Technical Memorandum

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Department of Public Works, City of Los Angeles

From: Jeff Lormand, Registered Landscape Architect, Parsons

Date: October 12, 2021

Re: Sidewalk and Transit Amenities Program
Aesthetics and Visual Impact Analysis

1.0 PURPOSE AND ORGANIZATION OF THIS MEMO

The purpose of this memorandum is to document the results of the analysis of Aesthetics and Visual Impacts as it relates to the potential environmental impacts associated with construction and operation of the proposed Sidewalk and Transit Amenities Program (STAP) and future projects that may be allowed under the proposed changes to the Los Angeles Municipal Code (LAMC) (collectively, the project). In addition, this memo will support the findings of the Initial Study that will be prepared to identify the appropriate environmental document for the project, in compliance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines.

2.0 PROJECT LOCATION AND SETTING

The City of Los Angeles (the City) covers approximately 468.7 square miles and is generally located at the southwestern section of Los Angeles County. Public transit services in the City are provided by the Los Angeles County Metropolitan Transportation Authority (Metro), City of Los Angeles Department of Transportation (LADOT), Southern California Railroad Authority (SCRRA or Metrolink), and bus services from adjacent cities. Current inventory indicated that there are 1,884 existing transit shelters in the City, which are located at scattered bus stop locations that are used by Metro, LADOT DASH and Commuter Express, Culver City, Santa Monica Big Blue Bus, and other regional and municipal bus operators.

Approximately 21 percent (63,888 acres) of all land in the City is developed as streets, storm drainage channels, utility facilities, and reservoirs. The City currently maintains an inventory of 1,884 transit shelters, 197 public amenity kiosks, 6 vending kiosks, and 14 automated public toilets as part of its Coordinated Street Furniture Program (CSFP). Table 1 provides an inventory of these facilities. At the direction of the Los Angeles City Council, the CSFP is entirely funded by revenue from advertising panels at most existing program furniture locations.

Table 1. CSFP Inventory

Structures and Facilities	Number
Transit Shelters with advertising	1,667
Transit Shelters without advertising	123
Rapid Bus Shelters	52
Los Angeles Neighborhood Initiative (LANI) Non-Advertising Shelters	42
Total Transit Shelters	1,884
Public Amenity Kiosks	197
Vending Kiosks	6
Total Advertising Panels (with 13% for public service programs)	3,679
Automatic Public Toilets (APTs; owned/operated by a private firm)[1]	14

Source: StreetsLA, 2021.

3.0 PROJECT DESCRIPTION

3.1 Project Objectives

The STAP would be implemented by the Department of Public Works Bureau of Street Services (StreetsLA) and would provide shelter, shade, safety, and comfort to the City's transit riders, active transportation users, and pedestrians. The program would support public transit and shared use of the sidewalk; improve transit information and public service delivery; be a self-sustaining program through reinvestment of advertising revenues to improve access and mobility; and create a dynamic program that incorporates flexibility and collaboration with other City goals and programs. These goals would be achieved through the efficient delivery of enhanced program elements and active management by the City.

The primary objectives of the STAP include the following:

- Promote and expand the use of transit, active transportation, and shared mobility by improving the quality and technological capability of associated physical program elements, such as transit shelters, kiosks, and other amenities
- Improve the intrinsic design qualities of street furniture and other public right-of-way infrastructure and streetscapes on a city-wide basis
- Provide public benefits to help strengthen neighborhoods while facilitating an economically and physically sustainable project
- Foster a public-private collaborative approach to provide expanded and more equitable public services, regular STAP equipment maintenance, and revenue to the City using commercial advertising opportunities

1. APTs are currently considered an option for inclusion in the proposed STAP but they are not a mandatory component of the incoming program. The City is considering its options to pursue a separate public toilet program. Were the City to create a stand-alone public toilet program, the current APT inventory would be included as part of that program and would not be part of STAP.

3.2 Siting Parameters

The selection of sites for all STAP inventory, including the STAP Shelter Revitalization Program, would be guided by the goal to provide shelter, shade, safety, and comfort to the maximum number of transit riders, the users of active transportation, and pedestrians through a program that is sustained by revenue generated from advertising on the program elements. The physical placement of functional street furniture in locations where advertising space can generate the most revenue is of secondary importance. Through the STAP, the City intends to set a high standard for the use of public space through the use of well-designed, functional furniture and digital displays that transform City streets into welcoming, vital streetscapes.

Placement of the STAP project elements would be guided by the City's overarching goals for the program, recommendations of the City Council, the criteria identified below, as well as requests from members of the public, private landowners, and developers. The decision making for determining site locations, therefore, is part of an iterative process. Generally, STAP project elements would be sited according to street designation, zoning, and adjacent land uses, as provided in Table 2. However, the placement of program elements in areas with historic, scenic, sensitive resource, or other special designations may require special approvals and/or cooperative agreements.

As shown, proposed transit shelters with or without advertising displays would be generally confined to the City’s commercial, industrial, parking, and open space areas; no transit shelters with or without advertising displays would be constructed or replaced under this program along the frontage of properties on Hillside Limited Streets, Hillside Local Streets, designated federal and State Scenic Highways, and the frontages of properties in One-Family Residential zones.

It is the City’s intent to prioritize and designate locations for the installation of transit shelters to ensure their equitable distribution while working towards achieving the City Council's express goal of having a minimum of 75 percent of transit boardings within each of the 15 Council Districts made from a location with a transit shelter.

The transit shelter roll-out process will be guided by a data- and equity-driven priority criteria developed in partnership with the Los Angeles County Metropolitan Transportation Authority (LACMTA) and organizations dedicated to improving access for people with disabilities and seniors, as well as environmental and transit advocacy and community-based organizations. Data utilized in prioritization of roll out locations are as follows:

- High transit ridership
- Exposure to heat (heat data generated by the Trust for Public Land)
- Metro's Equity Focus Communities (based upon minority populations, low-income households, and zero-vehicle households)
- Proximity to trip generators, key destinations, service facilities, and low frequency bus routes that indicate long wait times
- Specific site conditions, especially the ability to receive relocated or new STAP shelters

Table 2. Transit Shelter Zoning Siting Parameters

			General Zoning/Land-Use								
	R/W Width	S/W Width	Agriculture	Residential Estate	One-Family Residential	One-Family Residential (RS Only)	Multi-Family Residential	Commercial	Manufacturing	Parking	Open Space
Corresponding Zones			A1, A2, RA	RE40, RE20, RE15, RE11, RE9	R1, RU, RZ2.5, RZ3, RZ4, RW1	RS	R2, RD1.5, RD2, RD3, RD4, RD5, RD6, RMP, RW2, R3, RAS3, R4, RAS4, R5	CR, C1, C1.5, C2, C4, C5, CM	MR1, M1, MR2, M2, M3	P, PB	OS, PF, SL
Major Arterial (Major Highway)											
Boulevard I	136'	18'									
Boulevard II	110'	15'									
Secondary Highway											
Avenue I	100'	15'									
Avenue II	86'	15'									
Avenue III	72'	13'									
Non-Arterial Streets											
Collector	66'	13'									
Industrial Collector	68'	10'									
Industrial Local	64'	10'									
Local Street - Standard	60'	12'									
Local St. - Limited	50'	10'									
Hillside Streets											
Hillside Collector	50'	5'									
Hillside Local	44'	4'									

Table 2. Transit Shelter Zoning Siting Parameters

	R/W Width	S/W Width	General Zoning/Land-Use: Agriculture	Residential Estate	One-Family Residential	One-Family Residential (RS Only)	Multi-Family Residential	Commercial	Manufacturing	Parking	Open Space
Corresponding Zones			**A1, A2, RA**	**RE40, RE20, RE15, RE11, RE9**	**R1, RU, RZ2.5, RZ3, RZ4, RW1**	**RS**	**R2, RD1.5, RD2, RD3, RD4, RD5, RD6, RMP, RW2, R3, RAS3, R4, RAS4, R5**	**CR, C1, C1.5, C2, C4, C5, CM**	**MR1, M1, MR2, M2, M3**	**P, PB**	**OS, PF, SL**
Hillside Limited	36'	4'									
Other Public Rights-of-Way											
One-Way Service Rd	26'-32'	10'									
Bi-Direction Svc Rd	34'-42'	10'									
Pedestrian Malls	N/A	N/A									
City Scenic Highway											
Federal/State Scenic Highway*											

Legend

Not Allowed	No shelters/advertising displays allowed in front of properties.**
Limited Allowance	No shelters/advertising displays allowed next to one-family dwellings; shelters with/without advertising displays *may be* allowed elsewhere.**
Allowed	Shelters/advertising page 5page displays allowed

Notes:

In all cases, shelters/advertising displays only allowed if site has sufficient space to facilitate installation in compliance with the City's Proposed Guidelines for Accessible Rights-of-Way and PROWAG, including frontage or service road islands, bus islands, and designated bus stop zones within public rights-of-way

* Refers to Officially Designated State Scenic Highways

** Shelters with/without advertising displays ***may be*** allowed on side yards and reverse frontage (back yards) of one-family dwelling units facing streets with different classifications. Example: one-family dwelling unit on a Local St - Standard with reverse frontage on an Avenue II.

R/W – right-of-way; S/W – sidewalk; N/A – not applicable; ‘ – feet

Source: StreetsLA, 2021.

Please note that the possible shelter locations for future upgrades shown in the interactive map on the STAP website are preliminary locations based on the equity data above but would be further refined based on specific site conditions, especially the ability to receive relocated or new STAP shelters, the level of site rehabilitation required, and applicable City regulations (e.g., Specific Plans and overlay districts).

Following the assignment of priority rankings on a citywide basis based on the combination of above factors, the ranked bus stops will be reviewed in relation to City Council District boundaries with the goal of deploying new or upgraded shelters at the highest ranked locations within each Council District. Once the 75 percent Council District goal is reached, additional shelter sites will be selected based on the established criteria indicating the highest rank prioritized locations citywide and specific requests for transit shelters by City offices, Neighborhood Councils, or constituents. Other program elements can be placed to serve advertiser demand when space and inventory allow through a collaborative site selection process. The City Council may reject proposed locations for placement of STAP program elements and suggest alternate locations. The ultimate determination of STAP element locations, however, resides with the Los Angeles Board of Public Works.

3.3 Project Implementation Features

Site construction and deployment of the transit shelters under STAP are anticipated to occur over a 3- to upwards of a six-year time span, from 2022-2024 or 2027 depending upon the negotiated terms of the final contract. Maintenance and operation of all transit shelters, existing and new, would be the responsibility of the contractor for 10 years with 2 potential 5-year extensions, in accordance with the agreements with the City. In summary, the program implementation would include the following activities:

- Dismantling and removing existing transit shelters and amenities
- Refresh a number existing shelters and constructing new transit shelters
- Maintaining the revitalized and new transit shelters
- Installation of urban panels[2] and placemaking kiosks at or within the vicinity of the transit shelters

Installation of other optional program elements at or within the vicinity of the transit shelters

STAP's program elements would comply with all applicable Structural, Seismic, Plumbing, and Electrical Codes, and other specific City-adopted policies and standards applicable to the public right of way. This includes compliance with Department of Public Works Standard Specifications, Standard Specifications for Public Works Construction, City amendments to the Standard Specifications for Public Works Construction (Brown Book), and various Standard Plans.

[2] Urban panels are digital displays that are positioned on the street level to be viewed by pedestrians and vehicular traffic.

Approximately 1,116 new transit shelters would be constructed at designated locations, at existing bus stops without transit shelters, and the existing 1,884 transit shelters would be replaced. Additionally, approximately 664 of the existing transit shelters would be removed, refurbished and relocated to bus stops that do not currently have shelters during the initial program year(s), with most expected to be eventually replaced with new shelters. However, approximately 20 percent of these 664 relocated shelters (or 133 shelters) may remain at the new locations throughout the STAP rollout process and would not be replaced with new shelters. This would possibly increase new shelters to be constructed at approximately 1,249 locations for a total new transit shelter construction at approximately 3,133 sites. In addition, 450 shade structures may also be placed at bus stops where it is not practical to install a transit shelter. A total of approximately 3,583 transit shelters and shade structures would be installed under STAP.

The dimension of each new structure would be approximately 5 feet wide, 14–20 feet long, and 9 feet tall, with placemaking kiosks up to 16 feet tall. It would be equipped with seating, illumination for security and safety, and provide a separate stand-alone litter/recyclable receptacle.

Construction and installation of each new transit shelter would include any combination of the following activities:

- Installation of refurbished and renewed transit shelter or a new transit shelter at a bus stop that previously had a shelter or amenities
- Installation of refurbished and renewed transit shelter or a new transit shelter at a location that did not previously have a shelter or amenities
- The following program elements may be provided in the area adjacent to the shelter canopy:
  - Litter/recycling receptacles, digital displays, interactive information kiosks, vending kiosks, urban panels, placemaking kiosks, and eLockers
- Any of the following elements may also be incorporated within, or in the vicinity of transit shelters:
  - Shade structures; docks and/or corrals for scooters or bicycles; bollards; pillars; traffic barriers; electric vehicle charging stations[3]; hydration stations; handwashing stations or hand sanitizer dispensers; cooling stations; public Wi-Fi and Broadband 5G; charging ports or stations; public art and features that reflect local and/or architectural history
- Sidewalk reconstruction related to the installation of new or replacement transit shelters[4], including fixing broken concrete, cracks, and making required

[3] Electric vehicle charging stations would be incompatible with bus stop zones where no-parking is allowed; but ***may*** be a program feature provided away from/outside of bus stop zones.

[4] The STAP will not be making comprehensive sidewalk repairs throughout a bus stop zone. ADA related sidewalk reconstruction in particular, will be limited to the area immediately beneath the transit shelter, transition areas needed to access the ADA-compliant area beneath a transit shelter, and an ADA-compliant Pedestrian Access Route (PAR) from the waiting area beneath a transit shelter to the ADA-compliant 5-foot by 8-foot boarding/alighting area adjacent to the bus stop sign post. Sidewalk panels disturbed by transit shelter installations will likely be repaired replaced but

accessibility improvements, such as cross-slope work for Americans with Disabilities Act (ADA) compliance
- Minor utility work, such as underground or overhead utility connections may be required

Each of the new and updated shelters would be equipped with a canopy, a bench, and a litter receptacle with the size of the canopy varied. The City intends to incorporate various amenities as part of STAP to take advantage of expanding innovations in transit and smart technology, including customized automated digitized advertising panels, some of which may be interactive with the capability of providing wayfinding, real-time bus arrival and other public information. Media panels, approximately 4.5 feet by 2 feet wide and 8 feet tall, would each have two display panels containing a combination of digital graphics and/or static printed commercial advertising; wayfinding, bus arrival, or other public services message content that may either be incorporated into the transit shelter or installed as separate, stand-alone structures. Newsstand vending kiosks, public amenity and placemaking kiosks, and urban panels may be included as part of the project. Installation of transit shelters and associated amenities may require sidewalk reconstruction. Examples of proposed transit shelters are shown in Figure 1.

Intermittent lane closure or curb restrictions would be required over the approximately 2.5 days required to install shelters. No streets would be completely closed to vehicular traffic during the transit stop/shelter installation process, but traffic flag persons and/or devices may need to be in place during the installation period to protect vehicles, bicycles, and pedestrians if adequate width for deployment of the equipment is not otherwise available. All construction vehicles, except for backhoes, skid steers and portable toilets, would be removed daily from the construction site location. Bus stops would need to be temporarily relocated or suspended. No permanent parking impacts are anticipated.

