



Visual Impact Assessment State Route 710 North Study

Prepared for



Metro

Los Angeles County
Metropolitan Transportation Authority

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VISUAL IMPACT ASSESSMENT
FOR
STATE ROUTE 710 NORTH STUDY
COUNTY OF LOS ANGELES, CALIFORNIA

07-LA-710 (SR 710) EA 187900

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This visual impact assessment has been prepared under the direction of the above listed licensed landscape architects. The landscape architects attest to the technical information contained herein and the data upon which recommendations, conclusions, and decisions are based.

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LIST OF ACRONYMS AND ABBREVIATIONS

AM	Ante Meridiem (before noon)
ATM	Active Traffic Management
Ave/Ave.	Avenue
Bl/Blvd.	Boulevard
BRT	Bus Rapid Transit
CA	California
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CMS	Changeable Message Signs
Cal State LA	California State University, Los Angeles
Dia	Diameter
Dr/Dr.	Drive
E	East
EA	Environmental Assessment
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
Express	Express Bus
F7	Freeway Tunnel Alternative F7
FHWA	Federal Highway Administration
Foothill	Foothill Transit
ft/ft.	Foot/Feet
FWY	Freeway
FTIP	Federal Transportation Improvement Program
GP	General Purpose
GPS	Global Positioning System
I	Intactness
I-5	Interstate 5
I-10	Interstate 10
I-105	Interstate 105
I-210	Interstate 210
I-405	Interstate 405
I-605	Interstate 605
I-710	Interstate 710
ID	Identification
i.e.,	id est
IEN	Information Exchange Network
ITS	Intelligent Transportation Systems
LA	Los Angeles
LADWP	Los Angeles Department of Water and Power
LRT	Light Rail Transit
LRTP	Long Range Transportation Plan
Metro	Los Angeles County Metropolitan Transportation Authority
mi	Miles
mph	Miles Per Hour
MSA	Los Angeles-Long Beach-Santa Ana Metropolitan Statistical Area
N	North
NB	Northbound
ND	Negative Declaration
NE	Northeast
NEPA	National Environmental Policy Act
NNE	North northeast
No.	Number
NW	Northwest

O&M	Operations and Management
PM	Post Meridiem (after noon)
Project	State Route 710 North Project
PVQ	Proposed Visual Quality
Rapid	Bus Rapid Transit
Rd/Rd.	Road
ROW	Right of Way
RTP	Regional Transportation Plan
S	South
SAFETEA-LU	Safe, Accountable, Flexible and Efficient Transportation Equality Act: A Legacy for Users
SB	Southbound
SCAG	Southern California Association of Governments
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SE	Southeast
Shld	Shoulder
SR 2	State Route 2
SR 22	State Route 22
SR 57	State Route 57
SR 60	State Route 60
SR 91	State Route 91
SR 110	State Route 110
SR 118	State Route 118
SR 134	State Route 134
SR 170	State Route 170
SR 710	State Route 710
SSE	South South East
St.	Saint
St/St.	Street
SW	Southwest
TAP	Transit Access Pass
TDM	Transportation Demand Management
TSM	Transportation Systems Management
TSSP	Traffic Signal Synchronization Program
Typ	Typical
U	Unity
U.S.	United States
US 101	United States Route 101
USC	United States Code
USGS	United States Geological Survey
V	Vividness
VIA	Visual Impact Assessment
VQ	Visual Quality
W	West
WNW	West North West
WSW	West South West
Wy.	Way

I. EXECUTIVE SUMMARY

SUMMARY OF VISUAL IMPACT ASSESSMENT DESCRIPTION

The purpose of this study is to assess the visual impacts of the proposed State Route 710 (SR 710) North project (Project) and to propose measures to avoid, minimize, and/or conceal any adverse visual impacts associated with the construction of the proposed Project on the surrounding visual environment. It includes evaluations on the reduction or avoidance of possible adverse visual impacts and proposes possible visual measures to alleviate those adverse impacts.

The process for assessing possible visual impacts used in this visual impact assessment generally follows the guidelines outlined in the Federal Highway Administration's (FHWA) March 1981 publication Visual Impact Assessment for Highway Projects. In this methodology, the visual impact is derived by assessing two main criteria: visual resource change, and viewer response. This visual impact assessment has been performed under the direction of a California-licensed landscape architect.

SUMMARY OF PROJECT DESCRIPTION

The California Department of Transportation (Caltrans), in cooperation with the Los Angeles County Metropolitan Transportation Authority (Metro) proposes transportation improvements to improve mobility and relieve congestion in the area between State Route 2 (SR 2) and Interstates 5, 10, 210 and 605 (I-5, I-10, I-210, and I-605, respectively) in east/northeast Los Angeles and the western San Gabriel Valley. The study area for the State Route 710 (SR 710) North Study is approximately 100 square miles and generally bounded by I-210 on the north, I-605 on the east, I-10 on the south, and I-5 and SR 2 on the west. Caltrans is the Lead Agency under the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA).

The lack of continuous north-south transportation facilities in the study area has the following consequences, which have been identified as the elements of need for the project:

- o Degradation of the overall efficiency of the larger regional transportation system
- o Congestion on freeways in the study area
- o Congestion on the local streets in the study area
- o Poor transit operations within the study area

The purpose of the proposed action is to effectively and efficiently accommodate regional and local north-south travel demands in the study area of the western San Gabriel Valley and east/northeast Los Angeles, including the following considerations:

- o Improve efficiency of the existing regional freeway and transit networks.
- o Reduce congestion on local arterials adversely affected due to accommodating regional traffic volumes.
- o Minimize environmental impacts related to mobile sources.

The proposed alternatives for the project include:

- o the No Build Alternative, the Transportation System Management/Transportation Demand Management (TSM/TDM) Alternative,
- o the Bus Rapid Transit (BRT) Alternative
- o the Light Rail Transit (LRT) Alternative
- o the Freeway Tunnel Alternative

Components of the TSM/TDM Alternative will also be included with the BRT, LRT and Freeway Tunnel Alternatives.

The No Build Alternative includes projects/planned improvements through 2035 that are contained in the Federal Transportation Improvement Program (FTIP), as listed in the Southern California Association of Governments (SCAG) 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Measure R and the funded portion of Metro's 2009 Long Range Transportation Plan (LRTP). The No Build Alternative does not include any planned improvements to the SR 710 Corridor.

The TSM/TDM Alternative consists of strategies and improvements to increase efficiency and capacity for all modes in the transportation system with lower capital cost investments and/or lower potential impacts. The TSM/TDM Alternative is designed to maximize the efficiency of the existing transportation system by improving capacity and reducing the effects of bottlenecks and chokepoints. TSM strategies include Intelligent Transportation Systems (ITS), local street and intersection improvements, and Active Traffic Management (ATM). The TDM strategies include expanded bus service, bus service improvements, and bicycle improvements.

The BRT Alternative would provide high-speed, high-frequency bus service through a combination of new, dedicated, and existing bus lanes and mixed-flow traffic lanes to key destinations between East Los Angeles and Pasadena.

The LRT Alternative would include passenger rail operated along a dedicated guideway, similar to other Metro light rail lines. The LRT Alternative would begin on Mednik Avenue adjacent to the existing East Los Angeles Civic Center Station on the Metro Gold Line and end at Raymond Avenue adjacent to the existing Fillmore Station on the Metro Gold Line.

The Freeway Tunnel Alternative would start at the existing southern stub of SR 710 in Alhambra, just north of I-10, and connect to the existing northern stub of SR 710, south of the I-210/SR 134 interchange in Pasadena. The Freeway Tunnel Alternative has two design variations: a dual-bore tunnel and a single-bore tunnel.

Operational variations for the Freeway Tunnel Alternative include:

- o the freeway tunnel alternative without tolls
- o freeway tunnel alternative with trucks excluded
- o freeway tunnel alternative with tolls
- o the freeway tunnel alternative with tolls and trucks excluded
- o the freeway tunnel alternative with toll and express bus.

SUMMARY OF KEY VIEW DEVELOPMENT METHODOLOGY

This Visual Impact Assessment has been written under the direction of a California-licensed landscape architect as required by Caltrans and generally follows the FHWA's guidelines.

Preliminary selection of the Key Views was conducted by an in-house analysis of mapping data. Points deemed to have a possible representative view of the study area for the various Build Alternatives were selected. The next step was to conduct a series of field studies for each potential Key View location. A team of Tatsumi and Partners' analysts, as well as a photographer, conducted these studies from August 2012 to October 2013. Each of these field studies involved visiting the preliminary Key Views, confirming the land uses of the area and determining the representative nature of the views to the study area. Many preliminary locations were deleted from further consideration due to large obstructions of the view of the proposed Project features such as hills and other topographic features. Those deemed reasonable were included in the preliminary group of 30 Key View locations submitted to environmental team and Caltrans for review and approval.

Preparation of the visual simulations began with the photographs that were taken during the initial field studies. Photographs were taken using a digital camera with the lens set at 30mm to best mimic the perspective of the human eye. Digital models were created using the horizontal and vertical data of the Project construction and other aerial mapping sources. The data was then verified with the project engineers. "Wireframe" views using the architectural standard height of 5'7" were then created. Next, the wireframe was "painted" and sculpted to simulate the objects as they would be after the installation of Build Alternatives with standard Caltrans landscaping. No attempt to provide enhancements beyond the standard was made.

