	35	45	55	65	75	85	95
Vertical Illuminance	Elevation (ft above grade) 195	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10
	185	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.10	0.10
	175	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.10
	165	0.40	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.10
	155	0.30	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.10
	145	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	135	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10
	125	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.10
	115	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	105	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	95	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	85	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.10	0.10
	75	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00
	65	0.10	0.10	0.10	0.00	0.10	0.10	0.10	0.00	0.00	0.00
	55	0.10	0.00	0.00	0.00	0.00	0.10	0.10	0.00	0.00	0.00
	45	0.00	0.10	0.00	0.00	0.00	0.10	0.10	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.10	0.10	0.10
	15	0.10	0.00	0.00	0.00	0.00	0.00	0.50	0.30	0.10	0.10
	5	0.10	0.00	0.00	0.00	0.00	0.00	0.50	0.20	0.10	0.10
Horizontal Illuminance	0	0.20	0.10	0.10	0.00	0.00	0.00	0.20	0.10	0.10	0.00

VP-S1
RIO

	Distance (ft)	5	15	25	35	45	55	65	75	85	95
Vertical Illuminance	Elevation (ft above grade) 195	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10
	185	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.10	0.10
	175	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.10
	165	0.40	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.10
	155	0.30	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.10
	145	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	135	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10
	125	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.10
	115	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	105	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	95	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	85	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.10	0.10
	75	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00
	65	0.10	0.10	0.10	0.00	0.10	0.10	0.10	0.00	0.00	0.00
	55	0.10	0.00	0.00	0.00	0.00	0.10	0.10	0.00	0.00	0.00
	45	0.00	0.10	0.00	0.00	0.00	0.10	0.10	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.10	0.10	0.10
	15	0.10	0.00	0.00	0.00	0.00	0.00	0.50	0.30	0.10	0.10
	5	0.10	0.00	0.00	0.00	0.00	0.00	0.50	0.20	0.10	0.10
Horizontal Illuminance	0	0.20	0.10	0.10	0.00	0.00	0.00	0.20	0.10	0.10	0.00

VP-S1
RIO +15'

	Distance (ft)	5	15	25	35	45	55	65	75
Vertical Illuminance	195	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20
	185	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.20
	175	0.40	0.40	0.30	0.30	0.30	0.20	0.20	0.20
	165	0.40	0.40	0.40	0.30	0.30	0.30	0.20	0.20
	155	0.30	0.30	0.30	0.30	0.30	0.30	0.20	0.20
	145	0.30	0.30	0.30	0.30	0.30	0.30	0.20	0.20
	135	0.20	0.20	0.30	0.20	0.30	0.30	0.20	0.20
	125	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20
	115	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20
	105	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20
	95	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	85	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	75	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00
	65	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00
	55	0.00	0.10	0.00	0.00	0.10	0.10	0.10	0.00
	45	0.00	0.00	0.00	0.00	0.10	0.10	0.00	0.00
	35	0.10	0.00	0.00	0.00	0.10	0.00	0.00	0.00
	25	0.10	0.00	0.00	0.00	0.10	0.00	0.00	0.10
	15	0.10	0.00	0.00	0.00	0.10	0.00	0.10	0.10
	5	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.10
Horizontal Illuminance	0	0.20	0.10	0.10	0.10	0.00	0.00	0.00	0.00

VP-S2
CALGreen

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-S2
RIO

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-S2
RIO +15'

	Distance (ft)	5	15	25	35	45	55	65	75	85	95
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-S3
LAMC

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-S3
LAMC

	Distance (ft)	135	145	155	165
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00

VP-S4
CALGreen

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	175	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	165	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	155	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	145	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	135	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	125	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	115	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	105	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	95	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	85	0.30	0.20	0.20	0.20	0.20	0.10	0.20	0.20	0.20	0.10	0.10	0.10	0.10
	75	0.30	0.30	0.20	0.20	0.20	0.10	0.20	0.20	0.20	0.20	0.10	0.10	0.10
	65	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10
	55	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	45	0.40	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	35	0.40	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	25	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	15	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	5	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-S4
CALGreen

	Distance (ft)	135	145	155	165	175	185	195	205
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	175	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	155	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	145	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	135	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	125	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	115	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	105	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	95	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	85	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	75	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	65	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	55	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	45	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	35	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10
	25	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-S4
LAMC

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.30	0.30	0.30	0.40	0.40	0.40	0.50	0.50	0.50	0.40	0.40	0.50	0.50
	185	0.20	0.30	0.30	0.30	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.40
	175	0.20	0.30	0.30	0.30	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.30
	165	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.30
	155	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.40	0.40	0.40	0.30	0.30
	145	0.20	0.20	0.20	0.30	0.30	0.40	0.50	0.50	0.60	0.70	0.70	0.80	0.80
	135	0.20	0.20	0.20	0.20	0.30	0.30	0.40	0.50	0.50	0.60	0.60	0.70	0.70
	125	0.20	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.50	0.50	0.60	0.60	0.60
	115	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.50	0.50	0.60	0.60
	105	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.40	0.50	0.50	0.50
	95	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.40	0.50	0.50
	85	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.40	0.40
	75	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.40
	65	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	55	0.10	0.10	0.10	0.20	0.20	0.20	0.10	0.10	0.10	0.20	0.20	0.20	0.20
	45	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	35	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	25	0.10	0.10	0.10	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00
	15	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-S4
LAMC

	Distance (ft)	135	145	155	165	175	185	195	205	215	225	235	245	255	265	275	285
Vertical Illuminance	Elevation (ft above grade) 195	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	185	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
	175	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
	165	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
	155	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	145	0.80	0.60	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.20
	135	0.70	0.70	0.60	0.50	0.40	0.40	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.20	0.20	0.20
	125	0.70	0.60	0.60	0.50	0.40	0.40	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.40	0.40
	115	0.60	0.60	0.50	0.50	0.40	0.40	0.40	0.40	0.30	0.30	0.40	0.40	0.40	0.40	0.40	0.40
	105	0.50	0.50	0.50	0.50	0.50	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
	95	0.50	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.30	0.30	0.30	0.40	0.40	0.40	0.30	0.30
	85	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
	75	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
	65	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.20
	55	0.20	0.20	0.20	0.20	0.20	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	45	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	35	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-S4
LAMC