Where possible, STAP elements are intended to enhance or take advantage of tree canopies that provide natural shade and shelter. No trees are proposed to be removed with implementation of the STAP program elements under most instances. However, there may be situations where tree root pruning that is required to make sidewalk repairs necessary to achieve ADA compliance may destabilize an existing street tree beyond a reasonable level of liability and thus, may likely require the removal of such tree to minimize public safety risks and to bring liability levels down to an acceptable level. When the installation of a transit shelter brings with it the possibility that a street tree may have to be removed, the contractor would have to comply with existing City regulations, including the need for a street tree removal permit from the Board of Public Works; public notification of the proposed removal of three or more street trees; a Board of Public Works public hearing for consideration of removal of three or more street trees at a specific address; and provision of replacement trees on a 2:1 basis with 24-inch box size tree stock to be watered for a minimum 3-year period.

the scope of additional sidewalk repairs beyond that will be reviewed and determined on a case by case basis depending upon the ability of the City to cover the costs of such work.

Figure 1: Examples of proposed transit shelters (larger above, smaller below)
(Photos taken during Demonstration of Technologies organized by StreetsLA in July 2021)

As part of the City's Green New Deal, StreetsLA began to add cooling features, trees and more shade at bus stops in October 2019. A coordinated effort between the STAP program and other City efforts to achieve the Green New Deal goals would be undertaken.

Implementation of STAP would comply with the pertinent City's ordinances related to lighting. All transit shelters would come equipped with evening hour security lighting to illuminate passenger waiting areas beneath canopies. Shelter roofs may be equipped with solar panels or green roofs in limited quantities depending on need and/or appropriateness. Other optional shelter features may include free Wi-Fi, charging ports or stations, and possibly cooling systems.

Motion on digital screens would not be allowed and limitations would be placed on their brightness, with the flip time on STAP digital screens being no more frequent than every 10 seconds, allowing for a maximum of 6 ads/messages over a 60-second cycle, and illumination levels that do not exceed 4.0 lux over the ambient light levels. Digital elements would have ENERGY STAR ratings for efficiency with LED screens. These devices must automatically control their brightness in response to the time of day and sunlight. All digital elements of STAP would also be controlled through a Content Management System, which would automatically adjust the brightness of specific devices by location to accommodate community standards.

Maintenance of all of the program transit shelters and other amenities would be performed by the contractor on an on-going basis over the 10-year period. The activities would include any combination of the following:

- Cleaning of shelters, associated program elements, and sidewalk area on a regularly scheduled (generally twice per week) and emergency basis, including use of power-washing equipment
- Removal or abatement of graffiti and/or stickers
- Abatement of etching to the highest degree possible
- Litter and recyclable collection and disposal
- Shelter repair work, including fixing broken ad panels, inoperable lights, shelter structures, benches, litter receptacles, and other program elements
- Minor utility repair, such as replacing light elements, fuses, and utility box repairs
- Periodic re-painting or re-coating of transit shelters and their related components

Maintenance of all STAP elements would be performed in accordance with performance based contract maintenance standards that takes into account historical data, including public comments and complaints received by the City's 311 Center, STAP web forms, crowd-sourced information, and data collected by StreetsLA's Asset Management Program.

3.4 Changes to the Los Angeles Municipal Code

In addition to the transit shelter improvements under STAP, the City is proposing changes to Los Angeles Municipal Code (LAMC) Sections 67.01 and 67.02, which would modify the type of advertising structures allowed in the right-of-way, in order to effectuate portions of the STAP program and potentially authorize the consideration of other projects in the future.

While CEQA does not require the lead agency to speculate on the potential impact of a project, it does generally require a lead agency to evaluate the potential impacts of future development under a new regulatory regime if there is substantial evidence in the record that such future development is reasonably foreseeable. Based on the available knowledge and reasonable investigation, the City conservatively estimates that the potential projects listed below may occur in the future; however, any such approval in the future, if approved at all, will be subject to all applicable laws, including future CEQA analysis and all other City code and permitting requirements.

- Los Angeles Tourism and Convention Board (LATCB) Information Kiosks
- LADOT Mobility Hubs
- Metro Bikeshare
- LADOT Blue LA Electric Vehicle Charging Stations
- Bureau of Street Lighting Advertising on Street Lighting Assets

Based on these potentially foreseeable projects, it is estimated that future advertising displays would be installed at approximately 500 sidewalk locations between 2022 and 2024, or as many as 167 sites per year (concurrent with the STAP rollout period). For impact analysis purposes, these foreseeable advertising displays are being considered in the impact analysis of the proposed project using the same construction assumption as is being used for the transit shelter installation.

4.0 EXISTING CONDITIONS

The visual character of the City is defined by public views of natural features, such as topography/terrain, ocean, open space, trees and vegetation, and, particularly within urbanized areas, the built environment, including streets, buildings, and major infrastructure forms a substantial visual presence.

While the City of Los Angeles has a relatively flat terrain, the Santa Monica Mountains (along the western boundaries of the City), San Gabriel Mountains (around the northern boundaries of the City), Santa Susana Mountains (north of the Santa Monica Mountains), and Baldwin Hills (located southwest of downtown Los Angeles) define the City's geography and serve as visual backdrops to urban development. Large open spaces are found in the Santa Monica and San Gabriel Mountain Ranges, along the beaches, rivers and parks throughout the City, including Griffith Park, Cabrillo Beach and Venice Beach, and scattered lakes and open water facilities. Urban development includes low-rise and high-rise buildings, older neighborhoods, newer

developments, and infill developments, historical structures, architecturally significant structures, and major infrastructure.

As noted above, 21 percent of surface area of Los Angeles is covered by streets. Included in this quantity are the sidewalks and associated streetscapes found adjacent to the roadway paving. It is within these areas that the existing transit shelters and bus stops are located. The transit shelters on public roads are currently present at approximately 1,884 locations and include a combination of benches, shelters with or without advertising panels, trash receptacles and, at limited locations, bus stop safety lighting and real-time bus arrival information. Figure 2 shows the current typical bus shelter/transit stop elements.

The specific visual and aesthetic conditions for each transit shelter/bus stop can be very different and depend on many factors for a single assessment of visual character, including the presence of streetlights or bus stop lighting. Whether the street is a local, collector, or arterial road would affect the visual ratio of roadway to pedestrian area. Adjacent land uses – such as residential, commercial, manufacturing, office – also have a huge determination on the visual character of the roadway environment that bus facilities are located in. So, no single definition or description can serve to address each and every existing condition that any one shelter is found in. For this analysis, the existing condition of the sites is based on a urban to suburban setting with the areas adjacent to the roadways fully developed.

Figure 2: Examples of existing transit shelters/bus stops within the City of Los Angeles

5.0 RELEVANT REGULATIONS AND ANALYSIS METHODOLOGIES

This section describes existing laws and regulations related to visual impact and aesthetics that are applicable to the project. This includes federal, state, and local laws and regulations.

The National Environmental Policy Act (NEPA) of 1969, and Council on Environmental Quality (CEQ) regulations to implement NEPA, both discuss visual impacts under the heading of aesthetics. These regulations identify aesthetics as one of the elements or factors in the human environment that must be considered in determining the effects of a project. Further, Title 23, USC 109(h) cites “aesthetic values” as a matter that must be fully considered in developing a project. In addition to the Federal guidelines and requirements, the State of California, through the CEQA, establishes that it is the policy of the State to take actions to provide the people of the state “with…enjoyment of aesthetic, natural, scenic, and historic environmental qualities. To address CEQA requirements, Caltrans has developed the Standard Environmental Reference (SER), which provides information on the approach the Department uses to identify visual and aesthetic issues that may result from transportation projects.

5.1 Federal

National Scenic Byways Program

The National Scenic Byways Program is part of the U.S. Department of Transportation, Federal Highway Administration. The program was established to recognize, preserve and enhance selected roads throughout the United States. It designates roads with one or more archeological, cultural, historic, natural, recreational and scenic qualities as All-American Roads or National Scenic Byways. The Arroyo Seco Historic Parkway (SR 110) from the SR 101/SR 110 interchange in downtown Los Angeles to Colorado Boulevard in Old Town Pasadena is a Designated Scenic Byway under this program.

Visual Impact Assessment for Highway Projects

Federal visual assessment methodologies are established by the Federal Highway Administration's (FHWA) publication entitled Visual Impact Assessment for Highway Projects (FHWA, 1981). The publication was updated in 2015, however this version has not been adopted by Caltrans for CEQA analysis, so the 1981 methodology still applies within State highways. This methodology divides the views into landscape or character units that have distinct, but not necessarily homogenous, visual character. Typical views, called key viewpoints, are selected for each unit to represent the views to/from the project. The view of the motorist is also considered as a separate character unit. Existing visual quality from the viewpoints is judged by three criteria: vividness, intactness, and unity.

This methodology is outlined in Caltrans SER, Volume 1, Chapter 27 and is used on state facilities to capture changes to the visual environment.

5.2 State

Caltrans SER Chapter 27

Volume 1, Chapter 27 of the SER provides an overview of the approach the California Department of Transportation (Caltrans) uses to identify visual and aesthetic issues that may result from transportation projects. Information is provided to give the reader a basic understanding of the Visual Impact Assessment (VIA) and Scenic Resource Evaluation (SRE). These studies are used to predict the degree and type of impact proposed transportation projects would have on the "visual" environment. As part of the analysis, Caltrans has developed a decision tree and questionnaire that help determine the level of effort and analysis needed to properly analyze the proposed project. Both the Decision Tree and a completed questionnaire for the STAP project can be found in Attachment C.

California Department of Transportation Scenic Highways Program

California's Scenic Highway Program was created by the Legislature in 1963. Its purpose is to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. The California Streets and Highways Code, Division 1, Sections 260–263 implement the Scenic Highway Program. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view.

Caltrans defines a State Scenic Highway as any freeway, highway, road, or other public right-of-way that traverses an area of exceptional scenic quality. Eligibility for designation as a State Scenic Highway is based on vividness, intactness, and unity of the roadway. The status of a proposed State Scenic Highway changes from eligible to officially designated when the local governing body applies to Caltrans for scenic highway approval, adopts a Corridor Protection Program, and receives notification that the highway has been officially designated a State Scenic Highway.

Within the City of Los Angeles boundaries, scenic roadways are shown in Figure 3 and include:

Officially Designated State Scenic Highway:

- State Route (SR) 27 (Topanga Canyon Boulevard) between Pacific Coast Highway and Mulholland Drive.

Designated Historic Parkway:

- Arroyo Seco (SR 110).

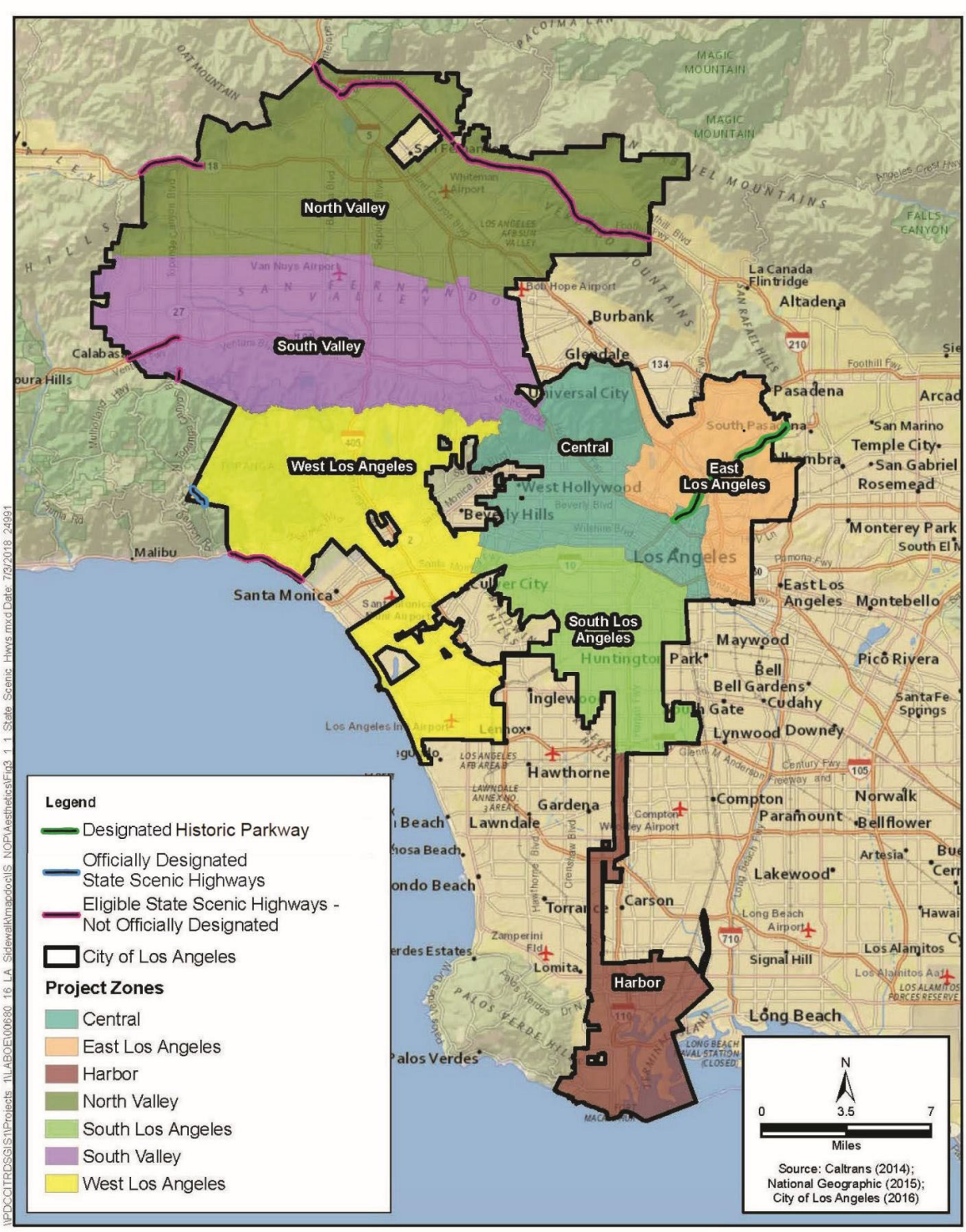


Figure 3: Caltrans Eligible State Scenic Highways

Highways eligible for designation as a State Scenic Highway under the Caltrans State Scenic Highways Program:

- SR 118 (Simi Valley Freeway) west of DeSoto Avenue to the western City Limits,
- I-5 north of SR 210 to northern City limits, SR 210 in Sylmar/Sunland-Tujunga to eastern City limits,
- US Highway 1: Pacific Coast Highway north of I-10 within City limits, and
- US 101: west of Topanga Canyon Boulevard to the western City limits.