SUMMARY OF ENVIRONMENTAL LAWS AND POLICIES

Relevant Federal visual policies include the National Environmental Policy Act of 1969, Section 4(f) of the Department of Transportation Act, 1966, and the Historic Preservation Act of 1969.

The California Environmental Quality Act, 1970 and California Department of Transportation – State Scenic Highway documents are the state laws and policies that pertain to the protection of visual resources.

Local visual policies from the County of Los Angeles and the proposed Project impacted cities of Los Angeles, Monterey Park, Alhambra, South Pasadena, and Pasadena were found in the various General Plans for each entity. Common themes among the different policies include the preservation of open spaces, the environment, and views of natural open spaces, the conservation of historic character and sense of community, and providing an improved environment.

SUMMARY OF VISUAL ENVIRONMENT OF THE PROJECT STUDY AREA

The specific visual environment upon which this assessment focuses is determined by defining landscape units and the project viewshed. The project setting includes unincorporated areas of Los Angeles County and the cities of Los Angeles, Monterey Park, Alhambra, South Pasadena, Pasadena, San Gabriel, San Marino, El Monte, Temple City and Arcadia.

The project area is located between State Route 2 (SR 2) and Interstates 5, 10, 210 and 605 (I-5, I-10, I-210, and I-605, respectively) in east/northeast Los Angeles and the western San Gabriel Valley. The study area for the State Route 710 (SR 710) North Study as depicted on Figure 3-1 is approximately 100 square miles and generally bounded by I-210 on the north, I-605 on the east, I-10 on the south, and I-5 and SR 2 on the west. The northern terminus of the I-710 is located at Valley Boulevard in Alhambra, just north of the I-10.

The Greater Los Angeles Basin is a coastal sediment-filled plain located at the north end of the Peninsular Ranges province in southern California and contains the central part of the city of Los Angeles as well as its southern and southeastern suburbs. It is approximately 50 miles long and 25 miles wide, bounded on the north by the Santa Monica Mountains and San Gabriel Mountains (including the Elysian, Repetto, and Puente Hills), on the east by the Santa Ana Mountains, and on the south by the Pacific Ocean and the Palos Verdes Hills, along the coast. The confluence of the Los Angeles and Rio Hondo rivers is the center of the basin. The low land surface slopes gently south (or seaward), but it is interrupted by the Coyote Hills near the northeast margin, by a line of elongated low hills and mesas to the south and west that extends from Newport Bay northwest to Beverly Hills, and by the Palos Verdes peninsula at the southwest extremity.

Los Angeles County is geographically one of the largest counties in the nation. The unincorporated areas of the County comprise 2,656.6 square miles of Los Angeles County's 4,083.2 square miles, equivalent to approximately 65% of the County's total land area. The unincorporated areas of the County consist of 124 separate, noncontiguous land areas. These areas in the northern part of the County are covered by large amounts of sparsely populated land and include the Angeles and Los Padres National Forests and the Mojave Desert. The unincorporated areas of the southern portion of the County consist of 58 communities, located among the other urban incorporated cities in the County, which are often referred to as the County's unincorporated urban islands. The County's southwestern boundary consists of the Pacific Ocean coastline and encompasses the Santa Catalina and San Clemente Islands.

Los Angeles County is heavily urbanized, and most of the undeveloped land that remains is within unincorporated areas. Unincorporated areas within the County are climatically and ecologically diverse and include coastal, mountain, forest, and desert ecosystems. There are a number of wildlife corridors in the County that connect the Mojave Desert, San Gabriel Mountains, Santa Susana Mountains, Santa Monica Mountains, and Puente Hills with other core areas of wildlife habitat. The County has jurisdictional control over numerous rivers, creeks, and flood control channels and other rights-of-way.

The Arroyo Seco Parkway National Scenic Byway watershed begins in the San Gabriel Mountains and passes through the communities of Pasadena, South Pasadena, and Northeast Los Angeles. The Arroyo unites a highly diverse region and serves as the focal point of a shared identity. The Arroyo Seco proceeds on, passing under the SR 134, and crosses at the southern boundary of Pasadena. The channel continues along the western boundary of South Pasadena, then into northeast Los Angeles flowing southeast of the Verdugo Mountains and Mount Washington.

A viewshed is comprised of all the surface areas visible from an observer's viewpoint. The Verdugo Mountains, San Gabriel Mountains and Santa Ana Mountains can be found within the project viewshed.

The viewers within the project viewshed will experience a number of different visual experiences while traveling along the proposed project route. These views would include examples where a wide expansive slope may be seen in the foreground with flat landforms of various urban uses seen in the middle ground and immediate background. When viewed from other locations along the route, the view may exhibit high traffic and urban uses in the foreground with the views toward the middle ground and background limited by structures and/or mature vegetation. Views from recreation areas are likely to include flat, level topography in the foreground and middle ground with residential, commercial/retail and/or vegetation in the background.

In addition, many of the viewers may see the in the upper distant background views of the Verdugo Mountains (with peaks reaching as high as 3140') and/or the San Gabriel Mountains (with multiple peaks rising up to 6540' high).

The density of the objects within the viewshed will vary based upon the location of viewer and what landscape unit's the viewer is observing. Residential viewsheds would run a range from low density, single-family units to high density apartment complexes. Recreation and Industrial units would be primarily low density viewsheds. Education units could range from low density elementary schools to high

density university campuses. Commercial/Retail units would generally be high density viewsheds with multiple business buildings grouped together. Freeway units would range from low density to high density as the road traverses the various other landscape units.

A landscape unit is a portion of the regional landscape and can be thought of as an outdoor room that exhibits a distinct visual character. A landscape unit often corresponds to a place or district that is commonly known among local viewers. The landscape units identified along the route of the proposed Project include:

- o Residential: Applies to residential households and areas zoned for residential land use.
- o Recreation/Open Space: Applies to parks, golf courses, other recreational/leisure-time facilities and undeveloped open areas.
- o Education: Applies to private and public educational institutions from preschool through college. Thirteen educational facilities have been identified within 0.2 miles of the proposed Project.
- o Industrial: Applies to manufacturing and storage facilities. Various trees, shrubs, and groundcovers are planted within the area and differ by owners. Due to the small viewership in this unit, no key views were selected to represent this unit.
- o Commercial/Retail: Applies to office building complexes (including government buildings), business parks with small office areas and larger back warehouses, individual retail stores, and small strip-center retail shopping areas.
- o Freeway: Applies to the two separate termini of the SR 710 at W Valley Boulevard in Alhambra and at California Boulevard in Pasadena.

SUMMARY OF EXISTING VISUAL RESOURCES AND VIEWER RESPONSE

According to the FHWA's impact assessment guidelines, visual resources are assessed by evaluating the visual character and visual quality, and viewer response is assessed by evaluating viewer sensitivity and exposure. Viewers with similar exposure and sensitivity can be grouped to determine an average response.

Visual character is descriptive and evaluative. It is based on defined attributes of visual aesthetic concepts such as form, line, color, etc. Changes in visual character are either compatible or incompatible with the existing visual character of a view. For example, if there is public preference for the established visual character of a regional landscape, and a Built Project would contrast that character, then changes in the visual character would be evaluated as poorly compatible.

Existing visual character by landscape unit:

- o The residential landscape unit consists of multiple communities in cities that are composed of long-term, single family and multi-family housing units. The form, line, color, techniques, and materials depend on each household's preferences of design features. While most residents do not see much of the existing SR 710, local residents play an important role in this visual impact assessment. This user group is expected to have the highest viewer sensitivity regarding the Build Alternatives.
- o The recreation landscape unit includes visual features such as topography, water elements, vegetation, land area, geology, and structures (depending on the type of recreational property). It hosts leisure and relaxation activities.

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- o The education landscape unit is represented by institutional facilities exhibited by the use of unified materials and amenities such as walkways, lighting, buildings, and site furniture. Open spaces and landscaping are incorporated in this landscape unit.
 - o The industrial unit consists of industrial buildings that are relatively larger in size and low-lying and where there are few viewers and few views that would be affected. Industrial and warehouse workers are considered the group that would be least impacted by visual changes to the Build Alternatives since the lack of windows in these buildings prevents the viewers from seeing the landscape unit outside of their buildings.
 - o The commercial/retail landscape unit includes commercial buildings which are generally located in business parks with small office areas. Office buildings are typically small- to medium-sized (including government office complexes such as the Los Angeles County Sheriff's Department and in Monterey Park). The retail buildings are typically small strip center style. These buildings are typically taller where viewers would view the Build Alternatives through windows and doors.
 - o The freeway landscape unit is located between the SR 2 and the I-5, I-10, I-210, and I-605. Freeway structures, signage, lighting, landscaping, and vehicles compose this unit which is located at the two ends of the project where the I-710 currently terminates at Valley Boulevard in Alhambra and the proposed northern portion of the SR 710 that would extend from the I-210 to California Boulevard in Pasadena.