	Distance (ft)	295	305	315	325	335	345	355	365	375	385	395	405	415	425	435	445
Vertical Illuminance	Elevation (ft above grade) 195	0.40	0.40	0.40	0.40	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10
	185	0.40	0.40	0.30	0.30	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10
	175	0.30	0.30	0.30	0.20	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10
	165	0.30	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10
	155	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10
	145	0.20	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10
	135	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10
	125	0.40	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10
	115	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10
	105	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10
	95	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10
	85	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10
	75	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10
	65	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10
	55	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10
	45	0.20	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-S4
LAMC

	Distance (ft)	455	465	475	485	495	505	515	525	535	545	555	565	575	585	595	605
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-S4
LAMC

	Distance (ft)	615	625	635	645	655	665	675	685	695	705	715
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-S5
CALGreen

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	175	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	165	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	155	0.20	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.20	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.20	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-S5
LAMC

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	175	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	165	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	155	0.20	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.20	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.20	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-S6
CALGreen

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	175	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	155	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	145	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	135	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	125	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	115	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	105	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	95	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00
	85	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-S6
CALGreen

	Distance (ft)	135	145	155	165	175	185	195	205	215
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	185	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	175	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	165	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	155	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-S7
LAMC

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	175	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	155	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00
	145	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00
	135	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00
	125	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00
	115	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	105	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.10	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.10	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-S7
LAMC

	Distance (ft)	135	145	155	165	175	185	195
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	185	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	175	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W1
CALGreen

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W1
CALGreen

	Distance (ft)	135	145	155	165	175	185	195	205	215	225	235	245
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	185	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	175	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20
	165	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20
	155	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20
	145	0.00	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.30	0.30
	135	0.00	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.30
	125	0.00	0.00	0.10	0.10	0.10	0.10	0.20	0.20	0.30	0.30	0.30	0.40
	115	0.00	0.00	0.10	0.10	0.10	0.10	0.20	0.30	0.30	0.40	0.40	0.40
	105	0.00	0.00	0.10	0.10	0.10	0.10	0.20	0.30	0.30	0.40	0.50	0.50
	95	0.00	0.00	0.00	0.10	0.10	0.10	0.20	0.30	0.40	0.50	0.50	0.50
	85	0.00	0.00	0.00	0.00	0.10	0.10	0.20	0.30	0.40	0.50	0.50	0.60
	75	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.20	0.30	0.40	0.50	0.50
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.20	0.20	0.30	0.30
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W1
LAMC

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	185	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	175	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	165	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	75	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	65	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	55	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	45	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	35	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	25	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	15	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	5	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10

VP-W1
LAMC

	Distance (ft)	135	145	155	165	175	185	195	205	215	225	235	245
Vertical Illuminance	Elevation (ft above grade) 195	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.40	0.50	0.50	0.50
	185	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.40	0.50	0.50	0.50
	175	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.50	0.50	0.50	0.60	0.60
	165	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.50	0.50	0.60	0.60	0.70
	155	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.40
	145	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.30
	135	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.30
	125	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.30	0.40
	115	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.30	0.30	0.40	0.40	0.40
	105	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.30	0.40	0.40	0.50	0.50
	95	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.40	0.50	0.50	0.60
	85	0.10	0.10	0.10	0.10	0.20	0.20	0.30	0.30	0.40	0.50	0.60	0.60
	75	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.40	0.50	0.50	0.50
	65	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.20	0.20	0.30	0.30	0.30
	55	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.40	0.20	0.10	0.10	0.10
	45	0.20	0.20	0.20	0.30	0.40	0.50	0.50	0.50	0.60	0.20	0.10	0.10
	35	0.20	0.20	0.20	0.30	0.40	0.50	0.50	0.60	0.60	0.50	0.30	0.20
	25	0.20	0.20	0.20	0.30	0.40	0.40	0.50	0.60	0.60	0.60	0.50	0.30
	15	0.20	0.20	0.20	0.30	0.40	0.40	0.50	0.60	0.60	0.70	0.60	0.40
	5	0.20	0.20	0.20	0.30	0.30	0.40	0.50	0.60	0.60	0.60	0.60	0.50
Horizontal Illuminance	0	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.40	0.40	0.40	0.30

VP-W1
RIO

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	185	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	175	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	165	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10
	75	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	65	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	55	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	45	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	35	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	25	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	15	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	5	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10

VP-W1
RIO

	Distance (ft)	135	145	155	165	175	185	195	205	215	225	235	245
Vertical Illuminance	Elevation (ft above grade) 195	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.40	0.50	0.50	0.50
	185	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.40	0.50	0.50	0.50
	175	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.50	0.50	0.50	0.60
	165	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.50	0.50	0.60	0.60	0.60
	155	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.30	0.40
	145	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.30	0.30
	135	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.30
	125	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.40	0.40
	115	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.50
	105	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.30	0.40	0.50	0.50	0.50
	95	0.10	0.10	0.10	0.10	0.10	0.20	0.30	0.30	0.50	0.60	0.60	0.60
	85	0.10	0.10	0.10	0.10	0.20	0.20	0.30	0.40	0.50	0.60	0.70	0.70
	75	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.50	0.60	0.70	0.60
	65	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
	55	0.20	0.20	0.20	0.30	0.40	0.50	0.50	0.50	0.20	0.10	0.10	0.10
	45	0.20	0.20	0.30	0.30	0.40	0.50	0.60	0.70	0.70	0.30	0.10	0.00
	35	0.20	0.20	0.30	0.30	0.40	0.50	0.60	0.70	0.80	0.70	0.40	0.10
	25	0.20	0.20	0.30	0.30	0.40	0.50	0.60	0.70	0.80	0.80	0.70	0.40
	15	0.20	0.20	0.30	0.30	0.40	0.50	0.50	0.60	0.70	0.80	0.70	0.60
	5	0.20	0.20	0.20	0.30	0.30	0.40	0.50	0.60	0.70	0.70	0.80	0.60
Horizontal Illuminance	0	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.50	0.50	0.50	0.50	0.40