California Coastal Act

The *California Coastal Act of 1976* (Coastal Act) was adopted after state voters approved Proposition 20 in 1972. A key factor that led to the passage of this landmark legislation was the visible deterioration of the coastal environment as well as development pressures from a growing population (California Coastal Act 2014). Section 30251 of the Coastal Act is pertinent to visual resources preservation, stating that:

> [S]cenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

5.3 Local

City of Los Angeles General Plan

The City General Plan is a comprehensive, long-range declaration of purposes, policies, and programs for the development of the City. The City's General Plan includes the Framework Element, Plan for a Healthy Los Angeles – Health and Wellness Element, Housing Element, Mobility Element (i.e., Mobility Plan 2035), Noise Element, Air Quality Element, Conservation Element, Open Space Element, Safety Element, and Service Systems Element/Public Recreation Plan. These elements provide long-range Citywide policy and direction and consider Citywide goals and needs.

The Conservation Element, adopted in 2001, includes a discussion of the existing landforms and scenic vistas in the City. Objectives, policies, and programs included in this element are intended to ensure the protection of the natural terrain and landforms, unique site features, scenic highways, and panoramic public views as City staff and decision-makers consider future land use development and infrastructure projects. The Mobility Plan 2035, adopted in 2016, provides general guidance on mobility issues and goals for the City, but can only provide guidance, and not the same

force as an adopted ordinance or approved specific plan. The Mobility Plan 2035 does provide an inventory of City-designated scenic highways and includes special controls to be considered for protection and enhancement of scenic resources, as well as guidelines for designated scenic highways for which there is no adopted scenic corridor plan.

City of Los Angeles General Plan Framework Element

The City's Framework Element, adopted in December 1996 and amended in August 2001, establishes the broad overall policy and direction for the entire General Plan. The Framework Element provides that scenic resources are intended to improve community and neighborhood livability in the City. The Framework Element's open space and conservation policies seek to conserve significant resources and use open space to enhance community and neighborhood character in the City. Applicable goals, objectives, and policies of the General Plan are shown in Table 3.

City of Los Angeles General Plan Mobility Plan

The City of Los Angeles General Plan Mobility Plan 2035, adopted in 2016, provides goals, objectives, policies, and action programs on mobility issues for the City. The Mobility Plan 2035 includes an inventory of City-designated scenic highways in Appendix B and provides interim guidelines for signs and outdoor advertising for designated scenic highways for which there is no adopted Scenic Corridor Plan (and/or any applicable specific plan or other Planning requirement) (see Attachment B). Scenic Highway Guidelines found in Appendix B of the Mobility Plan indicate that Corridor Plans should be developed for all identified corridors. This plan should address (in general):

- Roadway Design (must include consideration of safety and capacity as well as preservation and enhancement of scenic resources)
- Earthwork and Grading
- Planting and Tree Preservation
- Signs/Outdoor Advertising
- Utilities

Specific to signs and outdoor advertising, the Mobility Plan indicates , in interim guidance for areas without an adopted corridor or other applicable plan, that only traffic, informational, and identification signs would be permitted within the public right-of-way and generally prohibits off-site outdoor within 500-feet of the center line of a scenic highway. However, transit shelters (relocated or new) and associated amenities and signs and advertising displays to be located within the Mobility Plan scenic highway planning areas where there are no adopted Corridor Plans (or other applicable plans, such as Specific Plans) shall be designed to comply with applicable guidelines and standards and sign regulations for street furniture and signs installed in the public road right-of-way prior to installation/construction, including any necessary Planning approvals.

Table 3. Visual Quality Goals, Objectives, and Policies of the City of Los Angeles General Plan

Goal/Objective/ Policy	Description
GENERAL PLAN FRAMEWORK- CHAPTER 5 – 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 5.5	Enhance the livability 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, streetlights 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: Sidewalks: 15-17 feet wide (see illustrative street cross-sections). Mid-block medians (between intersections): landscaped where feasible. Shade trees pruned above business signs, to provide a continuous canopy along the sidewalk and/or palm trees to provide visibility from a distance. Pedestrian amenities (e.g., benches, pedestrian-scale lighting, special paving, window boxes, and planters).
MOBILITY PLAN 2035	
Objective 11	Preserve and enhance access to scenic resources and regional open space.
Policy 11.2	Provide for protection and enhancement of views of scenic resources along or visible from designated scenic highways through implementation of guidelines set forth in this 2035 Mobility Plan.

Source: City of Los Angeles, General Plan Framework Element and Mobility Plan 2035.

Regarding the STAP program and the interface with Scenic Routes, the program does not prohibit shelters from being located along scenic highways, but the City would review any proposed installation on an as-needed, case-by-case basis. However, the installation of any new advertising displays (static or digital) would not be placed on any identified Federal or State scenic highways. Compliance with the Mobility Plan and applicable Corridor Plans (Streetscape Plans) is discussed in the Land Use Consistency Analysis.

STAP would comply with any adopted approved corridor plan with language that prohibits or limits the installation of advertising-based transit furniture (benches or shelters) within/upon any public right-of-way or street as designated in streetscape plans and corridor plans. For example, the Park Mile Specific Plan contains prohibitions against advertising-based transit shelters but does allow non-advertising transit shelters. Some existing transit shelters within the Park Mile Specific Plan were installed prior to the corridor plan adoption and are grandfathered in place. The

Mulholland Scenic Parkway Specific Plan is another area/corridor where no program furniture would be placed due to its overall rural character and predominantly single dwelling unit land use designations of properties immediately adjoining Mulholland Highway on both sides of the roadway along its entire length.

The Land Use Consistency Analysis prepared for the project discusses compliance with adopted plans and policies in detail, as well as applicable elements of the Mobility Plan.

City of Los Angeles Municipal Code

Section 14.4.5 of the Los Angeles Municipal Code (LAMC) addresses hazards to traffic (that may be caused by billboards or other signage erected on private property) and states that a sign is not permitted if it constitutes a hazard to the safe and efficient operation of vehicles. It requires the LADOT to prepare a hazard determination for such signs or those visible from or within 500 feet of the travelway to show that the sign will not be a hazard, before a sign permit is issued. The evaluation checklist that is used to determine hazards to traffic does not apply to billboards and digital displays permitted in Supplemental Use Districts, Specific Plans, and other sign districts in the City. Also, these regulations govern the development of private properties and buildings and do not apply to signage and other improvements constructed within the public right-of-way. A discussion of traffic hazards is included in the Transportation/Traffic Impact Assessment prepared for the project.

LAMC Chapter VI provides regulations for public works and property, including streets and sidewalks. Section 62.200 identifies obstructions to driver visibility at street intersections and applies to signs and other improvements constructed within the public right-of-way. The Land Use Consistency Analysis also discusses project compliance with the LAMC. As indicated above, the project includes proposed changes to the LAMC that would allow STAP program elements and future advertising displays associated with foreseeable City projects.

6.0 IMPACT ANALYSIS

In visual impact assessments that are prepared for Caltrans, the initial step is to complete a visual assessment questionnaire that was developed by the agency to determine the level of assessment necessary. While STAP and foreseeable City projects are not Caltrans projects and so would not require this step, a questionnaire was completed for this project and can be found in Attachment C to this Memorandum. The results indicate that the proposed visual changes due to new and upgraded transit shelters and site furnishings and future advertising displays would not constitute a substantial change to the environment along the roadways and would require a brief memorandum outlining the proposed visual changes.

It is important to note in any visual analysis that visual character terms are descriptive and non-evaluative, meaning that they are based on defined attributes that are neither good nor bad in themselves. Changes in visual character cannot be described as having good or bad attributes until they are compared with viewer responses to the

change. In addition, the analysis of advertising and the use of digital signage, is not in itself a visual issue based on both CEQA and on NEPA requirements, except for the potential for light and glare associated with the signage. Regarding the issue of driver safety and distractibility, existing research primarily relates to billboards. These research findings are mixed, and the information available does not raise significant safety concerns related to smaller digital signage comparable to what is proposed for STAP and future advertising displays. This information is further outlined in Attachment A of this memo.

6.1 ANALYSIS OF CHARACTER AND VIEWERS

The NEPA of 1969 and CEQ regulations to implement NEPA, discuss visual impacts under the heading of aesthetics. These regulations identify aesthetics as one of the elements or factors in the human environment that must be considered in determining the effects of a project. Furthermore, Title 23 United States Code (USC), Section 109(h) cites “aesthetic values” as a matter that must be fully considered in developing a project. In addition to the federal guidelines and requirements, the State of California, through the CEQA, establishes that it is the policy of the State to take actions to provide the people of the state “with…enjoyment of aesthetic, natural, scenic, and historic environmental qualities”.

The City has not established a methodology for assessing the visual impacts of a project. So for the proposed transit shelters, shade structures, sidewalk amenities and future advertising displays that may be placed on public rights-of-way as part of this project, the visual impact assessment generally follows the guidance outlined in the publication Visual Impact Assessment for Highway Projects, as published by the Federal Highway Administration (FHWA) in March 1981. In addition to the methodology being used extensively for the visual impact assessment for roadways, it is also the method used by Caltrans in all of its environmental reporting. Note that the 2015 update to this publication has not been adopted by Caltrans, so for this assessment the 1981 methodology was used.

Visual resource rating numbers shown in this analysis are based on this methodology and the spreadsheets included in the 1981 report. These numbers have been slightly modified over the years to a rating of 1 to 5, low to high, vs. 1 to 7, very low to very high, while maintaining the same approach and application. This was due in part to the extremes rarely, if ever, being relevant to the analysis.

The following steps, based on the Caltrans SER and utilizing the 1981 methodology, were followed to assess the potential visual impacts of the proposed project:

- Define the project location and setting.
- Identify visual assessment units and key views.
- Analyze existing visual resources and viewer response.
- Depict the visual appearance of project alternatives.
- Assess the visual impacts of project alternatives.
- Propose measures to offset visual impacts.

Typically, this analysis methodology looks at the visual character of a site, the anticipated changes to the existing character, quality, and the anticipated viewer response to those changes. Visual quality or aesthetics includes aspects such as size, shape, color, texture and general composition, as well as the relationship between the proposed changes and existing elements to remain. Because the project would be located throughout the entire City, the following analysis was prepared for a typical application of one of the proposed transit shelter locations.

Resource change is assessed by evaluating the visual character and the visual quality of the visual resources that comprise the project corridor before and after construction of the proposed project. Resource change is one of the two major variables in the equation that determine visual impacts (the other is viewer response, discussed below in Section 6.1.1).

- Visual character includes attributes such as form, line, color, texture, and is used to describe, not evaluate; in that these attributes are neither considered good nor bad. However, a change in visual character can be evaluated when it is compared with the viewer response to that change. Changes in visual character can be identified by how visually compatible a proposed project would be with the existing condition by using visual character attributes as an indicator.

- Visual quality is evaluated by considering the vividness, intactness, and unity present in the project corridor. These three criteria are defined below:
    - Vividness is the extent to which the landscape is memorable and is associated with distinctive, contrasting, and diverse visual elements.
    - Intactness is the integrity of visual features in the landscape and the extent to which the existing landscape is free from non-typical visual intrusions.
    - Unity is the extent to which all visual elements combine to form a coherent, harmonious visual pattern.

Public attitudes validate the assessed level of quality and predict how changes to the project corridor can affect these attitudes. This process helps identify specific methods for addressing each visual impact that may occur as a result of the project.

Generally, for the project as a whole, the existing visual character for the STAP program sites and future advertising display locations is typically an urban to suburban streetscape with the typical elements of the roadway, curb line, sidewalk, and streetlighting. At the location of an existing bus stop, typical elements include site furnishings – benches and trash receptacles, and signage indicating the transit/bus stop. In many instances, a shelter may be present to protect patrons from the elements. The physical setting is typically a flat terrain through a large portion of the City, although sloped and hilly conditions existing in specific locations within the City. The overall visual character of most sites is that of a developed urban site bordered by roadways and backed by buildings.

Given that the project covers the entire City of Los Angeles with thousands of potential spot locations for bus stops and transit shelters and future advertising displays, it was not practical to develop individual assessment units or key views. Instead, the analysis looked at typical location as a key view for the siting of a transit shelter to show the anticipated visual changes.

6.1.1 Viewers and Viewer Response

The population affected by the project is composed of viewers. 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. Viewers, or more specifically the response viewers have to changes in their visual environment, are one of two variables that determine the extent of visual impacts that will be caused by the construction and operation of the proposed project. The other variable is the change to visual resources itself.

Viewer exposure is a measure of the viewer's ability to see a particular object. Viewer exposure has three attributes: location, quantity, and duration. Location relates to the position of the viewer in relationship to the object being viewed. The closer the viewer is to the object, the more exposure. Quantity refers to how many people see the object. The more people who can see an object or the greater frequency an object is seen, the more exposure the object has to viewers. Duration refers to how long a viewer is able to keep an object in view. The longer an object can be kept in view, the more exposure. High viewer exposure helps predict that viewers will have a response to a visual change.

Viewer sensitivity is a measure of the viewer's recognition of a particular object. It has three attributes: activity, awareness, and local values. Activity relates to the preoccupation of viewers—are they preoccupied, thinking of something else, or are they truly engaged in observing their surroundings. The more they are actually observing their surroundings, the more sensitivity viewers will have of changes to visual resources. Awareness relates to the focus of view—the focus is wide and the view general or the focus is narrow and the view specific. The more specific the awareness, the more sensitive a viewer is to change. Local values and attitudes also affect viewer sensitivity. If the viewer group values aesthetics in general or if a specific visual resource has been protected by local, state, or national designation, it is likely that viewers will be more sensitive to visible changes. High viewer sensitivity helps predict that viewers will have a high concern for any visual change.