Visual quality is evaluated by identifying the vividness, intactness and unity present in the viewshed. The FHWA states that this method should correlate with the publics' opinions of visual quality well enough to predict those judgments. This approach is particularly useful in highway planning because it does not presume that a highway project is necessarily aesthetically displeasing. This approach to evaluating visual quality would also help identify specific visual measures for reducing, avoiding, or concealing each adverse impact that may occur as a result of a project. The three criteria for evaluating visual quality are defined as follows:

Vividness (V) is the visual power or memorability of landscape components as they combine in distinctive visual patterns.

Intactness (I) is the visual integrity of the natural and man-built landscape and its freedom from encroaching elements. It can be present in well-kept urban and rural landscapes, as well as in natural settings.

Unity (U) is the visual coherence and compositional harmony of the landscape considered as a whole. It frequently attests to the careful design of individual man-made components in the landscape.

Viewers by landscape unit:

For the purposes of this assessment, the distance limit to assess the existing visual quality has been set at 0.2 miles within the SR 710 North Study area. This distance is within a reasonable range for viewers to see the freeway, light rail, and rapid bus transit.

- o **Residential Landscape Unit:** The overall visual quality ranges from moderately low to high based on the various neighborhoods throughout the different cities. The vividness is low because there are few memorable components. The visual intactness and compositional unity of the natural and built landscape as a whole is considered moderate.
- o **Recreation Landscape Unit:** The overall visual quality is moderate. The vividness consists of the overall memorability of the natural landscape and the skyline on the horizon. The

-
- intactness has minimal encroachments within the unit as there are only a few utility power lines. The overall balance contributes to a moderately high unity.
- **Education Landscape Unit:** The overall visual quality is low. Vividness is low due to the limited distinctive features. Intactness is low due to the encroachment of walls, light poles, fences and utility power lines from the background. Unity is low as there are several elements of fences, walls, playgrounds, buildings, and other facilities that do not create a harmonious pattern.
 - **Industrial Unit:** The overall visual quality is low. There are no memorable components that would contribute to the visual quality of the vividness. Above-ground utility and power lines, lightings, and other signage result in low intactness. The unity of the urban landscape is moderately low due to buildings, warehouses, cargo, vehicles, parking lots, and other facilities which are visually out of balance with each other.
 - **Commercial/Retail Landscape Unit:** The overall visual quality is low to moderately low. There are no memorable landscape components that would contribute to the visual quality of the vividness. Above-ground utility and power lines, lightings, and other signage result in moderately low intactness. The unity of the urban landscape is also moderately low due to buildings, vehicles, gas stations, parking lots, and other facilities.
 - **Freeway Landscape Unit:** The overall visual quality is moderately low. The vividness is low because there is minimal visual power of the landscape components. Intactness is low because highway posts, light poles, and also utility lines are major encroachments. The unity is moderate as the highway is the main component.

Average Viewer Groups by landscape unit:

Any person with a view to the Build Alternatives would be considered a viewer. Because it is not feasible to analyze each of these viewers, it is necessary to define viewers in selective groups in a representative manner. These viewer groups with visual access to the Build Alternatives are motorists, pedestrians, cyclists, residents, park and recreational facility users, employees and users of commercial and industrial facilities.

Pedestrians in Residential Landscape Units

This group of viewers is mainly occupants of residential units within view of a given Key View. Viewers in this category tend to be walking or standing in or around these units. From these standpoints, the viewers in this category would exhibit a high level of viewer response to the visual changes.

Drivers in Residential Landscape Units

This group is composed of drivers traveling along the residential streets. These viewers would be considered to have a moderate response to visual changes.

Pedestrians in Recreation/Open Space Landscape Units

Viewers in this category are at the recreational facilities and open spaces with the expectation of experiencing a comfortable and enjoyable environment. The viewers in these areas would have a high viewer response.

Pedestrians in Educational Landscape Units

This set of viewers would be focused on activities related to studies and/or teaching. Viewers within educational facilities would possess a moderately high responses to changes in views.

Pedestrians and Motorists in Industrial Landscape Units

Viewers located in these areas would be focused on going to and from the businesses. This group of viewers would be considered to have a low response to visual changes.

Pedestrians in Commercial/Retail Landscape Units

Viewers located in these areas are focused on going to and from the businesses. This group of viewers would be considered to have a moderate to moderately high response to visual changes.

Drivers in Commercial/Retail Landscape Units

Viewers in this category have similar views of the surrounding visual elements to the pedestrians in the same locations. The viewer response to visual changes in this category would be considered moderate.

Drivers in Freeway Landscape Units

This group consists of drivers traveling along the freeway. These viewers would be considered to have a low to moderately low response to visual changes.

Methods of predicting viewer response

Viewer response is composed of two elements: viewer sensitivity and viewer exposure. These elements combine to form a method of predicting how the public might react to visual changes brought about by a highway similar to the proposed Project.

- o **Viewer sensitivity** represents both the viewers' concern for scenic quality and the viewers' response to change in the visual resources that make up the view. Viewers' local values, activity while viewing, and awareness of the view are used to determine viewer sensitivity. Local values and goals may confer visual importance on landscape components and areas that would otherwise appear unexceptional in a visual resource analysis. Even when the existing appearance of a project site is uninspiring, a community may still object to projects that fall short of its visual goals. Analysts can learn about these special resources and community aspirations for visual quality through citizen participation procedures, as well as from local publications and planning documents. Viewers' activities may prevent them from focusing on changes to a nearby view, or it may be their reason for visiting, such as hikers travelling to a scenic overlook. If a view is narrow, viewers will be much more aware of changes than if the view is wide.
- o **Viewer exposure** is typically assessed by measuring the number of viewers exposed to the resource change, duration of their view, speed at which the viewer moves, and location of the viewer. High viewer exposure heightens the importance of early consideration of design, art, and architecture and their roles in managing the visual resource effects of a project.

Existing viewer sensitivity

Viewer sensitivity refers to the degree to which people respond to what they see. Viewer sensitivity does not imply one's positive or negative reaction to the proposed change.

- o **Travelers:** This viewer group is likely to be users such as commuters, passengers, school bus drivers, truck drivers, motorcyclists, and tourists. Among these sub-groups, passengers have higher viewer sensitivity since they are not required to focus their views on the traffic ahead of them. All individual views on the Build Alternatives typically have shorter durations due to the constant movement of the viewers. View duration would be different based on the time, weather, season, and traffic conditions. Travelers also have differing levels of local values. Some may be simply passing through an area and not concerned with the local visual resources, whereas others may live or work nearby and therefore still have high local values.
- o **Local Communities:** This viewer group involves a larger variety of viewers. They vary from residents, pedestrians on local streets, users on bicycle trails and other recreational facilities, and employees and visitors in commercial, office, retail, and industrial. All individual views of the Build Alternatives in this viewer group are typically longer in duration due to the slower speeds while walking on local streets and the longer length of activities in which people engage. View duration would be different based on the time, weather, season, and traffic conditions. These viewers also would likely have higher local values than travelers who may not be attached to the area.

SUMMARY OF VISUAL IMPACT ASSESSMENT

The visual impacts of the proposed Project are determined by assessing the visual resource change due to the Build Alternatives and predicting viewer response to that change. Visual resource change is the average of the change in visual character and change in visual quality. The first step in determining visual resource change is to assess the compatibility of the Build Alternatives with the visual character of the existing landscape. The second step is to compare the visual quality of the existing resources with projected visual quality after the project is constructed. The viewer response to Build Alternatives change is the average of viewer exposure and viewer sensitivity to the Build Alternatives as determined in the preceding section. The resulting level of visual impact is determined by combining the severity of resource change with the degree to which viewers perceive the visual quality changes.

Visual Impact Evaluation

The visual resource change is based on the changes from the existing conditions to the conceptual ideas of what the Build Alternatives' views would look like with the proposed changes (based upon Caltrans' design standards). A positive number represents a potential improvement in the visual setting with the implementation of the particular Build Alternative, and a negative number represents a potential decline in the visual character. Viewer response is based on the average viewer's sensitivity and exposure. If a resource change was negative, the viewer response was described as negative during the impact assessment. Viewers would respond to positive resource change as well. Impacts resulting from negative resource change were described as negative, and impacts from positive resource changes were described as positive for the purpose of distinguishing impacts with higher priority for neutralization measures.

The visual simulations in this study apply conceptual designs of the Light Rail Transit (LRT), Bus Rapid Transit (BRT), and Freeway Tunnel (FWY) Build Alternatives to the 30 Key Views to show the anticipated post-project features, visual characteristics, and surrounding conditions. Each Key View was chosen to represent a particular landscape unit and in a location which showed a high-profile view that an end-user would frequently encounter. Overall maps of the Key View locations are shown in Figures 8-1 (BRT), 8-2 (LRT), and 8-3 (Freeway Tunnel). Figures 8-4, 8-5, and 8-6 (BRT, LRT, and Freeway Tunnel, respectively) illustrate the locations of the various landscape units along the proposed SR 710 route.

Table 8-1, "Visual Quality for Existing Conditions and for Proposed Build Alternatives," provides the visual quality ratings of the Key Views, including points of view from SR 710 and of those people with a view of the SR 710. The overall Visual Quality rating from 1.0 to 7.0 (or very low with poor experience to very high with good experience) is an average of the three criteria ratings: vividness, intactness, and unity.