VP-W1
RIO +15'

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20
	185	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20
	175	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20
	165	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	75	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	65	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	55	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	45	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	35	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	25	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	15	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	5	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10

VP-W1
RIO +15'

	Distance (ft)	135	145	155	165	175	185	195	205	215	225
Vertical Illuminance	Elevation (ft above grade) 195	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.40	0.50	0.50
	185	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.40	0.50	0.50
	175	0.20	0.20	0.30	0.30	0.40	0.40	0.40	0.50	0.50	0.60
	165	0.20	0.30	0.30	0.30	0.40	0.40	0.50	0.50	0.60	0.70
	155	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40
	145	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.30	0.30
	135	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.30
	125	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30
	115	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.30
	105	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.40
	95	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.40
	85	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.40
	75	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30
	65	0.20	0.20	0.20	0.20	0.30	0.20	0.20	0.20	0.20	0.20
	55	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30	0.20	0.20
	45	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.40	0.30	0.20
	35	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.40	0.40	0.30
	25	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.50	0.50	0.40
	15	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.50	0.50	0.40
	5	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.50	0.50	0.50
Horizontal Illuminance	0	0.10	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.20	0.20

VP-W2
RIO

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W2
RIO

	Distance (ft)	135	145	155	165	175	185	195	205	215	225	235	245	255	265	275	285
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W2
RIO

	Distance (ft)	295	305
Vertical Illuminance	195	0.00	0.00
	185	0.00	0.00
	175	0.00	0.00
	165	0.00	0.00
	155	0.00	0.00
	145	0.00	0.00
	135	0.00	0.00
	125	0.00	0.00
	115	0.00	0.00
	105	0.00	0.00
	95	0.00	0.00
	85	0.00	0.00
	75	0.00	0.00
	65	0.00	0.00
	55	0.00	0.00
	45	0.00	0.00
	35	0.00	0.00
	25	0.00	0.00
	15	0.00	0.00
	5	0.00	0.00
Horizontal Illuminance	0	0.00	0.00

Elevation (ft above grade)

VP-W2
RIO +15'

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W2
RIO +15'

	Distance (ft)	135	145	155	165	175	185	195	205	215	225	235	245	255	265	275	285
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W2
RIO +15'

	Distance (ft)	295	305
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00
	185	0.00	0.00
	175	0.00	0.00
	165	0.00	0.00
	155	0.00	0.00
	145	0.00	0.00
	135	0.00	0.00
	125	0.00	0.00
	115	0.00	0.00
	105	0.00	0.00
	95	0.00	0.00
	85	0.00	0.00
	75	0.00	0.00
	65	0.00	0.00
	55	0.00	0.00
	45	0.00	0.00
	35	0.00	0.00
	25	0.00	0.00
	15	0.00	0.00
	5	0.00	0.00
Horizontal Illuminance	0	0.00	0.00

VP-W3
CALGreen

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	55	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W3
CALGreen

	Distance (ft)	135	145	155	165	175	185	195	205	215	225	235	245	255	265	275	285
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	175	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	155	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	145	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	135	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W3
CALGreen

	Distance (ft)	295	305	315	325	335	345	355	365	375	385	395	405	415	425	435	445
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W3
CALGreen

	Distance (ft)	455	465	475	485	495	505	515	525	535	545	555	565	575	585	595	605
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W3
CALGreen

	Distance (ft)	615	625	635	645	655	665	675	685	695	705	715	725	735	745	755	765
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W3
CALGreen

	Distance (ft)	775	785	795	805	815	825	835	845	855	865
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W3
LAMC

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30
	185	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30
	175	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.40
	165	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30
	155	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30
	145	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30
	135	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30
	125	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30
	115	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30
	105	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30
	95	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30
	85	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30
	75	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30
	65	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30
	55	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30
	45	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	35	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20
	25	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20
	15	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20
	5	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W3
LAMC

	Distance (ft)	135	145	155	165	175	185	195	205	215	225	235	245	255	265	275	285
Vertical Illuminance	Elevation (ft above grade) 195	0.30	0.40	0.40	0.40	0.40	0.50	0.50	0.40	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.60
	185	0.30	0.40	0.40	0.40	0.40	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	175	0.30	0.30	0.40	0.40	0.40	0.40	0.50	0.50	0.60	0.60	0.70	0.50	0.50	0.50	0.50	0.50
	165	0.40	0.40	0.40	0.40	0.40	0.40	0.50	0.50	0.60	0.60	0.70	0.70	0.80	0.50	0.50	0.50
	155	0.30	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.50	0.60	0.60	0.70	0.70	0.70	0.70	0.50
	145	0.30	0.30	0.30	0.30	0.30	0.40	0.40	0.40	0.50	0.50	0.50	0.60	0.60	0.70	0.70	0.70
	135	0.30	0.30	0.30	0.30	0.30	0.30	0.40	0.40	0.40	0.50	0.50	0.50	0.60	0.60	0.60	0.60
	125	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.40	0.40	0.40	0.40	0.50	0.50	0.50	0.60
	115	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.40	0.40	0.40	0.50	0.50	0.50
	105	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.40	0.40	0.40	0.40	0.50	0.50
	95	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.40	0.40	0.40	0.40	0.40	0.40
	85	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.40	0.40	0.40	0.40	0.40	0.40	0.40
	75	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
	65	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
	55	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.40	0.40	0.40	0.40	0.40	0.40
	45	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.40	0.40	0.40	0.40
	35	0.20	0.20	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.40	0.40	0.40
	25	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.40
	15	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
	5	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
Horizontal Illuminance	0	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10