The main viewer groups for the project are identified below and consist of persons with views of the public rights-of-way in the City where transit shelters, shade structures, sidewalk amenities and future advertising displays would be located. The exposure and sensitivity of each viewer group are discussed below:

- **Community Residents:** Residents can be expected to have a high concern and an overall moderate to moderately high response to changes in the visual environment with regard to the project and its effect on views from their homes and neighborhoods. These viewers are most familiar with their community and

the existing aesthetic of the local roadways. While most residential areas do not face out directly into one of the project's proposed shelters, residents would have frequent views as they come to and from their homes. These viewers could be expected to have:
  - Location: views to project elements would be prominent (moderately high)
  - Duration: views would be of relatively short (moderately low) duration typically
  - Quantity: the number of viewers would be very high, given the local traffic volumes on the project's roadways

- **Business Owners, Employees, and Customers:** In general, this user group would be expected to have a moderate response to the changes in the visual environment. While they are familiar with the corridor, they are often more concerned with maintaining access to the businesses than with changes in the visual environment; however, business owners are often concerned with the aesthetics of the project corridor and how that might reflect on the community, as are community residents. In summary, for viewers associated with businesses:
  - Location: views to project elements could be prominent (high) to these viewers
  - Duration: views would be moderately low
  - Quantity: the number of viewers would be moderately low, in general

- **Automobile Traffic:** Most of the streets expected to have new or improved transit shelters and future advertising displays would be collector and arterial type streets where traffic volumes are generally higher than local streets. Travelers on these roads include regular commuters, frequent travelers, occasional travelers, and tourists/visitors, who traverse along the roads in a typical day. Of these users, the daily commuter would have the greatest sensitivity to any changes in the visual environment due in large part to their daily exposure to the corridors. With congested traffic, the length of exposure increases; drivers have a longer time to focus their attention on the roadway elements, and passengers tend to have more time and a wider range of views than do drivers. Overall, this group could be expected to have a moderate viewer response to changes in the visual environment.
  - Location: views to project elements would be prominent (high) to roadway travelers
  - Duration: views would be of short (low) to moderate duration
  - Quantity: the number of viewers would be high, given the existing traffic volumes

- **Transit Users, Pedestrians, and Bicyclists:** These local street users generally have a slower pace and therefore more time to observe the visual environment. Since many could be expected to be either local residents from the neighborhood areas, or employees or customers traveling to or from a business, they would tend to be familiar with the community, its desires, and

needs. Overall, this group would be expected to have a moderately high response to changes in the visual environment.
- Location: views to project elements would be prominent (high)
- Duration: views would be of moderate to high duration
- Quantity: the number of viewers would be moderate, due to smaller traffic volumes compared to automobiles

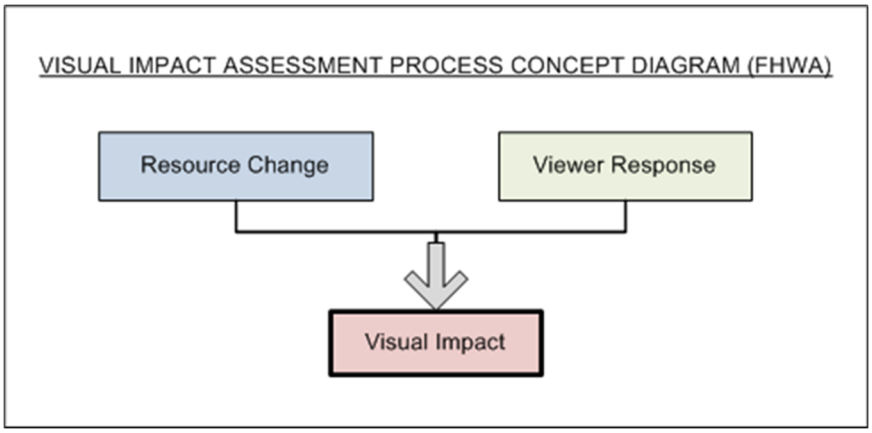
Using the methodology in FHWA's 1981 Visual Impact Assessment for Highway Projects that considers the exposure (considering their location, view duration, and number of viewers) and sensitivity (considering their activity, awareness and local values) of each viewer group in relation to the visual changes that would occur with the proposed project, a summary of viewer group responses is provided in Table 4.

Table 4. Viewer Group Response Summary

Viewer Group	Exposure			Sensitivity			Total
	Location	Duration	Quantity	Activity	Aware	Values	
Community Residents	Mod	Mod Low	Mod High	Mod	High	High	**Mod High**
Business Owners, Employees, and Customers	High	Mod Low	Mod Low	Mod	Mod	High	**Mod**
Local Street Users – Automobiles	High	Low	High	Mod	Mod	Mod	**Mod**
Local Street Users – Transit Users, Pedestrians, and Bicyclists	High	Mod High	Mod	Mod	Mod	High	**Mod High**
Note: Responses follow the guidance in FHWA's 1981 Visual Impact Assessment for Highway Projects.							

7.0 VISUAL RESOURCE CHANGE SUMMARY

Visual impacts are determined by assessing changes to the visual resources and predicting viewer response to those changes. These impacts can be beneficial or detrimental. Cumulative impacts and temporary impacts due to construction activities are also considered. A generalized visual impact assessment process is illustrated in the following diagram:



To better show the potential visual changes associated with the project, a visual simulation has been developed for a typical sidewalk location within the City that illustrates a typical installation for a STAP transit shelter (see Figure 4 in Section 7.1; pictures of the proposed transit shelters are also provided in Figure 5 in Section 7.2). In addition to the simulation, there is descriptive text of the orientation, existing visual character/quality, proposed project features, anticipated changes to the visual environment, anticipated viewer response, and the resulting visual impact anticipated in each view. This is followed by the rendered simulation.

While it is acknowledged that the reaction of each person and each viewer group to visual changes would be highly subjective and likely different, Table 5 (in Section 7.1) was developed to summarize the anticipated visual impacts of the project using the methodology developed by FHWA in its 1981 Visual Impact Assessment for Highway Projects. It quantifies the anticipated impacts by using a numerical analysis that corresponds to the low, moderately low, moderate, moderately high, and high ratings identified below. It then summarizes the overall anticipated visual impact to the view.

For the impact analysis table, the numeric analysis rating of 1 to 5 corresponds with the following values[5]:

- High = 4.60 to 5.00
- Moderately High = 3.60 to 4.50
- Moderate = 2.60 to 3.50
- Moderately Low = 1.60 to 2.50
- Low = 0 to 1.50

A numeric number was assigned to each of the three visual quality traits (vividness, intactness, and unity) and each of the four visual character traits (scale, diversity, continuity, and dominance) for both the existing and proposed views. The ratings in

[5] Numerical values used are based on the FHWA 1981 Visual Impact Assessment for Highway Projects and reflect an accepted approach to the analysis of visual impacts by Caltrans and other reviewing agencies. Note that the 1981 methodology employs a number range of 1 to 7 for their analysis. This analysis uses a scale of 1 to 5, rather than the 1 to 7 shown in the 1981 methodology.

each category were added up and divided by the number of traits in each category. There is no greater weighting of any category over any other. For example:

- (Vividness + Intactness + Unity)/3 = Visual Quality Rating
- (Scale + Diversity + Continuity + Dominance)/4 = Visual Character Rating

From these calculations, the percentage of change anticipated in the view was then calculated by finding the difference between existing and proposed view and then dividing that number by the initial rating figure. For example:

- (Existing Visual Quality Rating – Proposed Visual Quality Rating)/Existing Visual Quality Rating = Percent Change.

For the viewer responses shown in the individual Analysis Summary Table, the existing and proposed responses would be the same. This is because the viewers themselves do not change and only the stimulus changes. The anticipated changes to character and quality, along with the anticipated viewer response and sensitivity follow the Low – Moderate – High rating designations from above. These are averaged between each category, with the higher rating prevailing to determine the resource change and overall anticipated visual impact within the viewpoint.

7.1 Typical Anticipated View

This view was selected as a key viewpoint because it demonstrates what the new transit shelters would look like in a typical commercial zone. Figure 4 shows an existing view (top image) along with a photo simulation (bottom image) of the anticipated changes to the visual environment.

Orientation: The photograph is taken from a point along the sidewalk of southbound Western Boulevard at Martin Luther King Boulevard, looking north to the proposed location for transit stop. The perspective is from the view of a pedestrian.

Existing Visual Character/Quality: The existing visual character of this site is typical to urban/commercial streetscapes in Los Angeles with a wide sidewalk and the building fronting immediately on the sidewalk. The roadway is defined by the existing curb line. Other street elements include the light poles and power lines, and a trash receptacle. Overall, the visual quality of the existing view is estimated to be moderately-low, with low vividness and unity, and moderate intactness.

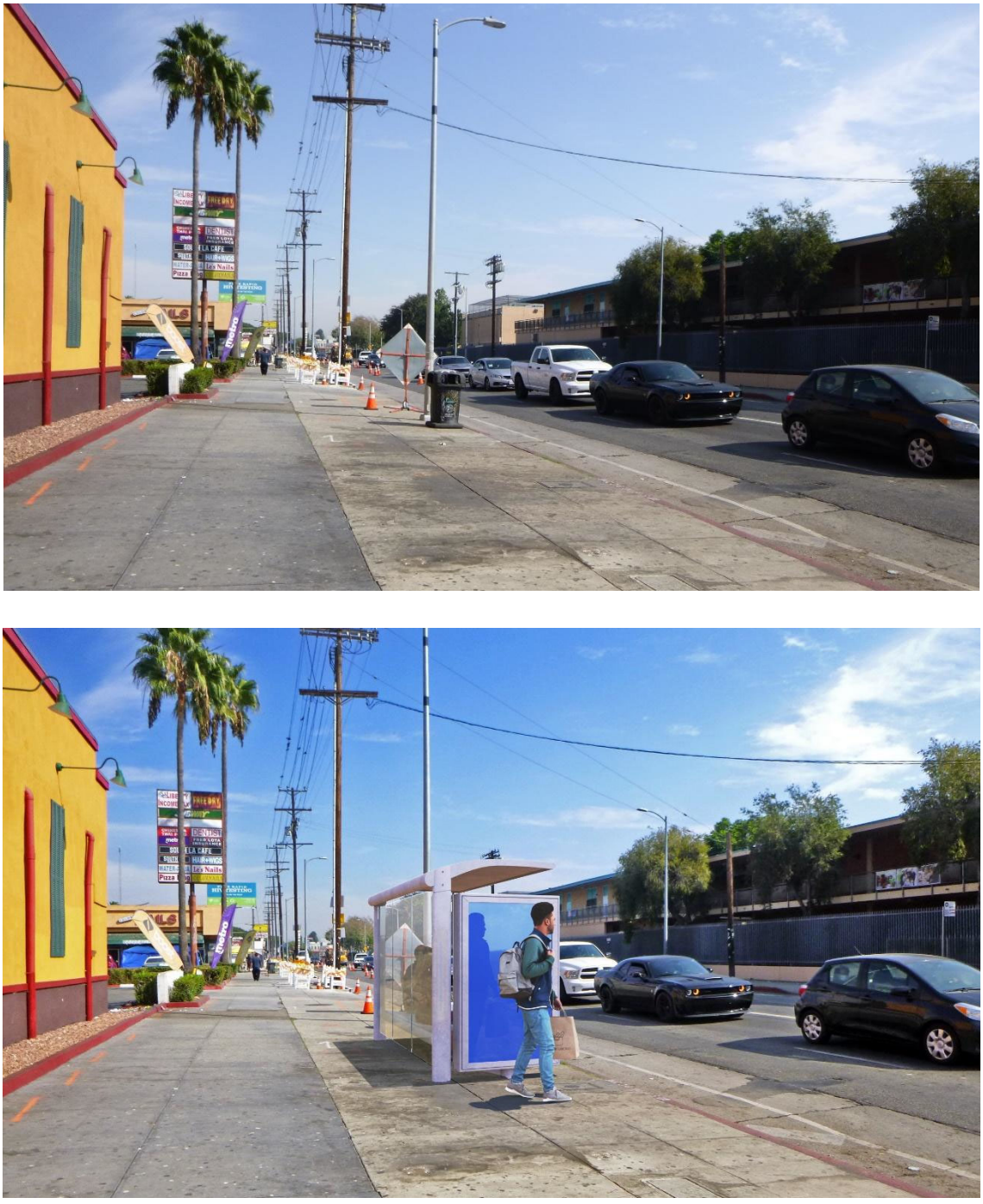
Proposed Project Features: The proposed project features in this view include placement of a transit shelter with advertising in the form of digital displays.

Changes to Visual Character: The biggest change to the view will be the addition of the new bus shelter and associated elements.

Anticipated Viewer Response: It is anticipated that viewers would have a moderate to moderately high sensitivity to any changes in the visual environment along the project corridor. Local residents, pedestrians, and bicyclists would have a higher

degree of sensitivity than drivers and travelers on the roadway. Within this view, the groups most affected would be pedestrians, transit riders, and sidewalk users, with automobile traffic less affected due to the shortness of their views.

Resulting Visual Impact: The resulting changes to the views within the streetscape are not expected to be substantial due to the nature of the changes. The addition of the bus stop and its associated elements and future advertising displays would be new objects along the road and would be placed in a prominent position. However, views of the bus stop and sidewalk areas would be brief and at regular traffic speeds. For pedestrians and transit users, the views would be longer in nature than that of drivers and travelers along the roadway, but these too are transient as they use or pass by the shelter or sidewalk location with an advertising display. The impacts to the visual quality are anticipated to be minor with perhaps a minor decrease in the vividness, intactness, and unity due to the new streetscape elements.



Note: Post construction simulation shows potential new bus shelter. However, this particular stop may or may not have this shelter once the project is finalized.

Figure 4: Existing Conditions (top) and Post Construction Simulation (bottom)

Table 5. Typical View Analysis
Anticipated Changes in Visual Character & Quality, and Their Effect on Viewers

	Attribute	Ratings[7]		Remarks (Anticipated changes are shown in the blue rows)
		Existing Condition	Proposed Condition[5]	
Visual Quality[1]	Vividness/Memorability	2.30	2.38	
	Intactness	2.83	2.91	
	Unity	2.17	2.25	
	TOTAL AVERAGE[6]	**2.43**	**2.51**	Percent Change = 3%
Visual Character[2]	Scale	2.30	2.39	
	Diversity	2.17	2.40	
	Continuity	2.72	2.93	
	Dominance	2.97	3.10	
	TOTAL AVERAGE[6]	**2.54**	**2.71**	Percent Change = 7%
Viewer Exposure[3]	Location of Views	4.24		
	Number of Viewers	2.28		
	Duration of Views	3.80		
	TOTAL AVERAGE[6]	**3.44**		Moderate Exposure
Viewer Sensitivity[4]	Attention of Viewer	3.80		
	Viewer Awareness	4.00		
	Local Values and Goals	4.05		
	TOTAL AVERAGE[6]	**3.95**		Moderately High Sensitivity

1 – Vividness = memorable, striking (5) to plain (1); Intactness = free of encroaching elements (5) to cluttered/lacking integrity (1); and Unity = coherent/harmonious (5) to disjointed/jarring (1). A rating below 1 would only be used for an extremely low rating.

2 – Scale = small (5) to monumental (1); Diversity = complex (5) to monolithic (1); Continuity = harmonious (5) to dissonant (1); and Dominance = balanced (5) to prominent/unbalanced (1). A rating below 1 would only be used for an extremely low rating.

3 – Location = foreground (5) to distant views (1); Number = over 100,000 (5) to 20 or less (1); Duration = over 4 hours (5) to less than 1 minute (1). A rating below 1 would only be used for an extremely low rating.

4 – Activity = attention on views (5) to attention focused away (1); Awareness = High (5) to Low (1); and Values = High (5) to Low expectations (1). A rating below 1 would only be used for an extremely low rating.

5 – Proposed (post-construction condition) with avoidance and minimization measures in place. Avoidance and minimization measures are described in Section 11 of this report.

6 – Total = sum of attributes divided by number of attributes – e.g. Overall Visual Quality = (vividness+intactness+unity)/3.

7 – Ratings: 1 = Low, 3 = Moderate, 5 = High

Note: Ratings made by California Registered Landscape Architect based on guidance in FHWA's 1981 Visual Impact Assessment for Highway Projects.

7.2 ANALYSIS OF CEQA GUIDELINES

Using the Initial Study Checklist questions in Appendix A.1 of the CEQA Guidelines and the City's Thresholds, project impacts are analyzed for significance as follows:

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

Reference: L.A. CEQA Thresholds Guide (2006) (Sections A.1 and A.2); City of Los Angeles General Plan; Caltrans SER, Chapter 27: Visual and Aesthetics Review.

Comment: A scenic vista provides focal views of objects, settings, or features of visual interest; or panoramic views of large geographic areas of scenic quality, primarily from a given vantage point. A significant impact may occur if the project either introduces incompatible visual elements within a public field of view containing a scenic vista or substantially alters a view of a scenic vista.

Less than significant impact. Currently, there is one designated scenic route within the City - SR 27 (Topanga Canyon Boulevard) between Pacific Coast Highway and Mulholland Drive, and one designated Historic Route - Arroyo Seco (SR 110; "Pasadena Freeway"). Additionally, there are four routes (listed in Section 5.2) that are identified as potentially eligible for listing as a scenic route. These scenic routes offer scenic views and vistas of the surrounding areas.