Visual resource change averages change in visual quality, measured on a scale from -7.0 to 7.0, and visual character compatibility, measured on a scale from -3.0 to 3.0. Therefore, resource change ratings from -5.0 to 5.0 are possible. Very high numbers on these scales would indicate very high resource change. Resource changes ranged from -2.0 to 1.6, moderately low negative change to moderately high positive change. Viewer response was measured on a scale from 0, no response to 7, very high response. Response was only recorded as negative if a visual resource change was negative. Viewer responses ranged from 2.0, low to 5.5, high. The overall visual impact rating from -6.0 to 6.0, high negative impact to high positive impact, is an average of the viewer response and visual resource change. Negative impact change was assigned when a visual resource change was negative. Impacts ranged from -3.0 to 3.3, moderate negative change to moderate positive change.

Visual Impact by Alternative

Visual impacts have been assessed for the No Build and Build Alternatives. There would be short-term as well as long-term negative impacts with the construction of all Build Alternatives that contribute adverse visual impacts to the existing views for viewers and/or user groups within the SR-710 study area.

Impacts associated with the TSM/TDM alternative would be very low. This alternative involves traffic studies to modify traffic signal cycles to improve traffic flow and the addition of a length of a few traffic lanes at existing ground level. The results of this alternative would likely be programming changes for the synchronization of existing traffic lights and would most likely not involve the addition or removal of utility equipment; therefore causing minimal physical changes to the existing environment of and little visible impact on the various Key Views of the project.

The BRT alternative is based mainly on the routing of bus systems and placement of bus stops and signage. It has been determined that, based on the visual assessment criteria, the BRT would result in moderately low to moderate positive visual impacts. Bus stops would be treated with architectural features to blend them into the surrounding communities.

The LRT Alternative would have the most substantial visual impact since the majority of the alignment in East Los Angeles, Monterey Park, and Alhambra is above ground and visible to the communities. The visual impact ranged from -3.0 to 3.3, moderate negative impact to moderate positive impact. Some measures have been incorporated directly into the proposed designs of the structures to avoid or minimize potential visual effects and other measures have been identified to minimize and/or conceal potential visual effects.

The Freeway Tunnel Alternative would have a low to moderate visual impact since the majority of the alignment is below ground and not visible to many residential communities. In addition, several above ground portions expand existing freeway where the visual quality is already lower. The visual impact ranged from -2.4 to 3.3, moderately low negative impact to moderate positive impact. Some measures have been incorporated directly into the proposed designs of the structures to avoid or minimize potential visual effects and other measures have been identified to minimize and/or conceal potential visual effects.

It is anticipated that the construction activities of the LRT and Freeway Tunnel Alternative would include numerous heavy construction including the expected use of Tunnel Boring Machines (TBM), staging areas, materials storage areas, the construction sites themselves and material movement corridors. Many, if not all of these activities take place at or below grade making these activities create lesser visual impacts from the surrounding areas at the same view plane. If seen from a higher elevation, visual impacts would be greater; and if seen from a lower elevation, such visual impacts would be lesser.

While these construction activities may create other environmental impacts such as noise and dust pollution, all of the visual impacts may be lessened by various screening techniques, including vegetative screening. Temporary landforming (such as temporary berms with landscape planting) to filter construction views would work toward lessening visual impacts. Temporary structural screening techniques may also be used in concert with vegetation. These could include the use of mesh structures with vines. However, it should be noted that the implementation of these screening techniques may themselves create their own visual impacts. These will be investigated in subsequent phases of the project development.

Since the construction of the freeway tunnel is anticipated to take close to five years to complete, treatment of any adverse visual impacts created during the tunnel construction should also be considered. Temporary or permanent planting of trees, creation of berms, and even construction of temporary screening walls could be viable options to screen the tunnel construction.

Light, Shade, Glare and Shadow

Viewers within the study area would experience very little increased night lighting due to the majority of the proposed roadway being located in a valley. The effects of new lighting can be lessened to some degree with the utilization of light and glare shielding devices attached to the light fixtures.

Vehicle headlight glare from all lanes is expected to be minimized by the natural slopes, in some cases by screen walls, and by distance of the viewer from safety lighting and lights from vehicles.

During hours where the sun is low to the horizon and during the winter solar declination seasons, the elevated LRT would create some shade and/or shadows along the neighborhoods west of Mednik Avenue in East Los Angeles and though the southwest corner of Monterey Park. However, the impact would be minimal due the narrow width and thin profile of the LRT.

SUMMARY OF PROJECT VISUAL IMPACT

Key view analysis results are representative of visual impacts for similar areas throughout the project area. Areas with negative resource change would be more likely to illicit a negative response, so the visual impact and viewer response for areas with negative resource change was recorded as negative. Based on the key view analysis, views along the project area would likely experience a range from low to moderate visual impact for any Alternative. Figure 9-1 summarizes the visual impact rating for key views which is derived from viewer response, figure 9-2, and visual resource change, figure 9-3. Visual impacts could be either negative or positive based on visual resource change results. The resource change in key views ranged from -2.0 to 1.5, from moderately low negative to moderately low positive change. The moderate impact in residential units is in part due to the viewer groups being very actively engaged and involved in the home environment.

Short term visual impacts would occur to viewer groups during the construction period. Those effects would include views of demolition of existing structures; removal of existing mature vegetation; grading of cut-fill slopes; construction of tunnel, bridge, and road structures; construction vehicles; construction staging areas; temporary roadside barriers; and construction lighting and signage. The adverse effects of vegetation clearing would gradually cease over time as landscaping for the SR 710 North Study matures.

Permanent Impact by Alternative

The TSM/TDM Build Alternative mainly involves minor improvements to existing roads and intersections without substantive changes in physical facilities or views to/from those improvements. As a result, there

would only be minor physical changes or visible impacts to the environment and to the Key Views. In addition, due to the low-profile (ground-level) nature of these improvements and the low perspective of potential viewers, the TSM/TDM Alternative without noise barriers would result in no adverse permanent visual impacts. For proposed noise barriers for the TSM/TDM Alternative, visual impact would range from low to high impact. Visual impact would vary depending on the wall location, viewers affected, and barrier height. Taller walls will generally have a higher visual impact.

Permanent impacts to the visual resources resulting from the LRT Alternative are described within the evaluation of Key Views 3-LRT through 20-LRT. The height of the noise barriers range from 4.0 to 9.6 ft. The barriers will be placed along the edge of the track. The visual impact to these key view areas would range from low to moderate.

The operation of the BRT Alternative would not result in permanent adverse visual impacts except for the addition of the noise barriers which would cause moderate to moderately high visual impact for several local residences and passers-by on the streets.

Permanent impacts to the visual resources resulting from the Freeway Tunnel Alternative are described within the evaluation of Key Views 21-FWY through 30-FWY. Visual impacts to key views ranged from (-2.4) to 3.3, moderately low negative impact based on negative resource change to moderate positive impact based on positive resource change. Visual impacts caused by noise barriers would range from moderate to high depending on the wall location, height, and affected viewer group.

SUMMARY OF VISUAL AVOIDANCE, MINIMIZATION, AND CONCEALMENT MEASURES

Caltrans and the FHWA mandate that a qualitative/aesthetic approach should be taken to avoid, minimize and/or conceal visual quality loss associated with the Build Alternatives. This approach fulfills the letter and the spirit of FHWA requirements as it addresses the actual cumulative loss of visual quality that would occur within the viewshed of the Build Alternatives. It also constitutes visual measures that can more readily generate public acceptance of the proposed Project.

The visual impacts of a project are determined by assessing the existing visual resources, the change in visual resources and visual quality due to the built project, and predicting viewer response to that change. Determining visual resource change involves assessing the visual compatibility of the Build Alternatives with existing resources. The viewer response is the average of the viewer's exposure and viewer's sensitivity to the project. The resulting level of visual impact is determined by combining the severity of resource change with the degree to which people are likely to be affected by the change.

The following are descriptions of the levels of visual impact measures and their durations to achieve the required level of avoidance, minimization, or concealment.

No – No adverse change to the existing visual resource or improved visual change to the existing visual resource. Does not require visual measures.

Low – Minor adverse change to the existing visual resource, with low viewer response to change in the visual environment. May or may not require visual measures.

Moderately Low - Moderate to moderately low adverse change to the existing visual resource, with low viewer response, or low adverse change with moderate to moderately low viewer response to change in the visual environment. Architectural aesthetic treatments or landscaping could neutralize the impacts upon project completion or within 3 years of finished construction.

Moderate – Moderate adverse change to the visual resource with moderate viewer response. Impact can be neutralized within five years using standard practices.

Moderately High – Moderate adverse visual resource change with high viewer response or high adverse visual resource change with moderate viewer response. Extraordinary visual measures may be required. Landscape treatment required will generally take longer than five years to fully neutralize.

High – A high level of adverse change to the resource or a high level of viewer response to visual change such that architectural design and landscape treatment cannot neutralize the impacts. Viewer response level is high. An alternative project design may be required to avoid highly adverse impacts.

The following table enumerates the breakdown of the Build Alternatives and the associated level of visual measures for the Key Views. For example, for the eighteen Key Views for the LRT Alternative, eight Key Views do not require any visual measures, one Key View requires low visual measures, four Key Views require moderately low visual measures, and five Key Views require moderate visual measures.