VP-W3
LAMC

	Distance (ft)	295	305	315	325	335	345	355	365	375	385	395	405	415	425	435	445
Vertical Illuminance	Elevation (ft above grade) 195	0.60	0.50	0.60	0.50	0.50	0.50	0.40	0.40	0.30	0.30	0.20	0.20	0.10	0.10	0.10	0.10
	185	0.60	0.50	0.50	0.50	0.40	0.40	0.30	0.30	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10
	175	0.60	0.50	0.40	0.40	0.40	0.30	0.30	0.30	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10
	165	0.50	0.50	0.50	0.40	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10
	155	0.50	0.50	0.50	0.40	0.40	0.30	0.30	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10
	145	0.70	0.50	0.50	0.40	0.40	0.40	0.30	0.30	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10
	135	0.60	0.60	0.50	0.40	0.40	0.40	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.10	0.10	0.10
	125	0.60	0.50	0.50	0.40	0.40	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10
	115	0.50	0.50	0.50	0.40	0.40	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	105	0.50	0.50	0.40	0.40	0.40	0.30	0.30	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20
	95	0.40	0.40	0.40	0.40	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20
	85	0.40	0.40	0.40	0.40	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.20	0.20	0.20
	75	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.30	0.20	0.20
	65	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.30	0.20	0.20
	55	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.30	0.20	0.20
	45	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.30	0.20	0.20
	35	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.30	0.20	0.20
	25	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.20	0.20	0.20
	15	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.30	0.20	0.20	0.20	0.20
	5	0.30	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20
Horizontal Illuminance	0	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10

VP-W3
LAMC

	Distance (ft)	455	465	475	485	495	505	515	525	535	545	555	565	575	585	595	605
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00
	175	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00
	155	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	145	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	135	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	125	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	115	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	105	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	95	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	85	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	75	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	65	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	55	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	45	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	35	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	25	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	15	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	5	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Horizontal Illuminance	0	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00

VP-W3
LAMC

	Distance (ft)	615	625	635	645	655	665	675	685	695	705	715	725	735	745	755	765
Vertical Illuminance	195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Elevation (ft above grade)

VP-W3
LAMC

	Distance (ft)	775	785	795	805	815	825	835	845	855	865
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W4
RIO

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	135	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	125	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	115	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	95	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.20
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W4
RIO

	Distance (ft)	135	145	155	165	175	185	195	205	215
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.20	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.20	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.20	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.20	0.20	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.20	0.20	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.30	0.20	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.30	0.20	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.30	0.20	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.20	0.20	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.20	0.20	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W4
RIO +15'

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W4
RIO +15'

	Distance (ft)	135	145	155	165	175	185	195	205	215
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W5
CALGreen

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.10	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	185	0.00	0.00	0.10	0.10	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	175	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	155	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20
	145	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20
	135	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20
	125	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	115	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	105	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	95	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00
	85	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	75	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	65	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W5
LAMC

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.10	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	185	0.00	0.00	0.10	0.10	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	175	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	155	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20
	145	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20
	135	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20
	125	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	115	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	105	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	95	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00
	85	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	75	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	65	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

APPENDIX I: Sign Lighting Illuminance Calculation (fc)

Sign Lighting illuminance data presented below is derived from the lighting illuminance calculations prepared as per the methods described in Section 6.2 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 Property to the vertical plane where Light Trespass illuminance is under review. Grid data is displayed at ten feet on center, vertical and horizontal.

VP-E1

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125	135
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	115	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	105	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.00	0.00
	95	0.30	0.30	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.00
	85	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.20	0.10	0.10	0.10	0.10	0.10
	75	0.40	0.50	0.50	0.50	0.60	0.50	0.50	0.40	0.30	0.20	0.10	0.10	0.10	0.10
	65	0.50	0.60	0.60	0.70	0.70	0.80	0.70	0.60	0.50	0.30	0.20	0.20	0.20	0.10
	55	0.60	0.70	0.80	0.90	0.90	1.00	1.00	0.80	0.60	0.40	0.30	0.30	0.30	0.30
	45	0.70	0.80	0.90	1.10	1.20	1.30	1.30	1.10	0.90	0.60	0.50	0.50	0.50	0.50
	35	0.70	0.90	1.10	1.20	1.40	1.60	1.70	1.50	1.20	0.80	0.60	0.70	0.80	0.90
	25	0.80	0.90	1.20	1.40	1.70	2.00	2.10	2.00	1.70	1.20	0.90	1.20	1.30	1.30
	15	0.80	1.00	1.20	1.50	2.00	2.40	2.60	2.50	2.10	1.80	1.30	1.80	1.60	1.40
	5	0.70	0.80	1.00	1.20	1.60	2.20	2.70	2.80	2.40	2.40	2.30	2.90	1.70	1.30
Horizontal Illuminance	0	0.20	0.20	0.30	0.20	0.00	0.00	0.20	0.40	0.50	0.60	0.80	0.50	0.70	0.50

VP-E1

	Distance (ft)	145	155	165	175	185	195	205	215	225	235	245	255
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10
	165	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	155	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	145	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	135	0.00	0.00	0.00	0.00	0.10	0.20	0.20	0.20	0.20	0.20	0.10	0.10
	125	0.00	0.00	0.00	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	115	0.00	0.00	0.00	0.10	0.20	0.30	0.30	0.30	0.30	0.20	0.20	0.20
	105	0.00	0.00	0.10	0.30	0.30	0.40	0.40	0.40	0.30	0.30	0.30	0.30
	95	0.00	0.10	0.10	0.40	0.50	0.50	0.50	0.50	0.40	0.40	0.30	0.30
	85	0.10	0.10	0.40	0.60	0.70	0.70	0.70	0.60	0.50	0.40	0.30	0.30
	75	0.10	0.20	0.60	0.80	0.90	0.90	0.80	0.60	0.50	0.40	0.30	0.30
	65	0.20	0.50	0.90	1.10	1.10	1.00	0.80	0.60	0.50	0.40	0.30	0.30
	55	0.40	0.80	1.20	1.40	1.20	1.00	0.80	0.70	0.60	0.50	0.40	0.30
	45	0.70	1.20	1.50	1.60	1.40	1.20	1.00	0.80	0.70	0.50	0.40	0.40
	35	1.10	1.60	1.80	1.80	1.70	1.30	1.10	0.90	0.70	0.60	0.50	0.40
	25	1.50	1.90	1.80	1.90	1.70	1.40	1.10	0.90	0.70	0.60	0.50	0.40
	15	1.50	2.00	1.80	2.20	1.80	1.50	1.20	0.90	0.70	0.60	0.50	0.40
	5	1.40	1.90	1.60	2.50	1.70	1.30	1.00	0.80	0.70	0.50	0.40	0.40
Horizontal Illuminance	0	0.40	0.60	0.90	1.00	1.00	0.80	0.70	0.60	0.50	0.40	0.30	0.20