The current designated routes do not have transit shelters, or bus stops, as part of their streetscape elements. As detailed in the project description, adding transit shelters and advertising displays to these roadways is not proposed (and in the case of the Arroyo Seco, this being a limited access expressway, not feasible). Much the same is true for the potentially eligible routes. In some cases, these are limited access roadways which would mean that there is no pedestrian traffic and therefore, no transit shelters or advertising displays on these routes.

As indicated in Table 2, Transit Shelter Zoning Siting Parameters, the new shelter locations would not be allowed in the frontage of properties along Federal and State Scenic Highways and would only have a limited allowance within existing commercial, manufacturing, and parking areas. Given the limitations for shelter locations and future advertising displays and the limited areas associated with any existing or proposed scenic route, any impact would be less than significant. No mitigation is required.

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

Reference: California Scenic Highway System List; L.A. CEQA Thresholds Guide (2006) (Sections A.1 and A.2); City of Los Angeles General Plan; Caltrans SER, Chapter 27: Visual and Aesthetics Review.

Comment: A significant impact may occur where scenic resources within a State Scenic Highway would be damaged by or removed for the proposed project. For

purposes of this analysis, scenic resources include trees, rock outcrops, and historic buildings.

Less than significant impact. As discussed above, locations for replacement and/or new shelters and future advertising displays within existing or potential scenic routes is limited. Furthermore, shelters would be located within an existing sidewalk. Therefore, while transit shelters and future advertising displays could change views from scenic routes, no visual impacts to existing trees, rock outcroppings or historic buildings along these routes is anticipated. Impacts on scenic highways would be less than significant and no mitigation is required.

c) *Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Reference: L.A. CEQA Thresholds Guide (2006) (Section A.1); City of Los Angeles General Plan; Caltrans SER, Chapter 27: Visual and Aesthetics Review.

Comment: A significant impact may occur if the proposed project introduces incompatible visual elements to the project site or visual elements that would be incompatible with the character of the area surrounding the project site or conflict with applicable zoning and other regulations governing scenic quality.

Less than significant impact. Transit shelters and advertising displays are typical streetscape elements found along most major streets – including Boulevards, Avenues and Collector Streets (including Hillside Collectors) within the City of Los Angeles. The proposed project would replace the shelters with new shelters or potentially add new shelters and advertising displays in limited locations where demand warrants or where existing stops are to be upgraded. On Local Streets, on the frontage of family dwelling units in most residential and agricultural zones, as well as within Hillside areas, the proposed transit shelters would not be allowed along the frontage of properties, as noted in Table 2, Transit Shelter Zoning Siting Parameters.

In some locations within the City, including within commercial, manufacturing, and parking areas, the shelters and future advertising displays, including those with or without digital displays, would be allowed. Within areas of residential use, both one and multi-family, there would be limited allowance for new/replacement shelters, with or without advertisements or digital displays at the frontage of properties in the R1, RU, RZ2.5, RZ3, RZ4 and RW1 (i.e., One-Family Residential) zones. Within the One-Family Residential Suburban (RS), limited placement could occur under the proposed designations. But within these locations, no advertising displays would be allowed on the frontage of one-family dwellings, although shelters with or without displays could be allowed elsewhere within the zoned area, including side yards and reverse frontage sidewalk areas. Areas with an Agricultural zoning would be treated the same as the RS zoning, with limited application of the new shelters and future advertising displays in front of properties along Local Streets and Hillside Streets.

The new shelter placement would be targeted to areas with the greatest need for replacement (Source: StreetsLA Presentation, April 2021), including:

- Areas of high transit ridership
- Areas with high exposure to heat/lack of shade
- Areas of equity focus: minority populations, low-income households and zero-vehicle households
- Areas with proximity to key destinations, service facilities, trip generators
- Areas of low frequency bus routes (areas with long wait times)
- Areas with site conditions and space to accommodate a shelter

It is anticipated that the proposed new shelters and future advertising displays are similar in size and scale to existing ones, so in this aspect the new shelters and future advertising displays would be similar enough in appearance and use to not affect the overall streetscape of the City's roadways. In some locations, additional re replacement elements may be included with the shelter, such as digital display panels and interactive kiosks. The digital display panels may replace the current static display panels already existing in most shelters. Stand-alone interactive kiosks may be placed in addition to the shelter and, if provided, may create a bigger footprint to the overall stop but would be limited to areas of high transit usage associated with commercial, retail, and manufacturing locations.

Because some of the proposed shelters are replacing existing shelters and the use of advertising would occur in areas where advertising already exists on the transit shelter or in the vicinity of the shelter, the visual impact associated with the proposed replacement shelters and future advertising displays is anticipated to be less than significant. Where no shelter or advertising display currently exists, but new shelters and future advertising displays are proposed, the impact would still be anticipated to be less than significant since these are standard streetscape elements throughout the city of Los Angeles, and they may replace existing bus stop elements like signage and benches that currently exist in these locations.

As discussed in Sections 6.1 and 7.1 above, including Table 5, viewer groups would have moderate exposure and moderately highly sensitivity to changes in the visual environment. However, views of the bus stops and sidewalk areas would be brief and at regular traffic speeds. The degree of change to visual quality and visual character would be low (approximately 3 to 7 percent). Thus, impacts to the visual quality are anticipated to be minor, with perhaps a minor decrease in the vividness, intactness, and unity due to the new streetscape elements.

Furthermore, please see the Land Use Consistency Technical Memorandum regarding the project's consistency with applicable plans, including any potential conflict with applicable zoning and other regulations governing scenic quality.

Based on the above, impacts related to changes in visual quality would be less than significant and no mitigation is required.

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

Reference: L.A. CEQA Thresholds Guide (2006) (Sections A.1 and A.4); City of Los Angeles General Plan; Caltrans SER, Chapter 27: Visual and Aesthetics Review.

Comment: A significant impact would occur if the proposed project caused a substantial increase in ambient illumination levels beyond the property line or caused new lighting to spill over onto light-sensitive land uses such as residential, some commercial and institutional uses that require minimum illumination for proper function, and natural areas.

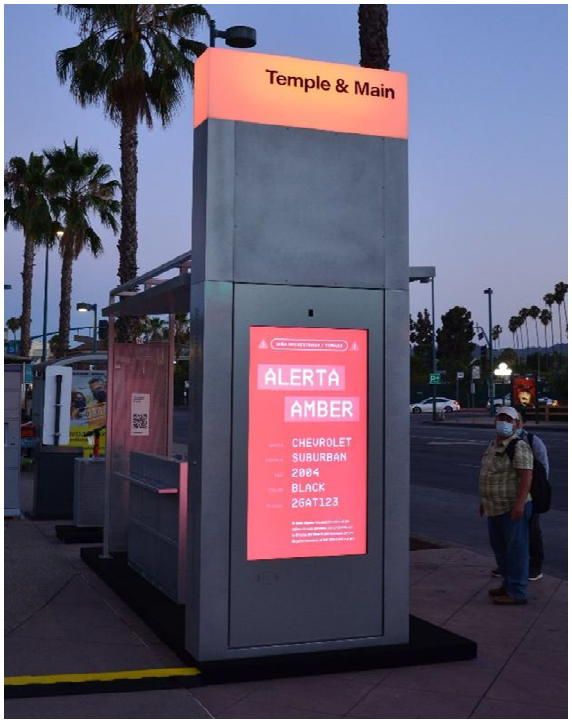
Light impacts are typically associated with the use of artificial light typically during the evening and nighttime hours. Glare can be either a daytime or nighttime occurrence caused by the reflection of sunlight or artificial light from reflective surfaces, such as window glass. Daytime glare is common in urban areas and is typically associated with mid- to high-rise buildings with exterior façades that are largely or entirely comprised of highly-reflective glass or mirror-like materials. Nighttime glare is primarily associated with bright point-source lighting that contrasts with existing low ambient light conditions.

Less than significant impact: The project would introduce or add new sources of lighting at an estimated 3,583 transit shelter and shade structure locations and 500 advertising display locations through shelter lighting, urban panels, and digital displays. Industry standards for illumination levels for digital displays are not to exceed 4.0 lux (or 0.37 footcandle [fc]) over the ambient light levels. STAP has indicated that illumination levels would not exceed this maximum. Therefore, the anticipated light levels associated with the digital displays could be fractionally higher than the current at the bus stops. The Design Standards and Guidelines, Bureau of Street Lighting, Department of Public Works, City of Los Angeles, (2007), indicates the illumination levels for a typical bus stop within the City is 26.9 lux (2.5 foot candles) on average. Based upon this Bureau of Street Lighting standard, the illumination levels for the display may be no more than 4.0 lux (or 0.37 foot candle) typically.

The examples of nighttime views of the digital displays at the proposed transit shelters are shown in Figure 5. The photographs were taken during the STAP Demonstration of Technologies that occurred in July 2021.

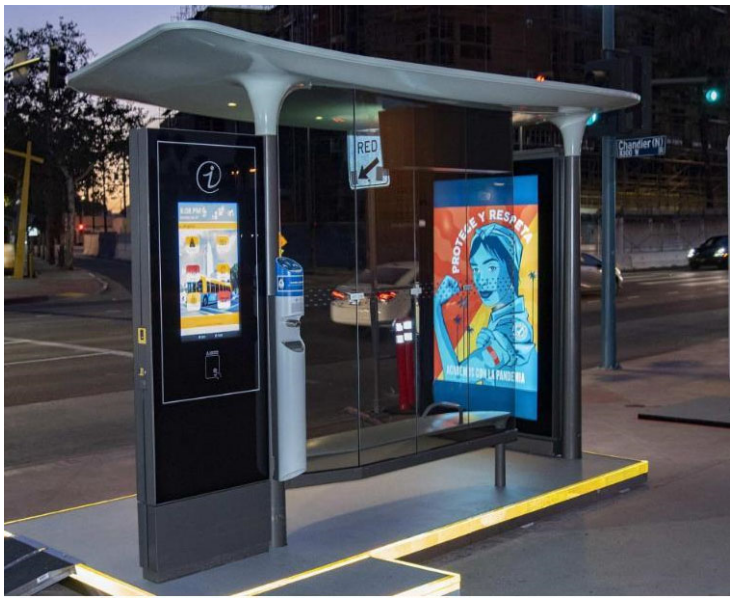
To study the potential effects of light levels that could be anticipated with the new shelter scenario, StreetsLA staff conducted the light readings at the West Valley Municipal Building site at 19040 Vanowen Street (southeast corner of Vanowen Street and Vanalden Avenue) in the Reseda community on July 23 and 24, 2021. A minimum of 4 different light readings for 4 different visual displays were taken for each digital media display and a minimum of 2 light readings were taken for static displays. The readings were taken with almost full moon and with the presence of mature street trees and LED roadway streetlights. The summary of the findings can be seen in Table 6.

Existing Transit Shelter



Proposed Transit Shelter

Proposed Transit Shelter



Proposed Transit Shelter

Figure 5. Nighttime Photographs of Existing and Proposed Transit Shelters
(Photos taken during Demonstration of Technologies organized by StreetsLA in July 2021)

Table 6. Existing and Projected Light Readings

	Distance from Panel/Display			
Readings taken between 8:55 PM - 9:10 PM on July 23, 2021				
Existing BLVD Shelter - Wide Angle Static Panel	**5 feet**	**10 feet**	**20 feet**	**20 feet w/Streetlight**
Nearside-Ground Level (Static - 24 square feet (SF) backlit w/CFL)	7.65 fc	2.9 fc	0.53 fc	1.6 fc
Far side-Ground Level (static - 24 SF backlit w/CFL)	N/A	N/A		
Proposed OFMJCD - Paris Shelter				
Nearside-ground level (digital - 75-inch screen)	7.99 fc	3.35 fc		
Far side-ground level (static - 24 SF back-lit w/LED))	3.55 fc	1.30 fc	0.5 fc	1.21 fc
Proposed Tranzito - ICON Shelter				
Nearside-ground level (digital - 65-inch screen)	3.30 fc	2.6 fc		
Far side-ground level (digital - 65-inch screen)	N/A	N/A		
Readings taken between 8:55 PM - 9:10 PM July 24, 2021				
Existing BLVD Shelter - Wide Angle Static Panel	**5 feet**	**10 feet**	**20 feet**	**20 feet w/Streetlight**
Nearside-ground level (Static - 24 SF backlit w/CFL)	7.65 fc	2.9 fc	0.53 fc	1.6 fc
Nearside - eye Level (Static -24 SF backlit w/CFL)	10.38 fc	4.38 fc	1.20 fc	N/A
Far side (static - 24 SF backlit w/CFL)	N/A	N/A	N/A	
Proposed OFMJCD - Paris Shelter				
Nearside-ground level (digital - 75-inch screen)	7.87 fc	3.59 fc	0.34 fc	
Nearside-eye level (digital 75-inch screen)	10.57 fc	5.13 fc	0.92 fc	
Far side-Ground Level (static - 24 SF back-lit w/LED)*	3.14 fc	1.14 fc	0.36 fc	N/A
Fars ide-Eye Level (static - 24 SF back-lit w/LED)*	10.38 fc	4.38 fc	1.20 fc	
Proposed Tranzito - ICON Shelter				
Nearside-ground level (digital - 65-inch screen)	3.38 fc	2.44 fc	0.53 fc	
Nearside-eye level (digital 65-inch screen)	8.85 fc	5.41 fc	0.91 fc	
Far side-ground level (digital - 65-inch screen)*	1.29 fc	0.60 fc	0.21 fc	
Far side-eye level (65-inch digital screen)*	7.43 fc	2.28 fc	0.98 fc	

Notes: N/A - No readings taken due to proximity to digital screen

*- readings taken with light blocked from adjacent digital screen; fc = foot-candle; w/CFL = with compact fluorescent lamp; w/streetlight = with streetlight; w/LED = with LED

Source: StreetsLA 2021.

Light meter readings taken during the STAP Demonstration of Technologies were then compared with the illumination levels of an existing Boulevard transit shelter with compact fluorescent lamp (CFL) back-lit media panels and a built-in CFL overhead security light from our current shelter inventory, with the prototypical transit shelter provided for the STAP Demonstration of Technologies that is equipped with LED (light-emitting diode) digital media displays and built-in LED overhead security lighting. The readings were also compared with the light output and levels of glare that could potentially be experienced by motorists from the existing CFL back-lit media panels and the newer proposed LED digital screens/media panels.

The proposed Outfront JC Decaux (OFMJCD) transit shelter had a 75-inch digital LED display on the approach/nearside of its shelter, with 4 small, recessed LED downlights in its roof canopy, and a smaller LED digital display (approximately 12 inches high x 36 inches wide) mounted near the underside of the shelter's canopy. Further, the display panel on the departure/far side of the proposed OFMJCD transit shelter contained a static display panel back-lit with LED lighting. The proposed Tranzito shelter had a 65-inch digital LED display on the approach/nearside of its shelter with a recessed LED strip light approximately 6 feet long that provided the security lighting beneath the shelter canopy. The Tranzito shelter also had a second 65-inch digital LED display on its departure/far side.

Table 6 shows the average of the light readings during the nighttime hours, in fc levels, as taken for each location (at each level) with different graphics for digital displays. Ground level readings were taken with the light meter placed horizontally directly on the ground; nearside ground level readings captured light from overhead canopy lights; and eye level readings were taken with light meter held in a vertical position at about 5 feet above the ground.