Level of Visual Measures:	BRT Alternative						LRT Alternative						Freeway Tunnel Alternative					
	No	Low	Moderately Low	Moderate	Moderately High	High	No	Low	Moderately Low	Moderate	Moderately High	High	No	Low	Moderately Low	Moderate	Moderately High	High
Key View Totals:	2	0	0	0	0	0	8	1	4	5	0	0	7	1	2	0	0	0

Source: Tatsumi and Partners, Inc. (2013)

Conceptually, the neutralization of negative visual impacts can be obtained by reversing the elements which resulted in a lower rating of character, vividness, intactness and/or unity. Vividness impacts are reversed by emphasizing existing memorable features of the view or adding new visual accents. Lower intactness ratings are minimized by screening or relocating man-made elements which encroach into the view. And unity of the view is improved by reinforcing the flow or balance of the view by visual masses or adding repetition into the view.

Basic Concepts of Visual Impact Measures

This section describes the basic concepts to avoid, minimize and/or conceal visual impacts relative to the criteria defined by the FHWA which in turn serves as the basis for the all impact assessments. In views where the ratings of any visual criteria is lowered in the Build Alternatives (creating negative visual impacts), the following addresses concepts which could be used to lessen the impacts of a specific criteria.

Vividness

- Add a single visual element into the Key View which would serve as the visual focal point – Example: Introduce a single specimen tree or a signature architectural feature in the Key View.
- Add screening to diminish distracting visual elements and increase the perception/value of another visual element – Example: Add landscaping and/or architectural components to screen distracting views of overhead utility lines which would increase the memorableness of an existing visual highlight.
- Add visual elements to lend additional focus to an existing accent visual element - Example: Add trees on both sides of the Key View to visually frame and emphasize an existing visual highlight in the middle of the view.

Intactness

-
- Add screening such as landscaping or architectural features to diminish the visual value of the objects which are intruding into the Key View – Example: Screen visually intruding power lines and support structures with landscaping to keep the view clear of distractions.
 - Underground or relocate the encroaching elements – Example: If utility lines are visible in the Key View, consider relocating these lines or placing them underground.
 - Disguise the intruding objects with architectural features, textures and/or colors – Example: If light fixtures or traffic signals are encroaching into the Key View, add architectural features onto these fixtures/signals which would allow these features to blend into the overall visual character of the Key View.

Unity

- Add screening such as landscaping or architectural features to minimize visual elements which distract from the visual flow of the Key View – Example: In the instance where the visual flow of the Key View is interrupted by a new structure or building, add screening elements to minimize the features of the new structures and maintain the overall visual flow.
- Emphasize visual elements which help balance the view into major masses of visual space – Example: In cases where new construction breaks the visual balance of the Key View, add other visual elements such as landscaping to minimize the impact of the new construction and maintain the balance of the view.
- Add repetitive elements into the view to introduce or strengthen visual patterns or rhymes of a Key View – Example: For Key Views which result in imbalance or fractured view masses, add repetitive elements such as bollards, street trees, flag poles or other features to visually tie the view together.

Character

- Apply aesthetic design treatments to architectural features to make the project more compatible with the existing visual character based on the existing form, line, color, scale, dominance, diversity, and continuity of the project area.
- Add visually compatible landscaping to soften and obscure visually incompatible features.
- In high impact areas with scale, continuity, and dominance incompatibility, redesign the project, if feasible.

Viewer Response

- Use public outreach and involvement strategies that address viewers' concerns, incorporate viewers' feedback into project design, and educate about the benefits of the project.
- High impact projects could be redesigned, if feasible, to relocate the project areas so that fewer viewers are impacted, views are less narrowly focused toward the project, and various viewer activities distract from the view and shorten viewer duration.

The above concepts may be implemented in a number of ways as noted in the examples. Specific implementation techniques may involve some of the following:

o Walls with Aesthetic Treatments

Walls protect surrounding neighborhoods from the traffic noise and reduce noise levels in neighborhoods. The design of walls will follow the standards from the Highway Design Manual Standards and will take into consideration gathered community input. Aesthetic enhancements for the soundwalls should be incorporated into the final design of the proposed SR 710 North Project. Possible enhancements may include, but would not be limited to, using graphic patterns and colors based on input gathered from the local community, stakeholders, and Caltrans.

- o **Built Structures**

Project structures, such as buildings, columns, retaining walls, and tunnels, should be designed to either blend with or enhance the surrounding area. Design considerations such as placement, orientation, shape of structure, color and type of materials used, and addition of decorative features should be employed.

- o **Landscaping**

Planting vines on the walls or creating berms and planting trees for screening can be another form of neutralization.

Low impacts could be addressed with a few vines or shrubs and/or trees. Depending on the area, it may or may not include a soundwall.

Moderate impacts could be addressed with a higher concentration of vines or shrubs and trees. The area may or may not include a soundwall with aesthetic treatment.

Moderate impacts could be addressed with a high concentration of vines and larger shrubs and trees. The area may or may not include a soundwall.

Moderately high impacts might require a berm planted with ground cover, shrubs and trees. The area may or may not include a soundwall.

High mitigation, as mentioned earlier, cannot be adequately addressed with architectural design or landscape planting. Redesign may need to be considered or allowances may need to be made for accepting a lower visual quality based upon the greater needs of the built project and the limited alternatives available to construct it and apply adequate visual measures.

Aesthetics incorporating and respecting the varied local architectural traditions within the communities affected by the proposed Build Alternatives are important to the communities. While keeping the communities' preferences in mind, high aesthetic values would be carried equally throughout the alignments of all Build Alternatives. Attention to how aesthetic and landscape treatments are applied should also be given based on the level of adverse visual impact at each location – the higher the adverse impact, the greater the need to include avoidance, minimization and concealment measures. These would be implemented in the form of a corridor-wide aesthetics master plan developed in subsequent phases of this project. This process would include a partnership between the communities along the entire length of the project as well as METRO, Caltrans and other stakeholders in the form of an advisory group. Input from this group would include not be limited to the desired visual character, spirit or community culture of the various communities and historic values of the individual communities.

SUMMARY OF ARCHITECTURAL DESIGN CONSIDERATIONS

The project design team has developed conceptual designs for the visible supporting structures of the BRT, LRT, and Freeway Build Alternatives. It has been their goal to provide design features that avoid and/or minimize the visual impacts of the built structures.

BRT Alternative

Several considerations were used in the development of the proposed design options for the BRT stop stations:

- o Element of continuity.
 - o Metro branding.
 - o Existing foot traffic circulations.
 - o Existing traffic intersection.
 - o Amount of ridership at each station.
 - o Safety concerns.
-

LRT Alternative

The concept designs for the LRT Alternative were developed to address visual impacts of the following proposed LRT improvements:

- o Elevated rail supporting structure and catenary wires and supporting poles.
- o Aerial/Surface Stations.
- o Train maintenance and storage yard.
- o Canopy at portal to Underground stations.
- o Traction power substation structure.
- o Parking facilities.

The following design considerations were used to develop the concepts for the LRT station at 3rd and Mednik:

- Create foot traffic connection between the existing at grade station to the new aerial station with enhanced decorative, color sidewalk streetscape and landscaping, outdoor dining area and retail stores.
- Design Landscape to match the existing landscape for East LA Civic Center on the eastside of the street.
- Create a median island with palm trees to divert the height attention to the middle of the street.
- Redevelop shopping mall to serve the community.
- Create horizontal elements to lower down the height impact of the station.
- Vertical landscaping to screen out the station from residential area

The underground station at Fillmore features a translucent canopy structure at the portal with added Palm trees and landscaping.

Design features for the train maintenance and storage yard to be located at Valley Boulevard include:

- Lower yard elevation to below residential property on the east, view from residential area will not be blocked by the yard.
- Landscape buffering between yard and residential area.
- Widen the yard bridge over Valley Boulevard to block out visibility to the yard from Valley Boulevard. Provide planting area and/or green screen on the edge of the bridge.

Freeway Tunnel Alternative

The design of the Freeway Tunnel Alternative includes these design considerations:

- o Entrance and exit to the portal at north and south end.
- o Free standing and combined structure options for exhaust stack at north and south end.
- o Operation and Maintenance Center (OMC building) at north and south end.

OMC Buildings to support and operate the tunnel and also include emergency response, monitoring and maintenance operations of the tunnel can be located directly above the tunnel's exhaust fan system or be combined with the exhaust stack.

II. PURPOSE OF STUDY

The purpose of this VIA is to describe the appearance of the visible components of the proposed Project, to define the visual characteristics of the proposed Project's study area, identify and evaluate existing visual settings, resources, and viewer groups, to evaluate potential Build Alternatives' visibility within the study area, to identify and evaluate all key views selected for this VIA, and to identify and discuss any measures that would be implemented to minimize any potential visual impact based on the overall impact. This study also is to assess the visual impacts of the proposed Project and to propose measures to avoid, minimize and/or conceal any adverse visual impacts associated with the Build Alternatives on the surrounding visual environment.

Information from this Visual Impact Assessment (VIA) is being included in the visual/aesthetics section of the Environment Impact Report/Environmental Impact Statement (EIR/EIS). Impacts have been evaluated by a registered landscape architect for the purpose stated in the previous paragraph. This report was prepared under the guidance of a California registered landscape architect experienced in preparation of Visual Impact Assessments and is written from a landscape architectural point of view. The term "landscape" refers to appearance of a parcel of land, which includes visual factors such as the shapes, textures, and colors that may be distinguishable from another location. Landscape impacts occur when there is change in the character or qualities of the landscape that contributes to a permanent result of a development. Change can have a direct visual impact upon specific landscape elements and on how people perceive the view of the landscape through either intrusion or obstruction of the landscape elements.