VP-E2

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	175	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	165	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	155	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	145	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	135	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	125	0.30	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10
	115	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10
	105	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.10
	95	0.40	0.40	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20
	85	0.40	0.40	0.40	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20
	75	0.50	0.50	0.40	0.40	0.30	0.30	0.30	0.20	0.20	0.20	0.20
	65	0.50	0.50	0.50	0.40	0.40	0.30	0.30	0.30	0.20	0.20	0.20
	55	0.50	0.50	0.50	0.50	0.40	0.40	0.30	0.30	0.30	0.20	0.20
	45	0.60	0.60	0.50	0.50	0.40	0.40	0.30	0.30	0.30	0.20	0.20
	35	0.60	0.60	0.50	0.50	0.40	0.40	0.40	0.30	0.30	0.30	0.20
	25	0.60	0.60	0.50	0.50	0.50	0.40	0.40	0.30	0.30	0.30	0.20
	15	0.60	0.60	0.50	0.50	0.50	0.40	0.40	0.30	0.30	0.30	0.20
	5	0.50	0.50	0.50	0.50	0.40	0.40	0.30	0.30	0.30	0.30	0.20
Horizontal Illuminance	0	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10

VP-E4

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	175	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	155	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	145	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	135	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	125	0.30	0.30	0.30	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	115	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10
	105	0.30	0.30	0.30	0.30	0.30	0.30	0.20	0.20	0.10	0.10	0.10	0.10	0.10
	95	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20
	85	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.20	0.20	0.20	0.20	0.20
	75	0.40	0.50	0.50	0.50	0.40	0.40	0.40	0.30	0.20	0.20	0.20	0.20	0.20
	65	0.50	0.50	0.50	0.50	0.50	0.40	0.40	0.30	0.20	0.20	0.20	0.20	0.20
	55	0.50	0.50	0.50	0.50	0.40	0.40	0.40	0.30	0.20	0.20	0.20	0.20	0.20
	45	0.40	0.50	0.50	0.50	0.40	0.40	0.30	0.30	0.20	0.10	0.10	0.10	0.20
	35	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.20	0.20	0.10	0.10	0.10	0.10
	25	0.10	0.20	0.20	0.20	0.30	0.20	0.10	0.10	0.10	0.10	0.00	0.00	0.00
	15	0.10	0.20	0.30	0.40	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.10	0.30	0.40	0.40	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-E4

	Distance (ft)	135	145	155	165	175	185	195	205	215	225	235	245	255	265	275	285
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.10	0.10	0.10	0.10	0.10
	155	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	145	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	135	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	125	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	115	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.10	0.20	0.10	0.10	0.10
	105	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	95	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30	0.20	0.20	0.20
	85	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.20
	75	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.30
	65	0.20	0.20	0.30	0.30	0.30	0.30	0.40	0.40	0.40	0.50	0.40	0.40	0.40	0.40	0.30	0.30
	55	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.50	0.50	0.50	0.50	0.50	0.40	0.40	0.30
	45	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.40	0.50	0.50	0.50	0.50	0.50	0.40	0.40	0.30
	35	0.20	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.40	0.50	0.50	0.50	0.50	0.40	0.30	0.30
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-E4

	Distance (ft)	295	305	315	325	335	345	355	365	375	385	395	405	415	425	435	445
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	175	0.10	0.10	0.10	0.10	0.10	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	155	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	145	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20
	135	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	125	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	115	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	105	0.20	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30	0.20
	95	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
	85	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
	75	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
	65	0.30	0.30	0.30	0.30	0.20	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
	55	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
	45	0.30	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.30	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-E4

	Distance (ft)	455	465	475	485	495	505	515	525	535	545	555	565	575	585	595	605
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00
	175	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00
	155	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00
	145	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	135	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	125	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	115	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	105	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	95	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	85	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	75	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	65	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	55	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-E4

	Distance (ft)	615	625	635	645	655	665	675	685	695	705	715
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-N1

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-N1

	Distance (ft)	135	145	155	165	175	185	195	205	215	225	235
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20
	175	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20
	155	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20
	145	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.30
	135	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.30	0.30
	125	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.30	0.30	0.30
	115	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30
	105	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.40
	95	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40
	85	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.40
	75	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.40
	65	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.40	0.50
	55	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.50	0.50
	45	0.10	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.50	0.50
	35	0.10	0.10	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.50	0.50
	25	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.40	0.50
	15	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.40	0.40
	5	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.40
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10