In almost all cases, the general illumination of the proposed shelters with LED digital media display panels and LED security lights were generally equivalent to or less than the existing shelter with static CFL backlit displays. Of the three shelters measured, the proposed Tranzito's shelter had illumination levels that were generally less than those of the existing CFL back-lit shelters and proposed OFMJCD prototype shelter presumably because of the smaller 65-inch LED digital media displays and the lack of a secondary, LED digital display beneath the roof canopy, as the OFMJCD prototype Paris shelter had. The recorded light meter readings indicate that the newer shelters do not produce significantly higher levels of illumination when compared to an existing CFL illuminated transit shelter. As mentioned above, light levels of the transit shelters equipped with digital media displays were equivalent to or less than light levels of the existing CFL equipped transit shelters.

Since most bus stops and sidewalks are located along roadways with streetlights, the resulting change in lighting levels would be a small increase over existing conditions and is not expected to create light spillover or glare impacts. Furthermore, since streetlighting is currently existing, the digital displays would not represent a substantially new source over the ambient lighting by the streetlights and are not expected to create or increase the potential for driver distraction (as noted above, a

further discussion of traffic hazards is included in the Transportation/Traffic Impact Assessment prepared for the project). . Impacts related to new sources of light and glare would be less than significant, and no mitigation is required.

(See Attachment A for an analysis of current data on digital signage and a review of regulations of other jurisdictions is provided in Attachment D.)

8.0 RECOMMENDED MEASURES

Significant adverse impacts of the project to the existing visual environment are not anticipated, so mitigation measures to reduce project impacts are not required.

9.0 REFERENCES

California Department of Transportation. 2021. Standard Environmental Reference, Environmental Handbook, Volume I: Chapter 27-Visual & Aesthetics Review. https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/volume-1-guidance-for-compliance/ch-27-visual-aesthetics-review.

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Wachtel, J. 2009. “Safety Impacts of the Emerging Digital Display Technology for Outdoor Advertising Signs: Final Report”. NCHRP Report 20-7/256.

Wachtel, J. 2018 “Compendium of Recent Research Studies on Distraction from Commercial Electronic Variable Message Signs (CVMS)”.

10.0 PREPARERS

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Attachment A
Analysis of Data on Digital Signage

The analysis of advertising and the use of digital signage is not in itself a visual issue based on both CEQA and on NEPA requirements, except for the potential of light and glare associated with the signage. This analysis further explored the issue of potential driver safety and distractibility.

Any effects, whether similar or not to billboards for smaller scale digital signs, such as those proposed as part of the STAP, are not well documented. However, this analysis considered the effects of digital billboards on driver attention, if only to gain an understanding of the mitigating measures proposed or taken as a result of the findings of these studies.

Design Parameters for Proposed Digital Signage

With regards to the STAP project, before a comparison with the literature can be analyzed, there needs to be an understanding of the parameters and limitations identified for the project implementation in relation to the inclusion of digital signage at the bus stops/shelters. As identified in the Project Description, the use and implementation of Digital Signage within the project would include the following design parameters:

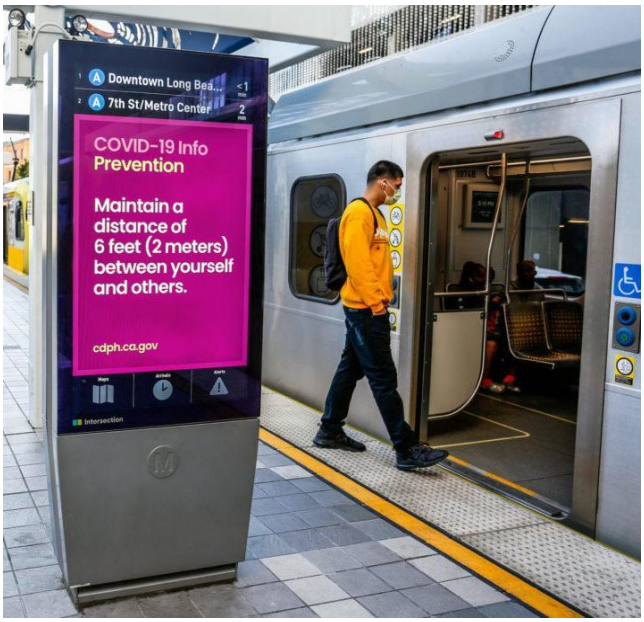
- Digital Element Sizes: While sizes may vary somewhat between shelter manufacturers, the differences between them are generally between 2 to 4 inches in any direction. The sizes indicated below are typical:
  - General sizes for the shelters are: two screens with a height of 67 to 70 inches and a width between 46 and 48 inches, with one screen facing into the shelter, the other on the back side facing out.
  - Digital Kiosks (pylon-like structures with displays) are up to 12 to 16 feet (192 inches) high and 48 inches wide.
  - Interactive Kiosks have two 50- to 55-inch-tall screens with variable widths, depending on the design of these elements.
  - Digital Urban Panels can be either be roughly 67 inches high by 38 inches wide or 56 inches high by 38 inches wide

- Digital Display Illumination: Industry standards for illumination levels for digital displays are not to exceed 4.0 lux over the ambient light levels. As a comparison, the illumination levels for a typical bus stop for the City of Los Angeles are 2.5-foot candles (Design Standards and Guidelines, Bureau of Street Lighting, Department of Public Works, City of Los Angeles, 2007). So, the illumination levels for the display could be 2.87 foot candles. A foot-candle (or foot-candle, fc, lm/ft2, or ft-c) is a measurement of light intensity. One foot-candle is defined as enough light to saturate a one-foot square with one lumen[6] of light.

[6] Lumen is a measurement of light that refers to the brightness produced by a bulb; i.e., a 60-watt incandescent light bulb and a 15-watt fluorescent/LED bulb emit 900 lumens.

- Digital Image “Flip Rate”: The flip rate is the rate at which the digital signage display changes or "flips" to a new image. For the STAP, the proposed digital flip rate is no more frequent than every 10 seconds. As a comparison, the flip rate on most digital billboards is around 6 to 8 seconds.

Typical designs and the bus stop/transit shelter layout can be seen in Figures 6 and 7.



Source: StreetsLA 2021.

Interactive Kiosk

Source: StreetsLA 2021.

Urban Panel

Source: StreetsLA 2021.

Transit Shelter

Figure 6: Digital Display Samples

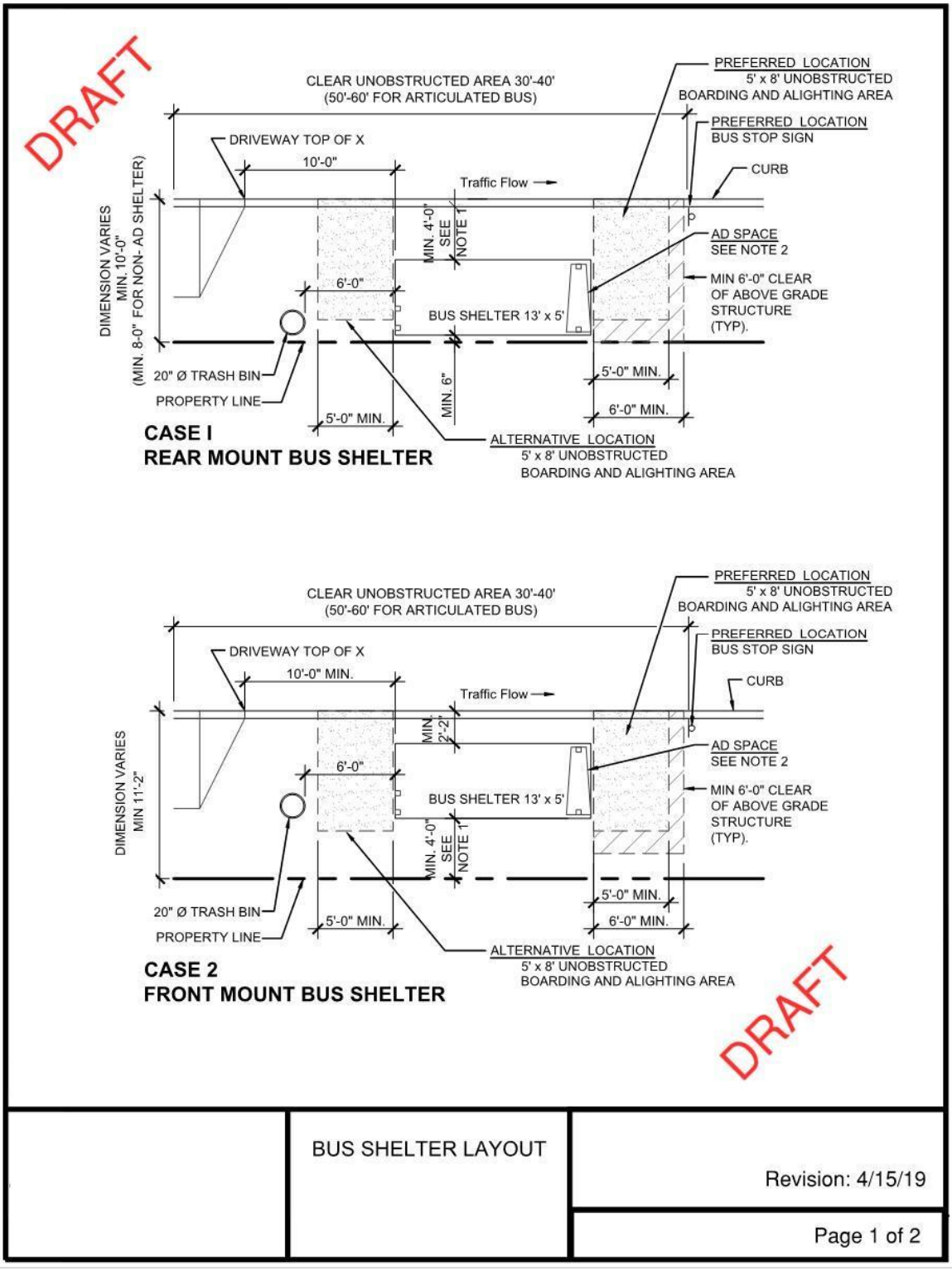
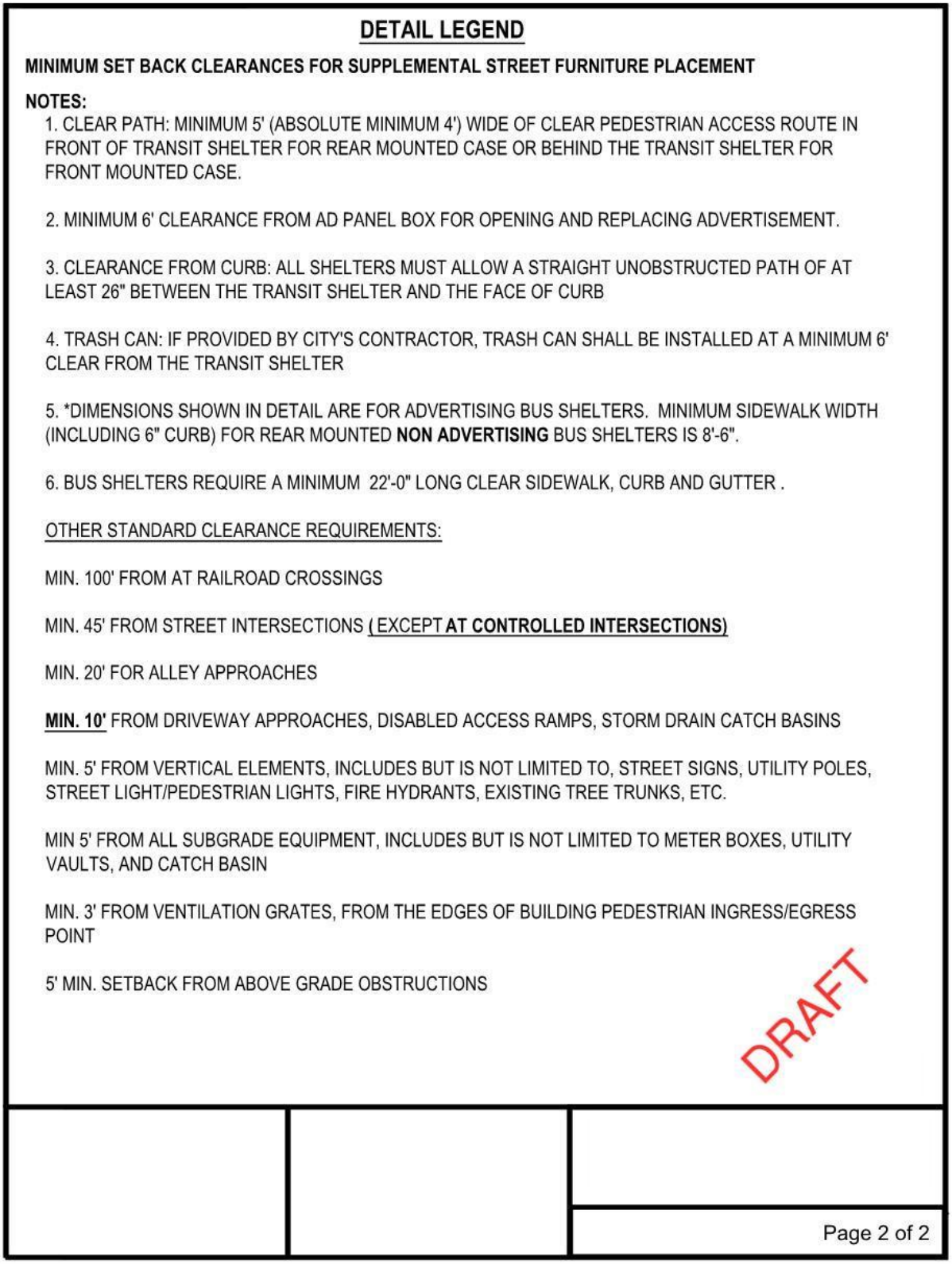


Figure 7: Typical Bus Stop Layout and Legend



DETAIL LEGEND

MINIMUM SET BACK CLEARANCES FOR SUPPLEMENTAL STREET FURNITURE PLACEMENT

NOTES:

1. CLEAR PATH: MINIMUM 5' (ABSOLUTE MINIMUM 4') WIDE OF CLEAR PEDESTRIAN ACCESS ROUTE IN FRONT OF TRANSIT SHELTER FOR REAR MOUNTED CASE OR BEHIND THE TRANSIT SHELTER FOR FRONT MOUNTED CASE.

2. MINIMUM 6' CLEARANCE FROM AD PANEL BOX FOR OPENING AND REPLACING ADVERTISEMENT.

3. CLEARANCE FROM CURB: ALL SHELTERS MUST ALLOW A STRAIGHT UNOBSTRUCTED PATH OF AT LEAST 26" BETWEEN THE TRANSIT SHELTER AND THE FACE OF CURB

4. TRASH CAN: IF PROVIDED BY CITY'S CONTRACTOR, TRASH CAN SHALL BE INSTALLED AT A MINIMUM 6' CLEAR FROM THE TRANSIT SHELTER

5. *DIMENSIONS SHOWN IN DETAIL ARE FOR ADVERTISING BUS SHELTERS. MINIMUM SIDEWALK WIDTH (INCLUDING 6" CURB) FOR REAR MOUNTED **NON ADVERTISING** BUS SHELTERS IS 8'-6".