III. PROJECT DESCRIPTION

Introduction

The California Department of Transportation (Caltrans), in cooperation with the Los Angeles County Metropolitan Transportation Authority (Metro) proposes transportation improvements to improve mobility and relieve congestion in the area between State Route 2 (SR 2) and Interstates 5, 10, 210 and 605 (I-5, I-10, I-210, and I-605, respectively) in east/northeast Los Angeles and the western San Gabriel Valley. The study area for the State Route 710 (SR 710) North Study as depicted on Figure 3-1 is approximately 100 square miles and generally bounded by I-210 on the north, I-605 on the east, I-10 on the south, and I-5 and SR 2 on the west. Caltrans is the Lead Agency under the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA).

Purpose of the Project

Due to the lack of continuous north-south transportation facilities in the study area, there is congestion on freeways, cut-through traffic that affects local streets, and low-frequency transit operations in the study area. Therefore, the following project purpose has been established.

The purpose of the proposed action is to effectively and efficiently accommodate regional and local north-south travel demands in the study area of the western San Gabriel Valley and east/northeast Los Angeles, including the following considerations:

- Improve efficiency of the existing regional freeway and transit networks.
- Reduce congestion on local arterials adversely affected due to accommodating regional traffic volumes.
- Minimize environmental impacts related to mobile sources.

Need for the Project

The study area is centrally located within the extended urbanized area of Southern California. With few exceptions, the area from Santa Clarita in the north to San Clemente in the south (a distance of approximately 90 miles [mi]) is continuously urbanized. Physical features such as the San Gabriel Mountains and Angeles National Forest on the north, and the Puente Hills and Cleveland National Forest on the south, have concentrated urban activity between the Pacific Ocean and these physical constraints. This urbanized area functions as a single social and economic region that is identified by the Census Bureau as the Los Angeles-Long Beach-Santa Ana Metropolitan Statistical Area (MSA).

There are seven major east-west freeway routes:

- State Route 118 (SR 118)
- United States Route 101 (US-101)/State Route 134 (SR 134)/I-210
- I-10
- State Route 60 (SR 60)
- Interstate 105 (I-105)
- State Route 91 (SR 91)
- State Route 22 (SR 22)

There are seven major north-south freeway routes:

- Interstate 405 (I-405)
- US-101/State Route 170 (SR 170)
- I-5
- State Route 110 (SR 110)
- Interstate 710 (I-710)/ State Route 710 (SR 710)
- I-605
- State Route 57 (SR 57)

All of these major routes are located in the central portion of the Los Angeles-Long Beach-Santa Ana MSA. Of the seven north-south routes, four are located partially within the study area (I-5, SR 110, I-710, and I-605), two of which (SR 110 and I-710) terminate within the study area without connecting to another freeway. As a result, a substantial amount of north-south regional travel demand is concentrated on a few freeways, or diverted to local streets within the study area. This effect is exacerbated by the overall southwest-to-northeast orientation of I-605, which makes it an unappealing route for traffic between the southern part of the region and the urbanized areas to the northwest in the San Fernando Valley, the Santa Clarita Valley, and the Arroyo-Verdugo region.

The lack of continuous north-south transportation facilities in the study area has the following consequences, which have been identified as the elements of need for the project:

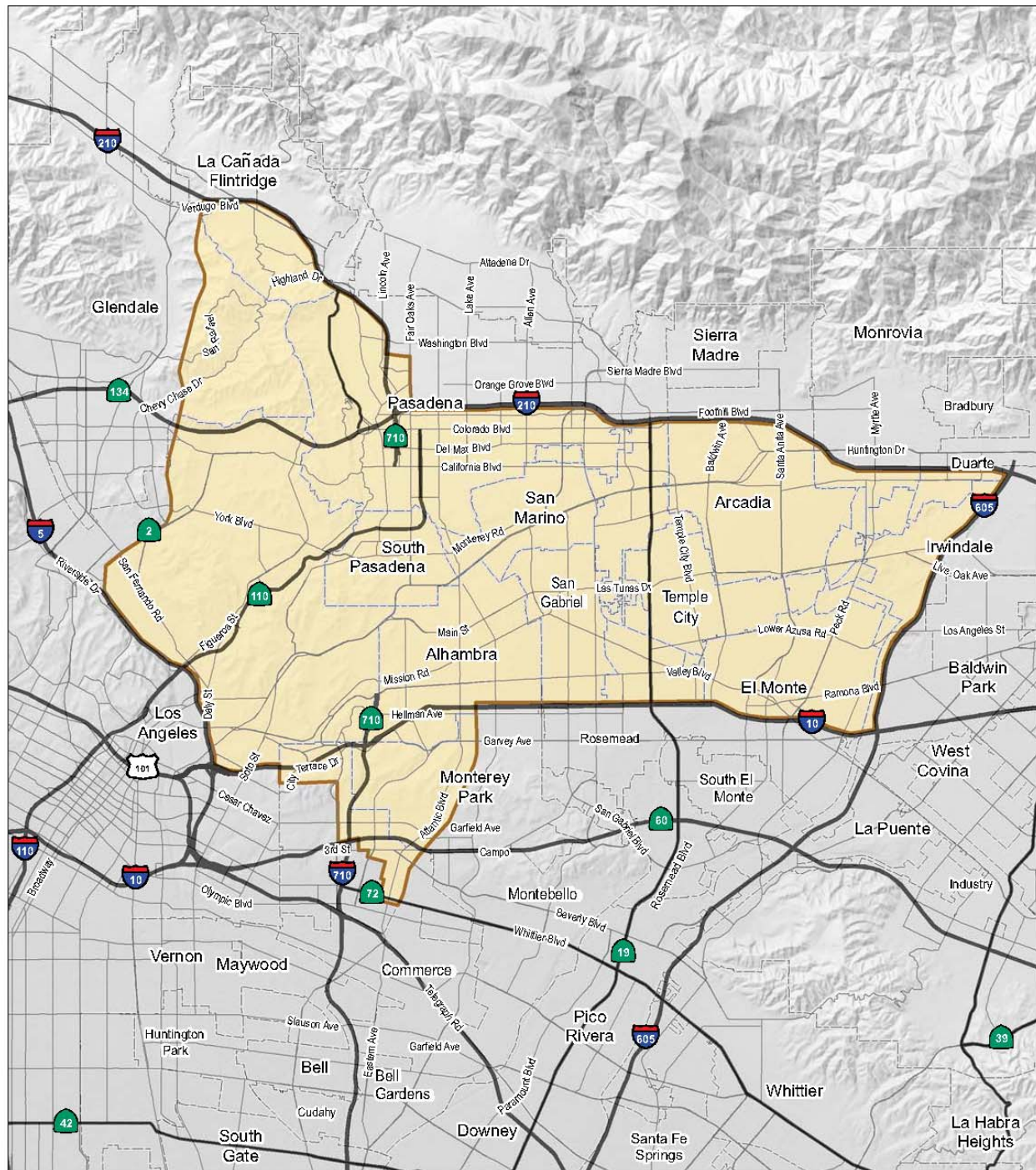
- Degradation of the overall efficiency of the larger regional transportation system
- Congestion on freeways in the study area
- Congestion on the local streets in the study area
- Poor transit operations within the study area

Alternatives

The proposed alternatives include the No Build Alternative, the Transportation System Management/ Transportation Demand Management (TSM/TDM) Alternative, the Bus Rapid Transit (BRT) Alternative, the Light Rail Transit (LRT) Alternative, and the Freeway Tunnel Alternative. These alternatives are each discussed below.

No Build Alternative

The No Build Alternative includes projects/planned improvements through 2035 that are contained in the Federal Transportation Improvement Program (FTIP), as listed in the Southern California Association of Governments (SCAG) 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Measure R and the funded portion of Metro's 2009 Long Range Transportation Plan (LRTP). The No Build Alternative does not include any planned improvements to the SR 710 Corridor. Figure 3-2 illustrates the projects in the No Build Alternative.



LEGEND

SR 710 North Study Area

FIGURE 3-1



SOURCE: ESRI (2008); LSA (2013)

I:\CHM1105\GP&N\Project Location.cdr (10/27/14)

SR 710 North Study
Project Location

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

Transportation System Management/Transportation Demand Management (TSM/TDM) Alternative

The TSM/TDM Alternative consists of strategies and improvements to increase efficiency and capacity for all modes in the transportation system with lower capital cost investments and/or lower potential impacts. The TSM/TDM Alternative is designed to maximize the efficiency of the existing transportation system by improving capacity and reducing the effects of bottlenecks and chokepoints. Components of the TSM/TDM Alternative are shown on Figure 3-3. TSM strategies increase the efficiency of existing facilities (i.e., TSM strategies are actions that increase the number of vehicle trips which a facility can carry without increasing the number of through lanes).