VP-N3

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	185	0.30	0.30	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	175	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.10	0.10	0.10	0.00	0.00	0.00
	165	0.40	0.40	0.40	0.30	0.30	0.20	0.20	0.10	0.10	0.10	0.00	0.00	0.00
	155	0.50	0.50	0.50	0.40	0.40	0.30	0.20	0.20	0.10	0.10	0.00	0.00	0.00
	145	0.60	0.60	0.60	0.50	0.50	0.40	0.30	0.20	0.10	0.10	0.00	0.00	0.00
	135	0.80	0.80	0.70	0.70	0.60	0.50	0.40	0.30	0.20	0.10	0.00	0.00	0.00
	125	1.00	0.90	0.90	0.80	0.70	0.60	0.40	0.30	0.20	0.10	0.10	0.00	0.00
	115	1.10	1.10	1.10	1.00	0.80	0.70	0.50	0.40	0.20	0.10	0.10	0.00	0.00
	105	1.30	1.30	1.30	1.20	1.00	0.80	0.60	0.40	0.30	0.20	0.10	0.00	0.00
	95	1.50	1.50	1.50	1.30	1.10	0.90	0.70	0.50	0.30	0.20	0.10	0.10	0.10
	85	1.70	1.70	1.60	1.50	1.30	1.00	0.80	0.50	0.30	0.20	0.10	0.10	0.20
	75	1.80	1.80	1.70	1.60	1.30	1.10	0.80	0.60	0.40	0.20	0.20	0.20	0.20
	65	1.80	1.80	1.70	1.60	1.30	1.10	0.80	0.60	0.40	0.30	0.20	0.20	0.30
	55	1.70	1.70	1.70	1.50	1.30	1.10	0.80	0.60	0.40	0.30	0.30	0.30	0.30
	45	1.60	1.60	1.60	1.40	1.20	1.00	0.70	0.50	0.40	0.30	0.30	0.30	0.30
	35	1.40	1.50	1.40	1.30	1.10	0.90	0.70	0.50	0.40	0.30	0.30	0.30	0.30
	25	1.30	1.30	1.20	1.10	1.00	0.80	0.60	0.50	0.40	0.30	0.30	0.30	0.30
	15	1.10	1.10	1.10	1.00	0.80	0.70	0.60	0.40	0.30	0.30	0.20	0.20	0.20
	5	1.00	0.90	0.90	0.80	0.70	0.60	0.50	0.40	0.30	0.30	0.20	0.20	0.20
Horizontal Illuminance	0	0.60	0.60	0.50	0.50	0.40	0.30	0.30	0.20	0.10	0.10	0.10	0.10	0.10

VP-N3

	Distance (ft)	135	145	155	165	175	185	195	205	215	225	235	245	255	265	275	285
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.10	0.10	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.00
	105	0.00	0.10	0.10	0.10	0.10	0.20	0.40	0.40	0.30	0.20	0.20	0.10	0.10	0.10	0.10	0.00
	95	0.10	0.10	0.10	0.10	0.20	0.50	0.70	0.60	0.40	0.30	0.20	0.20	0.10	0.10	0.10	0.10
	85	0.20	0.20	0.10	0.10	0.30	0.80	1.00	0.80	0.60	0.40	0.20	0.20	0.10	0.10	0.10	0.10
	75	0.20	0.20	0.20	0.20	0.40	0.80	1.00	0.80	0.60	0.40	0.20	0.20	0.10	0.10	0.10	0.10
	65	0.30	0.20	0.20	0.20	0.30	0.60	0.70	0.60	0.50	0.30	0.20	0.20	0.10	0.10	0.10	0.10
	55	0.30	0.20	0.20	0.20	0.20	0.40	0.40	0.40	0.30	0.30	0.20	0.10	0.10	0.10	0.10	0.10
	45	0.30	0.30	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.20	0.20	0.10	0.10	0.10	0.10	0.10
	35	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10
	25	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	15	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00
	5	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00
Horizontal Illuminance	0	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00

VP-N3

	Distance (ft)	295	305	315	325	335	345	355	365	375	385	395	405	415	425	435	445
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-S1

	Distance (ft)	5	15	25	35	45	55	65	75	85	95
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10
	145	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	135	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	125	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	115	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	105	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	95	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.10
	85	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	75	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.30	0.20	0.20
	65	0.10	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30	0.30
	55	0.10	0.20	0.20	0.30	0.40	0.40	0.40	0.40	0.40	0.30
	45	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.60	0.50	0.40
	35	0.00	0.00	0.10	0.10	0.20	0.60	0.80	0.80	0.70	0.60
	25	0.10	0.00	0.00	0.00	0.00	0.40	1.00	1.00	0.80	0.60
	15	0.10	0.10	0.00	0.00	0.00	0.20	1.10	1.00	0.90	0.70
	5	0.10	0.10	0.00	0.00	0.00	0.20	0.90	0.80	0.90	0.70
Horizontal Illuminance	0	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10

VP-S3

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.10
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	175	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	155	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	145	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	135	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	125	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	115	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	105	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	95	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	85	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	75	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	65	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	55	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	45	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	35	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	25	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	15	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	5	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-S3

	Distance (ft)	135	145	155	165
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00
	175	0.00	0.10	0.00	0.00
	165	0.10	0.10	0.00	0.00
	155	0.10	0.10	0.00	0.00
	145	0.10	0.10	0.00	0.00
	135	0.10	0.10	0.00	0.00
	125	0.10	0.10	0.10	0.10
	115	0.10	0.10	0.10	0.10
	105	0.10	0.10	0.10	0.10
	95	0.10	0.10	0.10	0.10
	85	0.10	0.10	0.10	0.10
	75	0.10	0.10	0.10	0.00
	65	0.10	0.10	0.10	0.00
	55	0.10	0.10	0.10	0.10
	45	0.10	0.10	0.10	0.10
	35	0.10	0.10	0.10	0.10
	25	0.10	0.10	0.10	0.10
	15	0.10	0.10	0.10	0.00
	5	0.10	0.10	0.10	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00