6. BUS SHELTERS REQUIRE A MINIMUM 22'-0" LONG CLEAR SIDEWALK, CURB AND GUTTER .

OTHER STANDARD CLEARANCE REQUIREMENTS:

MIN. 100' FROM AT RAILROAD CROSSINGS

MIN. 45' FROM STREET INTERSECTIONS (EXCEPT **AT CONTROLLED INTERSECTIONS)**

MIN. 20' FOR ALLEY APPROACHES

MIN. 10' FROM DRIVEWAY APPROACHES, DISABLED ACCESS RAMPS, STORM DRAIN CATCH BASINS

MIN. 5' FROM VERTICAL ELEMENTS, INCLUDES BUT IS NOT LIMITED TO, STREET SIGNS, UTILITY POLES, STREET LIGHT/PEDESTRIAN LIGHTS, FIRE HYDRANTS, EXISTING TREE TRUNKS, ETC.

MIN 5' FROM ALL SUBGRADE EQUIPMENT, INCLUDES BUT IS NOT LIMITED TO METER BOXES, UTILITY VAULTS, AND CATCH BASIN

MIN. 3' FROM VENTILATION GRATES, FROM THE EDGES OF BUILDING PEDESTRIAN INGRESS/EGRESS POINT

5' MIN. SETBACK FROM ABOVE GRADE OBSTRUCTIONS

DRAFT

Page 2 of 2

Figure 7 (cont.) Typical Bus Stop Layout and Legend

Current Research on Distraction from Digital Signage

Review of current literature shows that there are no known focused research efforts regarding driver distraction due to scrolling or changeable advertising and signage at transit shelters[7], although there are several studies related to larger offsite digital billboards. The majority, if not all, of the current research into Commercial Electronic Variable Message Signs (CEVMS), or Digital Signs for short, are studies of the effects of billboards and large displays on the performance of drivers and whether they cause a significant driver distraction.

Perhaps the most relevant of study reports applicable to the STAP is one prepared by a government agency, and not sponsored by the out of home commercial advertising industry. The Federal Highway Administration (FHWA) of the U.S. Department of Transportation published a report in 2012[8] that investigated the effects of CEVMS on driver visual behavior in a roadway driving environment. In addition to reviewing the relevant background literature, the report contained the results of scientific research conducted on behalf of FHWA using instrumented vehicles specially equipped with eye tracking systems which could track where and how long drivers glanced while driving , and which was tested on freeways and arterials in two American cities – Richmond, VA and Reading, PA. The findings of this study indicate that drivers directed the majority of their visual attention to areas of the roadway that were relevant to the task at hand (i.e., the driving task).

First, after reviewing prior studies, the FHWA report stated, "Collectively, these studies did not demonstrate that the advertising signs detracted from drivers' glances forward at the roadway in a substantive manner while the vehicle was moving."[9] It added that gaze duration was most influenced by the task at hand, and accordingly, when there were fewer driver demands, for example, such as when stopped at a signal, drivers tended to gaze longer away from the road. FHWA continued, "In sum, most of the literature concerning eye gaze behavior in dynamic environments suggests that task demands tend to override visual salience in determining attention allocation. When extended to driving, it would be expected that visual attention will be directed toward task-relevant areas and objects (e.g., the roadway, other vehicles, speed limit signs, etc.) and other salient objects, such as billboards, will not necessarily capture attention."[10]

Second, the detailed findings of the field research specifically conducted for FHWA with drivers in real roadway situations indicated that drivers consistently devoted between 73 and 85 percent of their visual attention to the roadway itself. The average fixation time to CEVMS was 379 milliseconds[11] (ms), with the longest average dwell

[7] CIMA, 2013, Safety Impacts and Regulations of Electronic Static Roadside Advertising Signs Technical Memorandum #1 – Current Research Literature Review, Final Report.

[8] Federal Highway Administration [FHWA]. Driver Visual Behavior in the Presence of Commercial Electronic Variable Message Signs (CEVMS). Report prepared by SAIC. 2012.

[9] Ibid., 9.

[10] Ibid., 11.

[11] 1 seconds equals 1,000 milliseconds

time at 1,335 ms for a CEVMS. Previous studies by the National Highway Traffic Safety Administration (NHTSA) led to the conclusion that taking one's eyes off the road for 2 seconds (2,000 ms) or more presented a safety risk, so the FHWA study found drivers did not exceed the threshold in a statistically significant amount. The results of the two-prong FHWA research report did not provide evidence that CEVMS signs, as currently found within the study sites, were associated with unacceptably long views away from the road. In fact, "for tasks such as driving, the task demands tend to outweigh stimulus salience when it comes to gaze control,"[12] or in less technical language, the driver will typically and unconsciously adjust their behavior to the immediate and nearby environment, which includes considering a myriad of factors, such as the speed and amount of adjacent vehicular traffic, weather conditions, traffic signals, speed limit signs, and pedestrian crosswalks, as well as adjacent land uses, ranging from open space to a dense urban environment with buildings, to name but just a few. Furthermore, the FHWA field analysis noted "drivers distributed their gazes away from the road ahead even when there were no off-premise billboards present."[13]

A 2009 Report by Jerry Wachtel of the Veridian Group[14] and a subsequent 2018 literature up-date,[15] provides a summary of research into CEVMS and driver safety. Many of the reports summarized by Wachtel in his compendium look at drivers' gazes and times/length of gaze away from the road ahead. In these summarized reports, Wachtel concludes that there is growing evidence that digital billboards do distract drivers because these displays increase driver glance duration and the driver's gaze is reflectively drawn to objects with different luminance within their view. However, the research does not show any definitive increase in the number of actual crashes which have occurred, but only an increased risk probability for a crash to occur as a result of driver distraction.

The authors of the research studies summarized in Wachtel's compendium looked at and evaluated the placement and/or effects of billboards on the responses of drivers, primarily through driver simulations. A number of studies also looked at actual conditions, including one conducted in Israel in which existing digital billboards were covered for a three-year period, so that a comparison of crash data between a control site, and the treatment site. i.e., covered vs. uncovered billboards, was possible. The study found that crashes decreased when the billboards were covered[16].

However, while these studies and reports analyzed the effects of large digital signage along freeways and highways, they did not analyze what, if any, effects might be anticipated with smaller signage located along lower speed roads which is more

[12] FHWA, 2012, 38.

[13] Ibid., 54.

[14] Wachtel, J. 2009. "Safety Impacts of the Emerging Digital Display Technology for Outdoor Advertising Signs: Final Report. NCHRP Report 20-7/256.

[15] Wachtel, J. 2018 Compendium of Recent Research Studies on Distraction from Commercial Electronic Variable Message Signs (CVMS).

[16] Gitelman, V. Zaidel, D., & Doveh, E. 2013. "Influence of Billboards on Driving Behavior and Road Safety" Transportation Research Board of the National Academies.

typical of city streets. Lower driving speeds would imply a longer allowable response time to any driving incident (e.g., a sudden stop of the lead car in a queue). Also not analyzed was the effect of the placement of the signage along the roadway – e.g., is it located before or beyond the traffic light at intersections; is it placed so that viewers see both the sign and, peripherally, the roadway as well; does the position of the signage within a structure make a difference (and how transparent/open that structure is); the effects of the length or duration of any one image on slower speed roadways; or what the effects of the brightness of the display in association with the ambient light of the roadway may be.

The effects, if any, from digital signage along a local roadway, such as that proposed in the STAP project, must be extrapolated from these larger studies. This also applies to adopting measures to help reduce driver distraction, such as those proposed by STAP for limiting sign turn over frequency and light level contrast associated with the signage. While some studies found a higher propensity for driver distraction due to the presence of outdoor advertising, others did not or whose results were at best inconclusive. The basic take away from the studies cited here would infer that while there may be a potential for drivers to be distracted to varying degrees by roadside elements, including smaller digital signage, drivers may just as well or to a greater degree be distracted by other roadside and in-car elements vying for their attention. While additional studies that isolate and proportionately weigh these variables would be helpful to expand the knowledge base in this field, at this time, the information available regarding driver distraction does not raise significant safety concerns related to smaller digital signage comparable to what is proposed for STAP.

Attachment B
List of City Designated Scenic Routes

Source: Mobility Plan 2035. 2016. City of Los Angeles, Department of City Planning. Appendix B: Inventory of Designated Scenic Highways and Guidelines.

Inventory of Designated Scenic Highways

Street Name	Alignment	Scenic Features or Resources/Comment
Adams Blvd	Figueroa to Crenshaw	
Avenue of the Stars	Santa Monica to Pico	Wide landscaped median, fountains
Balboa Blvd	1.Fwy. 5 to Sesnon; 2.Victory to Burbank Blvd	Streets should be designed so as to least disrupt the scenic qualities of the area it traverses. Sepulveda Basin, park access
Barham Blvd	Fwy. 101 to Forest Lawn Dr.	Dramatic pass with northerly Valley views
Beverly Glen Blvd.	Ventura Blvd. to Sunset Blvd.	Winding cross mountain road; valley views
Big Tujunga Canyon Blvd.	Fwy. 210 to northerly City boundary	Canyon road with impressive views of rugged mountains
Brand Blvd	Sepulveda to City boundary	Landscaped median
Broadway	98th St. to 112th St.	Wide landscaped median
Burbank Blvd	Balboa to Fwy. 405	Sepulveda Basin, park access
Burton Way	Le Doux Rd to City boundary with Beverly Hills	Wide landscaped median
Coldwater Canyon Dr	Ventura Blvd to City boundary with Beverly Hills	Winding cross mountain road providing access to the Mulholland Scenic Parkway
Colorado Blvd	Eagledale to Monte Bonito	(Specific Plan Ord. No. 168,046)
Crenshaw Blvd	Fwy. 10 to Slauson	
Culver Blvd	Vista Del Mar to Ballona Creek	Ocean and Marina views, Ballona wetlands
Eagle Rock Blvd	NE'ly Verdugo Rd to Colorado Blvd	Landscaped median
Forest Lawn Dr	Barham to Griffith Park Dr.	Winding road past Hollywood Hills; gateway to Griffith Park
Fwy. 5	Fwy. 210 to N'ly City limit	State Scenic Highway
Fwy. 101	Topanga Canyon Blvd to W'ly City limit	State Scenic Highway
Fwy, 118	DeSoto Ave to W'ly City limit	State Scenic Highway
Fwy. 210	Fwy. 5 to E'ly City limit	State Scenic Highway
Glendale Blvd	LA River Bridge to City Boundary with Glendale	Wide landscaped median
Harbor Blvd	Vincent Thomas Bridge to Crescent Ave + future alignment to Shepard St	Views of historic San Pedro and the Port
Highland Ave	Wilshire to Melrose	Landscaped median, significant palm trees
Huntington Dr N	Monterey Rd to E'ly City limit	Wide landscaped median
John S. Gibson Blvd	Harry Bridges Blvd to Pacific Ave	Views of harbor activities, Vincent Thomas Bridge
La Tuna Canyon Blvd	Sunland Blvd to Fwy. 210	Views of ranches in Verdugo Hills
Laurel Canyon Blvd	Ventura Blvd to Hollywood Blvd	Winding cross mountain road through rustic area

Inventory of Designated Scenic Highways

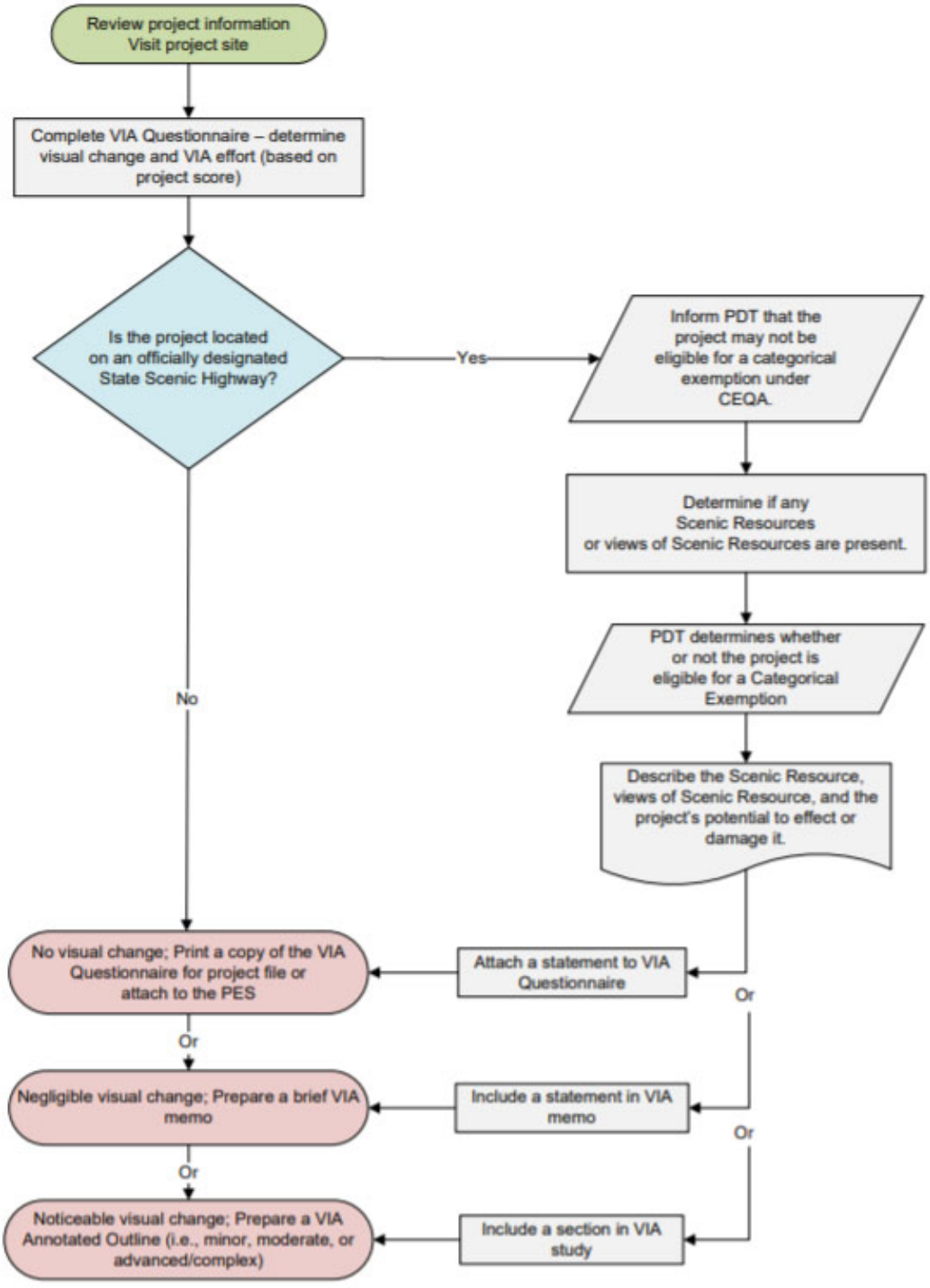
Street Name	Alignment	Scenic Features or Resources/Comment
Leimert Blvd	MLK to 43rd Place	Landscaped median
Lincoln Blvd (Highway Route 1)	Venice Blvd to City boundary with Santa Monica	State Scenic Highway
Los Feliz Blvd	Riverside Dr to Western Ave	Hillside and city views
Monterey Rd	Hardison Way to Huntington Dr	
Mountaingate Dr	Canyonback Sepulveda	Landscaped median
Mullholland Dr	1. Fwy. 101 westerly to Mulholland Hwy; 2. Mulholland Hwy to Valley Circle Blvd	(Specific Plan Ord. No. 167,943) Panoramic views, "ribbon of park"
Pacific Avenue/Front St	John S. Gibson Blvd to Harbor Blvd	Views of Vincent Thomas Bridge; views of historic San Pedro and Port
Pacific Coast Highway (Highway Rte. 1)	Entire alignment N. of Fwy. 10 (City portion)	State Scenic Highway
Palisades Dr	Sunset Blvd to N'ly terminus	Wide mountain road; good landscaping and ocean views
Paseo del Mar	Western Ave to Gaffey St	Hillside bluff route with ocean views, park access
Plummer St	Valley Circle to Topanga Canyon	(LAMC 17.05-T)
Porter Ranch Streets Corbin Ave Mason Ave Rinaldi St Sesnon Blvd Winnetka Ave	(future streets)	(Specific Ord. No. 166,-068)
Reseda Blvd	1. Portion N. of Rinaldi; 2. Ventura Blvd. to S'ly terminus	Street should be designed so as to least disrupt scenic qualities of the hillside area it traverses
Rinaldi St *	Fwy. 405 to Corbin Ave	Hillside street with good mountain, Valley Views
Riverside Dr	Los Feliz Blvd to Stadium Way	Essential link in "chain of parks" concept
Santa Monica Blvd	Sepulveda to City Boundary with Beverly Hills	
Santa Susana Pass Rd	Entire alignment within City	Dramatic pass; hillside and Valley views
San Vicente Blvd	1. Pico Blvd to Colgate Ave; 2. Goshen Ave to 26th St	Wide street with landscaped median [Specific Plan Ord. No. 161,766]; wide landscaped median
Sepulveda Blvd	1. Fwy 405 to Sunset Blvd; 2. Rayen St. to Devonshire St	Old cross mountain road with tunnel, views of mountains and Valley Wide street with landscaped median