Transportation System Management

TSM strategies include Intelligent Transportation Systems (ITS), local street and intersection improvements, and Active Traffic Management (ATM):

- **ITS Improvements:** ITS improvements include traffic signal upgrades, synchronization and transit prioritization, arterial changeable message signs (CMS), and arterial video and speed data collection systems. The TSM/TDM Alternative includes signal optimization on corridors with signal coordination hardware already installed by Metro's Traffic Signal Synchronization Program (TSSP). These corridors include Del Mar Avenue, Rosemead Boulevard, Temple City Boulevard, Santa Anita Avenue, Fair Oaks Avenue, Fremont Avenue, and Peck Road. The only remaining major north-south corridor in the San Gabriel Valley in which TSSP has not been implemented is Garfield Avenue; therefore, TSSP on this corridor is included in the TSM/TDM Alternative. The locations are shown in Table 3-1. The following provide a further explanation of the ITS elements listed above:
 - Traffic signal upgrades include turn arrows, vehicle and/or bicycle detection, pedestrian countdown timers, incorporation into regional management traffic center for real-time monitoring of traffic and updating of signal timing.
 - Synchronization is accomplished through signal coordination to optimize travel times and reduce delay.
 - Transit signal prioritization includes adjusting signal times for transit vehicles to optimize travel times for public transit riders.
 - Arterial CMS are used to alert travelers about unusual road conditions, special event traffic, accident detours, and other incidents.
 - Video and speed data collection includes cameras and other vehicle detection systems that are connected to a central monitoring location, allowing for faster detection and response to traffic incidents and other unusual traffic conditions.
- **Local Street and Intersection Improvements:** The local street and intersection improvements are within the Cities of Los Angeles, Pasadena, South Pasadena, Alhambra, San Gabriel, Rosemead, and San Marino. Table 3-2 outlines the location of the proposed improvements to local streets, intersections, and freeway ramps as well as two new local roadways.
 - **Active Traffic Management:** ATM technology and strategies are also included in the TSM/TDM Alternative. The major elements of ATM are arterial speed data collection and CMS. Data on arterial speeds would be collected and distributed through Los Angeles County's Information Exchange Network (IEN). Many technologies are available for speed data collection or the data could be purchased from a third-party provider. Travel time data collected through this effort could be provided to navigation system providers for distribution to the traveling public. In addition, arterial CMS or "trailblazer" message signs would be installed at key locations to make travel time and other traffic data available to the public.

Transportation Demand Management

TDM strategies focus on regional means of reducing the number of vehicle trips and vehicle miles traveled as well as increasing vehicle occupancy. TDM strategies facilitate higher vehicle occupancy or reduce traffic congestion by expanding the traveler's transportation options in terms of travel method, travel time, travel route, travel costs, and the quality and convenience of the travel experience. The TDM strategies include reducing the demand for travel during peak periods, reducing the use of motor vehicles, shifting the use of motor vehicles to uncongested times of the day, encouraging rideshare and transit use, eliminating trips (i.e., telecommuting), and improved transportation options. The TDM strategies include expanded bus service, bus service improvements, and bicycle improvements:

- o **Expanded Bus Service and Bus Service Improvements:** Transit service improvements included in the TSM/TDM Alternative are summarized in Tables 3-3 and 3-4 and illustrated on Figure 3-3. The transit service improvements enhance bus headways between 10 and 30 minutes during the peak hour and 15 to 60 minutes during the off-peak period. Bus headways are the amount of time between consecutive bus trips (traveling in the same direction) on the bus route. Some of the bus service enhancements almost double existing bus service.
- o **Bicycle Facility Improvements:** The bicycle facility improvements include on-street Class III bicycle facilities that support access to transit facilities through the study area and expansion of bicycle parking facilities at existing Metro Gold Line stations. Proposed bicycle facility improvements are outlined in Table 3-4.

Bus Rapid Transit (BRT) Alternative

The BRT Alternative would provide high-speed, high-frequency bus service through a combination of new, dedicated, and existing bus lanes, and mixed-flow traffic lanes to key destinations between East Los Angeles and Pasadena. The proposed route length is approximately 12 mi. Figure 3-4 illustrates the BRT Alternative.

The BRT Alternative includes the BRT trunk line arterial street and station improvements, frequent bus service, new bus feeder services, and enhanced connecting bus services. BRT includes bus enhancements identified in the TSM/TDM Alternative, except for improvements to Route 762.

Buses are expected to operate every 10 minutes during peak hours and every 20 minutes during off-peak hours. The BRT service would generally replace, within the study area, the existing Metro Route 762 service. The 12 mi route would begin at Atlantic Boulevard and Whittier Boulevard to the south, follow Atlantic Boulevard, Huntington Drive, Fair Oaks Avenue, Del Mar Boulevard, and end with a terminal loop in Pasadena to the north. Buses operating in the corridor would be given transit signal priority from a baseline transit signal priority project that will be implemented separately by Metro.

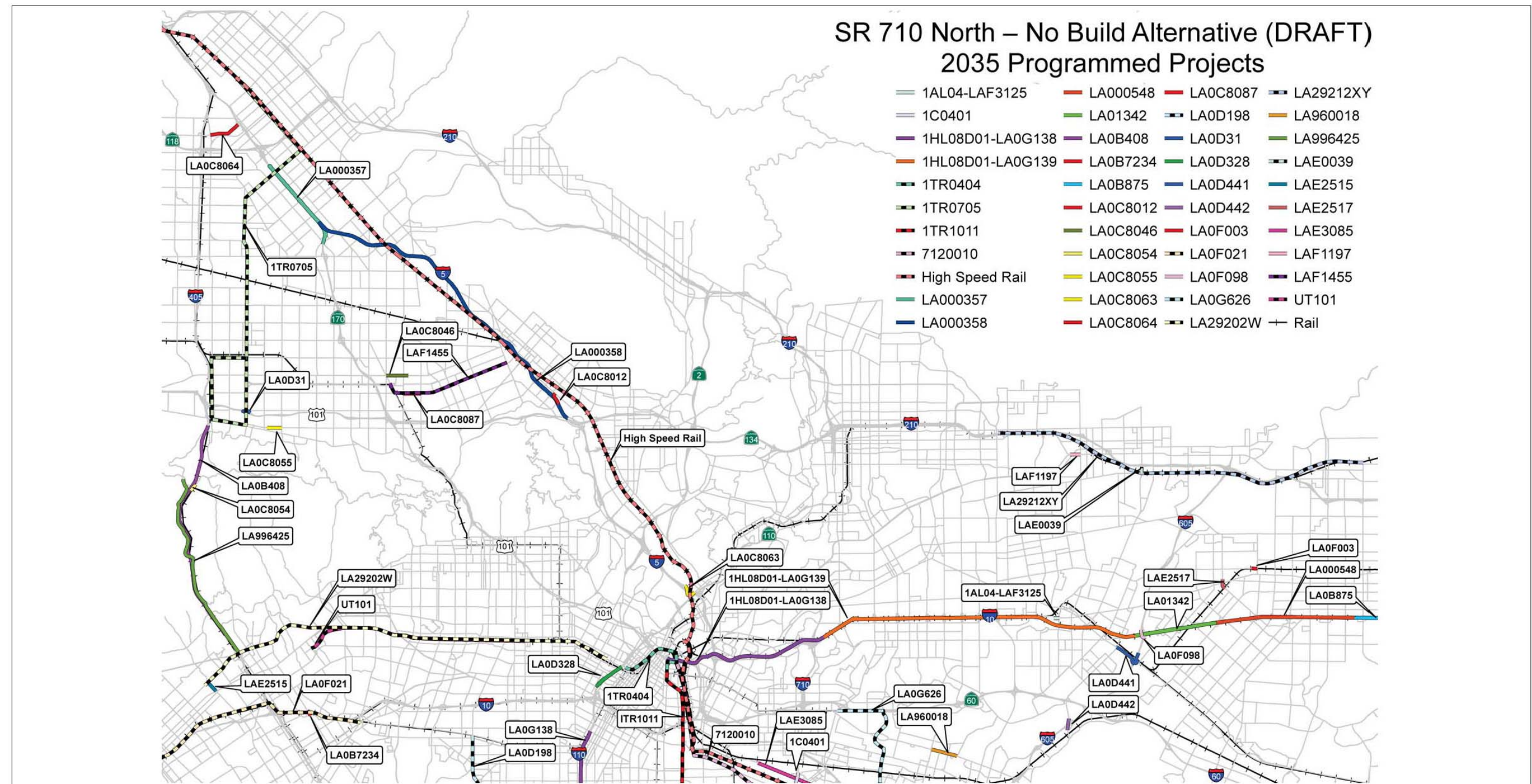


FIGURE 3-2



NOT TO SCALE

SOURCE: CH2M HILL (2013)

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SR 710 North Study
No Build Alternative