VP-S4

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	185	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	175	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.20	0.20
	165	0.10	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30	0.30	0.30
	155	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
	145	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.40	0.40	0.40	0.40	0.30	0.40
	135	0.20	0.20	0.30	0.30	0.30	0.30	0.40	0.40	0.40	0.40	0.40	0.40	0.40
	125	0.20	0.30	0.30	0.30	0.40	0.40	0.40	0.50	0.50	0.50	0.50	0.50	0.50
	115	0.30	0.30	0.30	0.40	0.40	0.40	0.50	0.50	0.60	0.60	0.60	0.50	0.60
	105	0.30	0.30	0.40	0.40	0.40	0.50	0.50	0.60	0.60	0.60	0.70	0.60	0.60
	95	0.30	0.30	0.40	0.40	0.50	0.50	0.60	0.60	0.70	0.70	0.80	0.70	0.80
	85	0.30	0.40	0.40	0.40	0.50	0.50	0.60	0.70	0.70	0.80	0.80	0.70	0.80
	75	0.30	0.40	0.40	0.40	0.50	0.60	0.60	0.70	0.70	0.80	0.80	0.70	0.80
	65	0.30	0.40	0.40	0.50	0.50	0.60	0.60	0.70	0.70	0.80	0.80	0.70	0.80
	55	0.30	0.40	0.40	0.50	0.50	0.50	0.60	0.70	0.70	0.80	0.80	0.70	0.80
	45	0.40	0.40	0.40	0.40	0.50	0.50	0.60	0.60	0.70	0.80	0.80	0.70	0.80
	35	0.30	0.40	0.40	0.40	0.50	0.50	0.60	0.60	0.70	0.70	0.80	0.70	0.80
	25	0.30	0.30	0.30	0.40	0.50	0.50	0.60	0.60	0.70	0.70	0.70	0.70	0.70
	15	0.00	0.00	0.00	0.00	0.00	0.50	0.50	0.60	0.60	0.70	0.70	0.60	0.70
	5	0.00	0.00	0.00	0.00	0.00	0.40	0.50	0.50	0.50	0.60	0.60	0.50	0.60
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30

VP-S4

	Distance (ft)	135	145	155	165	175	185	195	205	215	225	235	245	255
Vertical Illuminance	Elevation (ft above grade) 195	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	185	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	175	0.20	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.20	0.20	0.20
	165	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.20
	155	0.30	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.30
	145	0.40	0.40	0.40	0.50	0.50	0.50	0.50	0.50	0.40	0.40	0.40	0.40	0.30
	135	0.50	0.50	0.50	0.60	0.60	0.60	0.60	0.60	0.50	0.50	0.50	0.40	0.40
	125	0.50	0.60	0.60	0.70	0.70	0.70	0.70	0.70	0.60	0.60	0.50	0.50	0.50
	115	0.60	0.70	0.70	0.80	0.80	0.80	0.80	0.80	0.70	0.70	0.60	0.60	0.50
	105	0.70	0.80	0.80	0.90	1.00	1.00	1.00	0.90	0.90	0.80	0.70	0.70	0.60
	95	0.90	1.00	1.00	1.10	1.10	1.10	1.10	1.00	1.00	0.90	0.80	0.70	0.70
	85	0.90	1.00	1.10	1.20	1.20	1.20	1.20	1.10	1.10	1.00	0.90	0.80	0.70
	75	1.00	1.10	1.20	1.20	1.30	1.30	1.30	1.20	1.10	1.00	0.90	0.80	0.70
	65	1.00	1.10	1.20	1.20	1.30	1.30	1.20	1.20	1.10	1.00	0.90	0.80	0.80
	55	0.90	1.00	1.10	1.20	1.20	1.30	1.20	1.20	1.10	1.00	0.90	0.90	0.80
	45	0.90	1.00	1.10	1.10	1.20	1.20	1.20	1.10	1.10	1.00	0.90	0.80	0.80
	35	0.90	0.90	1.00	1.10	1.10	1.10	1.10	1.10	1.00	1.00	0.90	0.90	0.80
	25	0.80	0.90	0.90	1.00	1.00	1.00	1.00	1.00	0.90	0.90	0.80	0.80	0.80
	15	0.70	0.70	0.80	0.80	0.70	0.00	0.00	0.00	0.80	0.80	0.80	0.80	0.70
	5	0.60	0.60	0.60	0.60	0.40	0.00	0.00	0.40	0.80	0.80	0.70	0.70	0.70
Horizontal Illuminance	0	0.30	0.30	0.30	0.30	0.20	0.00	0.00	0.10	0.20	0.20	0.20	0.20	0.20

VP-S5

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-S7

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	175	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	155	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	145	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	135	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	125	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	115	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00
	105	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	95	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	75	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	65	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	55	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	45	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	35	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00
	25	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00
	15	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00
	5	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-S7

	Distance (ft)	135	145	155	165	175	185	195
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	165	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	155	0.10	0.10	0.00	0.00	0.00	0.00	0.00
	145	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W1

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.10	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	175	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	155	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	145	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20
	135	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20
	125	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20
	115	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.30	0.30
	105	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30
	95	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.30	0.30	0.40
	85	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.30	0.30	0.40
	75	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.30	0.30	0.30
	65	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.40
	55	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.30	0.30	0.40	0.40
	45	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.50
	35	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.50	0.50
	25	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.50
	15	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.50
	5	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.50
Horizontal Illuminance	0	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20

VP-W1

	Distance (ft)	135	145	155	165	175	185	195	205	215	225	235	245
Vertical Illuminance	195	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.20	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.20	0.20	0.20	0.20	0.20	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.20	0.20	0.20	0.20	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.30	0.30	0.30	0.30	0.20	0.20	0.10	0.00	0.00	0.00	0.00	0.00
	105	0.40	0.40	0.40	0.40	0.30	0.30	0.20	0.00	0.00	0.00	0.00	0.00
	95	0.40	0.50	0.50	0.50	0.50	0.40	0.30	0.10	0.00	0.00	0.00	0.00
	85	0.40	0.50	0.60	0.60	0.60	0.50	0.40	0.30	0.10	0.00	0.00	0.00
	75	0.40	0.50	0.60	0.70	0.70	0.70	0.60	0.40	0.10	0.00	0.00	0.00
	65	0.40	0.50	0.60	0.70	0.80	0.80	0.70	0.50	0.30	0.10	0.00	0.00
	55	0.50	0.60	0.70	0.80	0.90	0.90	0.80	0.60	0.40	0.20	0.10	0.00
	45	0.60	0.70	0.80	0.90	1.00	1.00	1.00	0.80	0.50	0.30	0.10	0.10
	35	0.60	0.70	0.80	0.90	1.00	1.10	1.10	0.90	0.60	0.30	0.20	0.10
	25	0.60	0.70	0.90	1.00	1.10	1.10	1.10	0.90	0.70	0.40	0.40	0.40
	15	0.60	0.70	0.80	1.00	1.10	1.10	1.00	0.90	0.60	0.40	0.40	0.30
	5	0.60	0.70	0.80	0.90	0.90	0.90	0.90	0.70	0.50	0.30	0.30	0.30
Horizontal Illuminance	0	0.30	0.30	0.30	0.40	0.40	0.40	0.30	0.30	0.20	0.10	0.10	0.10