Inventory of Designated Scenic Highways

Street Name	Alignment	Scenic Features or Resources/Comment
Sesnon Blvd *	Winnetka Ave to Balboa Blvd	Street should be designed so as to least disrupt the scenic qualities of the hillside area it traverses
Sherman Way	Variel to Kester	Wide street, landscaped median
Shepard Street	Pacific Ave to Gaffey St	Views of harbor, ocean
Silver Lake Blvd	Duane St to Armstrong Ave	Views to and from Reservoir; landscaped setbacks
Stadium Way	Fwy. 5 to Fwy. 110	Winding drive through Elysian Park
Sunland Blvd	Chivers Ave. to Fwy. 210	Hillside views
Sunset Blvd	PCH to City Boundary with Beverly Hills	Views of mountains, estates, UCLA campus
Tampa Ave	Portion N. of Devonshire St	Street should be designed so as to least disrupt the scenic qualities of the hillside area it traverses
Temescal Canyon Rd	PCH to Sunset Blvd	Broad avenue lined with parks and amenities
Topanga Canyon Blvd (Highway Rte. 27)	PCH to Mulholland Dr (City portion)	State Scenic Highway
Valley Circle Blvd	Mulholland Dr. to Plummer St.	"country road" winding past Chatsworth Reservoir with views of "Twelve Apostles" rock formations (LAMC 17.05-T.)
Venice Blvd	Longwood to Abbot Kinney	Wide street, landscaped median
Ventura Blvd	Valley Circle to Fwy. 405	(Specific Plan Ord. No. 166,650)
Vermont Ave	Gage to Gardena Blvd	Wide street, landscaped median
Vineland Ave	Ventura Blvd to Magnolia	Landscaped median
Vista del Mar	Culver Blvd to Imperial Highway	Sand dunes and ocean views
Wentworth St	Sheldon St to Fwy. 210	Views of hills, Hansen Dam and Tujunga Wash
Western Ave	1.25th St to Paseo del Mar; 2. Franklin Ave to Los Feliz	Hillside and ocean views Hillside and city views
White Oak Ave	Rinaldi to Devonshire	Deodar trees cultural-historic monument
Wilshire Blvd	1.Beverly Hills boundary to Malcom Ave; 2.Sycamore to Fairfax	(Specific Plan Ord. No. 155,044) Miracle Mile; landscaped median
Woodley Ave	Victory to Burbank Blvd	Park access; Sepulveda Basin
25th St	Western Ave to W'ly City boundary	Hillside and ocean views
Avenue 64	York Blvd to N'ly City boundary	

City of Los Angeles Transportation Element 1999 - Appendix E

Attachment C
Caltrans' Decision Tree and Questionnaire



VIA = Visual Impact Assessment
PDT = Project Development Team
PES = Preliminary Environmental Study

Home | Programs | Design | Visual Impact Assessment | VIA Questionnaire

Questionnaire to Determine Visual Impact Assessment (VIA) Level

Use the following questions and subsequent score as a guide to help determine the appropriate level of VIA documentation. This questionnaire assists the VIA preparer (i.e. Landscape Architect) in estimating the probable visual impacts of a proposed project on the environment and in understanding the degree and breadth of the possible visual issues. The goal is to develop a suitable document strategy that is thorough, concise and defensible.

Enter the project name and consider each of the ten questions below. Select the response that most closely applies to the proposed project and corresponding number on the right side of the table. Points are automatically computed at the bottom of the table and the total score should be matched to one of the five groups of scores at the end of the questionnaire that include recommended levels of VIA study and associated annotated outlines (i.e., minor, moderate, advanced/complex).

This scoring system should be used as a preliminary guide and should not be used as a substitute for objective analysis on the part of the preparer. Although the total score may recommend a certain level of VIA document, circumstances associated with any one of the ten question-areas may indicate the need to elevate the VIA to a greater level of detail. For projects done by others on the State Highway System, the District Landscape Architect should be consulted when scoping the VIA level and provide concurrence on the level of analysis used.

The Standard Environmental Reference, Environmental Handbook, Volume I: Chapter 27-Visual & Aesthetics Review lists preparer qualifications for conducting the visual impact assessment process. Landscape Architects receive formal training in the area of visual resource management and can appropriately determine which VIA level is appropriate.

Preparer Qualifications:

> "Scenic Resource Evaluations and VIA's are performed under the direction of licensed Landscape Architects. Landscape Architects receive formal training in the area of visual resource management with a curriculum that emphasizes environmental design, human factors, and context sensitive solutions. When recommending specific visual mitigation measures, Landscape Architects can appropriately weigh the benefits of these different measures and consider construction feasibility and maintainability."

Calculate VIA Level Score

Project Information

Project Name

STAP

Project Identification #

None

Preparer Name

Jeffrey Lormand

Caltrans District Landscape Architect (DLA)

For projects on State Highway System Only, Name of Caltrans District Landscape Architect (DLA) providing VIA Questionnaire Score Concurrence - if different than above.

For Projects on State Highway System Only, Enter DLA Name

Change to Visual Environment

1. **Will the project result in a noticeable change in the physical characteristics of the existing environment?**

Consider all project components and construction impacts - both permanent and temporary, including landform changes, structures, noise barriers, vegetation removal, railing, signage, and contractor activities.

Low Level of Change (1 point)

2. **Will the project complement or contrast with the visual character desired by the community?**

Evaluate the scale and extent of the project features compared to the surrounding scale of the community. Is the project likely to give an urban appearance to an existing rural or suburban community? Do you anticipate that the change will be viewed by the public as positive or negative? Research planning documents, or talk with local planners and community representatives to understand the type of visual environment local residents envision for their community.

Moderate Compatibility (2 points)

3. **What level of local concern is there for the types of project features (e.g., bridge structures, large excavations, sound barriers, or median planting removal) and construction impacts that are proposed?**

Certain project improvements can be of special interest to local citizens, causing a heightened level of public concern, and requiring a more focused visual analysis.

Moderate Concern (2 points)

4. **Will the project require redesign or realignment to minimize adverse change or will mitigation, such as landscape or architectural treatment, likely be necessary?**

Consider the type of changes caused by the project, i.e., can undesirable views be screened or will desirable views be permanently obscured so a redesign should be considered?

No Mitigation Likely (0 points)

5. **Will this project, when seen collectively with other projects, result in an aggregate adverse change (cumulative impacts) in overall visual quality or character?**

Identify any projects (both Caltrans and local) in the area that have been constructed in recent years and those currently planned for future construction. The window of time and the extent of area applicable to possible cumulative impacts should be based on a reasonable anticipation of the viewing public's perception.

Cumulative Impacts Unlikely to Occur (1 point)

Viewer Sensitivity

1. **What is the potential that the project proposal will be controversial within the community, or opposed by any organized group?**

This can be researched initially by talking with Caltrans and local agency management and staff familiar with the affected community's sentiments as evidenced by past projects and/or current information.

Select a Response (Score)

2. **How sensitive are potential viewer-groups likely to be regarding visible changes proposed by the project?**

Consider among other factors the number of viewers within the group, probable viewer expectations, activities, viewing duration, and orientation. The expected viewer sensitivity level may be scoped by applying professional judgment, and by soliciting information from other Caltrans staff, local agencies and community representatives familiar with the affected community's sentiments and demonstrated concerns.

Moderate Sensitivity (2 points)

3. **To what degree does the project's aesthetic approach appear to be consistent with applicable laws, ordinances, regulations, policies or standards?**

Although the State is not always required to comply with local planning ordinances, these documents are critical in understanding the importance that communities place on aesthetic issues. The Caltrans Environmental Planning branch may have copies of the planning documents that pertain to the project. If not, this information can be obtained by contacting the local planning department. Also, many local and state planning documents can be found online at the California Land Use Planning Network.

High Compatibility (1 point)

4. **Are permits going to be required by outside regulatory agencies (i.e., Federal, State, or local)?**

Permit requirements can have an unintended consequence on the visual environment. Anticipated permits, as well as specific permit requirements - which are defined by the permitted, may be determined by talking with the project Environmental Planner and Project Engineer. Note: coordinate with the Caltrans representative responsible for obtaining the permit prior to communicating directly with any permitting agency.

No (1 point)

5. **Will the project sponsor or public benefit from a more detailed visual analysis in order to help reach consensus on a course of action to address potential visual impacts?**

Consider the proposed project features, possible visual impacts, and probable mitigation recommendations.

No (1 point)

Calculate Total

It is recommended that you print a copy of these calculations for the project file.

Project Score: 11

Select An Outline Based Upon Project Score

The total score will indicate the recommended VIA level for the project. In addition to considering circumstances relating to any one of the ten questions-areas that would justify elevating the VIA level, also consider any other project factors that would have an effect on level selection.

Score 6-9

No noticeable visual changes to the environment are proposed and no further analysis is required. Print out a copy of this completed questionnaire for your project file or Preliminary Environmental Study (PES).

Score 10-14

Negligible visual changes to the environment are proposed. A brief Memorandum(see sample)addressing visual issues providing a rationale why a technical study is not required.

Score 15-19

Noticeable visual changes to the environment are proposed. An abbreviated VIA is appropriate in this case. The assessment would briefly describe project features, impacts and any avoidance and minimization measures. Visual simulations would be optional. Go to the Directions for using and accessing the Minor VIA Annotated Outline.

Score 20-24

Noticeable visual changes to the environment are proposed. A fully developed VIA is appropriate. This technical study will likely receive public review.Go to the Directions for using and accessing the Moderate VIA Annotated Outline.

Score 25-30

Noticeable visual changes to the environment are proposed. A fully developed VIA is appropriate that includes photo simulations. It is appropriate to alert the Project Development Team to the potential for highly adverse impacts and to consider project alternatives to avoid those impacts.Go to the Directions for using and accessing the Advanced/Complex VIA Annotated Outline.

Attachment D
Review of Regulations of Other Jurisdictions

A sample review of the municipal codes of a number California cities showed that most cities do not have specific regulations for digital advertisements at transit shelters, static or otherwise. Cities such as Burbank, Pasadena, and Irvine, for example, had limited mention of transit shelters or bus shelters, i.e., typically only in terms of setbacks from the curb, non-smoking regulations, etc. Orange County has a specific code section related to bus shelters and benches, and a subsection related to advertising, including specifying allowable language and placement, but not on digital displays or content, per se. Other cities, such as the cities of Palo Alto and Santa Ana, spell out the specific approvals needed for transit shelters. In Palo Alto, shelter design with any advertising requires approval from the Architectural Review Board and its placement location needs to be approved by the City's Planning Director. In the city of Santa Ana, the Public Works Director must give the approval. Several municipalities address transit shelter ads under a broader category of "signs" and/or “outdoor advertising” within their municipal codes. For example, the City of Oceanside has broad policies related to "existing signage, including but not limited to animated, billboard, digital display, and electronic message signage." But the language used by local governments in California in most cases relates to the billboards with commercial advertising that are propped up on poles. Other cities, such as Santa Barbara, appear to have an ordinance related to regulating outdoor lighting, sometimes in the context of preventing visual clutter and./or light pollution, but with no specific language applying to digital displays at transit shelters.

Jurisdictions that have adopted regulations for digital displays include the City of West Hollywood, which allows creative signs with electronic graphics and video displays as part of a comprehensive sign program, subject to City review and a sign permit. In 2019, the City of West Hollywood amended the Sunset Specific Plan to establish new policies, guidelines and standards for advertising signs (i.e., billboards, tall wall signs, temporary creative billboards, and alternative projects or installations). The amended Specific Plan requires permits for offsite signs; allows large screen video signs at specific locations; includes a digital offsite advertising sign distribution map; sets standards for design quality, sustainability and value; requires a viewshed analysis and public and arts programming; and includes protections for cultural and paleontological resources and existing vegetation. It also set hours of operations for digital billboards, limits illuminance to 1.4 footcandles at the adjacent residential property line; regulates illuminance transition rates/refresh rates, prohibits colors similar to those of traffic signs, scrolling text, stroboscopic flashing images, rapidly changing images or brightness and video animations; allows sound only during special events; and requires lighting monitoring.

Other municipalities regulate transit shelter signs by setting a maximum area and dwell time limits of 6 to 10 seconds; prohibiting animation and requiring transition times to be less than one second, along with brightness controls and preventing display from being a distraction to traffic signals. Others regulate shelter signs to be installed in

such a way that the source of the light is shielded from direct view of abutting properties and from traffic along the street.

The City of Los Angeles Municipal Code (LAMC) Chapter I, Article 4.4 contains the City's sign regulations, including requirements for offsite signs and digital displays, among others. It includes provisions for prohibited off-site signs, including off-site digital displays, unless specifically permitted pursuant to a legally adopted specific plan, supplemental use district or an approved development agreement. It also prohibits signs that constitute a hazard to traffic; regulates freeway exposure of signs; and sets standards for different sign types. However, these sign regulations do not apply to signs within the public right-of-way.

A number of the City's adopted Specific Plans and Sign Districts include standards for digital displays, sign refresh rates, illumination levels, and animated signs. See the Land Use Consistency Analysis for a summary of land use plans, policies, and programs that contain design standards for digital displays.