Elevation (ft above grade)

VP-W3

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115	125
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	175	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20
	155	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	145	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30
	135	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30
	125	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30
	115	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40
	105	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.40
	95	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.40	0.40	0.50
	85	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.40	0.50	0.50
	75	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.50	0.50	0.50
	65	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.50	0.50	0.50	0.60
	55	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.50	0.50	0.50	0.60	0.60
	45	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.50	0.50	0.50	0.60	0.60
	35	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.50	0.50	0.50	0.60	0.60
	25	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.50	0.50	0.50	0.60	0.70
	15	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.50	0.50	0.50	0.60	0.60
	5	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.50	0.50	0.60	0.60
Horizontal Illuminance	0	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10

VP-W3

	Distance (ft)	135	145	155	165	175	185	195	205	215	225	235	245	255	265	275	285
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	175	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	165	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	155	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	145	0.30	0.30	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10
	135	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	125	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.30	0.30	0.30	0.30	0.20	0.20	0.20
	115	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.30	0.30	0.30
	105	0.40	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.40	0.40	0.40	0.40	0.30	0.30
	95	0.50	0.50	0.50	0.50	0.50	0.60	0.60	0.50	0.50	0.50	0.50	0.50	0.40	0.40	0.40	0.40
	85	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.50	0.50	0.50	0.50	0.50
	75	0.60	0.60	0.60	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.60	0.60	0.60	0.50	0.50	0.50
	65	0.60	0.70	0.70	0.70	0.70	0.80	0.80	0.80	0.80	0.70	0.70	0.70	0.60	0.60	0.60	0.60
	55	0.70	0.70	0.70	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.70	0.70	0.70	0.70	0.70
	45	0.70	0.70	0.80	0.80	0.80	0.90	0.90	0.90	0.90	0.90	0.80	0.80	0.70	0.70	0.70	0.70
	35	0.70	0.80	0.80	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.80	0.80	0.80	0.80	0.70	0.80
	25	0.70	0.80	0.80	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.80	0.80	0.80	0.80	0.80
	15	0.70	0.80	0.80	0.80	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.80	0.80	0.80	0.80	0.80
	5	0.70	0.70	0.80	0.80	0.80	0.90	0.90	0.90	0.90	0.80	0.80	0.80	0.80	0.70	0.70	0.70
Horizontal Illuminance	0	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20

VP-W3

	Distance (ft)	295	305	315	325	335	345	355	365	375	385	395	405	415	425	435	445
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	175	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.10	0.10	0.10	0.10	0.10
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10
	155	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	145	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20
	135	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.30	0.30	0.30	0.20	0.20	0.20	0.20
	125	0.20	0.20	0.20	0.30	0.30	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.30	0.20	0.20
	115	0.30	0.30	0.30	0.30	0.40	0.40	0.40	0.50	0.50	0.50	0.40	0.30	0.30	0.30	0.30	0.20
	105	0.30	0.40	0.40	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.40	0.40	0.30	0.30	0.30
	95	0.40	0.50	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.50	0.40	0.40	0.30	0.30
	85	0.50	0.60	0.60	0.70	0.70	0.70	0.80	0.80	0.80	0.70	0.70	0.50	0.50	0.40	0.40	0.30
	75	0.60	0.70	0.70	0.80	0.80	0.90	0.90	0.90	0.90	0.80	0.80	0.60	0.50	0.40	0.40	0.40
	65	0.70	0.80	0.80	0.90	0.90	1.00	1.00	1.00	1.00	0.90	0.90	0.60	0.50	0.50	0.40	0.40
	55	0.80	0.80	0.90	1.00	1.10	1.10	1.10	1.10	1.00	1.00	0.90	0.60	0.60	0.50	0.40	0.40
	45	0.80	0.90	1.00	1.10	1.10	1.20	1.20	1.20	1.10	1.00	0.90	0.70	0.60	0.50	0.50	0.40
	35	0.90	1.00	1.10	1.10	1.20	1.20	1.20	1.20	1.10	1.10	1.00	0.70	0.60	0.50	0.50	0.40
	25	0.90	1.00	1.10	1.10	1.20	1.20	1.20	1.20	1.10	1.00	1.00	0.70	0.60	0.50	0.50	0.40
	15	0.90	0.90	1.00	1.10	1.10	1.20	1.20	1.10	1.10	1.00	0.90	0.70	0.60	0.50	0.50	0.40
	5	0.80	0.90	1.00	1.00	1.10	1.10	1.10	1.10	1.00	0.90	0.90	0.60	0.50	0.50	0.40	0.40
Horizontal Illuminance	0	0.30	0.30	0.30	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.30	0.30	0.20	0.20

VP-W3

	Distance (ft)	455	465	475	485	495	505	515	525	535	545	555	565	575	585	595	605
Vertical Illuminance	Elevation (ft above grade) 195	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	185	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00
	175	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00
	155	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00
	145	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	135	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	125	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	115	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	105	0.30	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	95	0.30	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	85	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	75	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	65	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	55	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	45	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	35	0.40	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	25	0.40	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	15	0.40	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	5	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Horizontal Illuminance	0	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00

VP-W3

	Distance (ft)	615	625	635	645	655	665	675	685	695	705	715	725	735	745	755	765
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W3

	Distance (ft)	775	785	795	805	815	825	835	845	855	865
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VP-W5

	Distance (ft)	5	15	25	35	45	55	65	75	85	95	105	115
Vertical Illuminance	Elevation (ft above grade) 195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00
	175	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	165	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	155	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	145	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	135	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	125	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	115	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	105	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00
	95	0.00	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.10	0.10	0.00	0.00
	85	0.00	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.10	0.00	0.00
	75	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.10	0.00	0.00
	65	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.10	0.00	0.00
	55	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00
	45	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00
	35	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00
	25	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.00
	15	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.10	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horizontal Illuminance	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00