07-LA-710 (SR 710)
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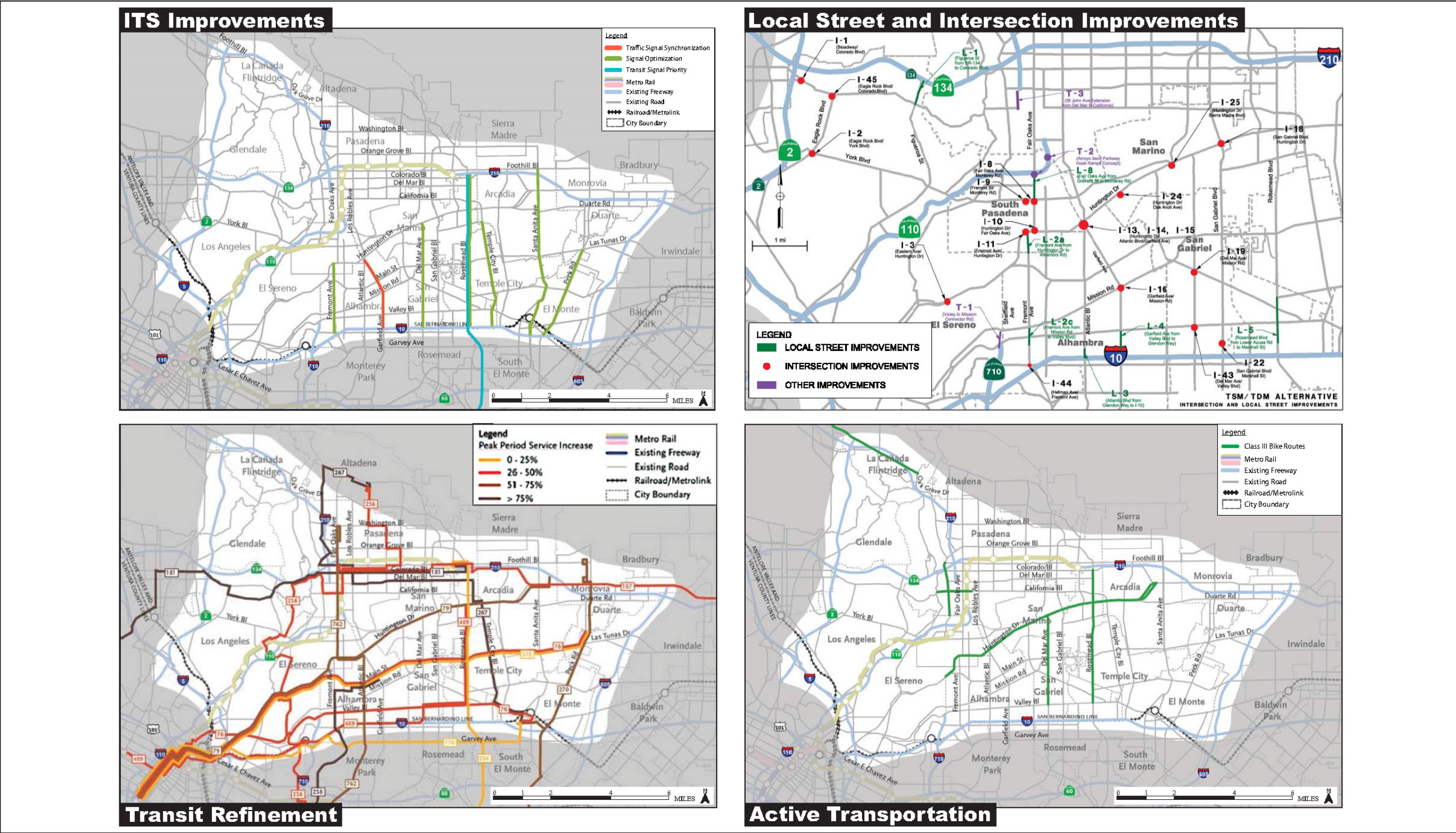


FIGURE 3-3

SR 710 North Study
TSM/TDM Alternative
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: CH2M HILL (2013)
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TABLE 3-1:
TSM/TDM Alternative Elements

ID No.	Description	Location
ITS Improvements		
ITS-1	Transit Signal Priority	Rosemead Boulevard (from Foothill Boulevard to Del Amo Boulevard)
ITS-2	Install Video Detection System on SR 110	SR 110 north of US 101
ITS-3	Install Video Detection System at Intersections	At key locations in study area
ITS-4	Arterial Speed Data Collection	On key north/south arterials
ITS-5	Install Arterial CMS	At key locations in study area
ITS-6	Traffic Signal Synchronization on Garfield Avenue	Huntington Drive to I-10
ITS-7	Signal optimization on Del Mar Avenue	Huntington Drive to I-10
ITS-8	Signal optimization on Rosemead Boulevard	Foothill Boulevard to I-10
ITS-9	Signal optimization on Temple City Boulevard	Duarte Road to I-10
ITS-10	Signal optimization on Santa Anita Avenue	Foothill Boulevard to I-10
ITS-11	Signal optimization on Peck Road	Live Oak Avenue to I-10
ITS-12	Signal optimization on Fremont Avenue	Huntington Drive to I-10

CMS = changeable message signs
 I-10 = Interstate 10
 ITS = Intelligent Transportation Systems
 SR 110 = State Route 110

TDM = Transportation Demand Management
 TSM = Transportation System Management
 US 101 = United States Route 101

TABLE 3-2:
Local Street and Intersection Improvements of the TSM/TDM Alternative

ID No.	Description	Location
Local Street Improvements		
L-1	Figueroa Street from SR 134 to Colorado Boulevard	City of Los Angeles (Eagle Rock)
L-2a	Fremont Avenue from Huntington Drive to Alhambra Road	City of South Pasadena
L-2c	Fremont Avenue from Mission Road to Valley Boulevard	City of Alhambra
L-3	Atlantic Boulevard from Glendon Way to I-10	City of Alhambra
L-4	Garfield Avenue from Valley Boulevard to Glendon Way	City of Alhambra
L-5	Rosemead Boulevard from Lower Azusa Road to Marshall Street	City of Rosemead
L-8	Fair Oaks Avenue from Grevelia Street to Monterey Road	City of South Pasadena
Intersection Improvements		
I-1	West Broadway/Colorado Boulevard	City of Los Angeles (Eagle Rock)
I-2	Eagle Rock Boulevard/York Boulevard	City of Los Angeles (Eagle Rock)
I-3	Eastern Avenue/Huntington Drive	City of Los Angeles (El Sereno)
I-4	I-710 SB On-Ramp/Valley Boulevard	City of Alhambra
I-5	I-710 NB Off-Ramp/Valley Boulevard	City of Alhambra
I-8	Fair Oaks Avenue/Monterey Road	City of South Pasadena
I-9	Fremont Street/Monterey Road	City of South Pasadena
I-10	Huntington Drive/Fair Oaks Avenue	City of South Pasadena
I-11	Fremont Avenue/Huntington Drive	City of South Pasadena
I-13	Huntington Drive/Garfield Avenue	Cities of Alhambra/South Pasadena/San Marino
I-14	Huntington Drive/Atlantic Boulevard	Cities of Alhambra/South Pasadena/San Marino
I-15	Atlantic Boulevard/Garfield Avenue	Cities of Alhambra/South Pasadena/San Marino
I-16	Garfield Avenue/Mission Road	City of Alhambra
I-18	San Gabriel Boulevard/Huntington Drive	City of San Marino/Unincorporated Los Angeles County (East Pasadena/East San Gabriel)
I-19	Del Mar Avenue/Mission Road	City of San Gabriel
I-20	Rosemead Boulevard/Mission Road	City of Rosemead
I-22	San Gabriel Boulevard/Marshall Street	City of San Gabriel
I-24	Huntington Drive/Oak Knoll Avenue	City of San Marino
I-25	Huntington Drive/ San Marino Avenue	City of San Marino
I-43	Del Mar Avenue/Valley Boulevard	City of San Gabriel
I-44	Hellman Avenue/Fremont Avenue	City of Alhambra
I-45	Eagle Rock Boulevard/Colorado Boulevard	City of Los Angeles (Eagle Rock)
Other Road Improvements		
T-1	Valley Boulevard to Mission Road Connector Road	Cities of Alhambra/Los Angeles (El Sereno)
T-2	SR 110/Fair Oaks Avenue Hook Ramps	Cities of South Pasadena/Pasadena
T-3	St. John Avenue Extension between Del Mar Boulevard and California Boulevard	City of Pasadena

I-10 = Interstate 10 SR 110 = State Route 110
 I-710 = Interstate 710 SR 134 = State Route 134
 NB = northbound TDM = Transportation Demand Management
 SB = southbound TSM = Transportation System Management

TABLE 3-3:
Transit Refinements of the TSM/TDM Alternative

Bus Route	Operator	Route Type	Route Description	Existing Headways		Enhanced Headways	
				Peak	Off-Peak	Peak	Off-Peak
70	Metro	Local	From Downtown Los Angeles to El Monte via Garvey Ave.	10-12	15	10	15
770	Metro	Rapid	From Downtown Los Angeles to El Monte via Garvey/Cesar Chavez Ave.	10-13	15	10	15
76	Metro	Local	From Downtown Los Angeles to El Monte via Valley Blvd.	12-15	16	10	15
78	Metro	Local	From Downtown Los Angeles to Irwindale via Las Tunas Dr.	10-20	16-40	10	15
378	Metro	Limited	From Downtown Los Angeles to Irwindale via Las Tunas Dr.	18-23	-	20	30
79	Metro	Local	From Downtown Los Angeles to Santa Anita via Huntington Dr.	20-30	40-45	15	30
180	Metro	Local	From Hollywood to Altadena via Los Feliz/Colorado Blvd.	30	30-32	15	30
181	Metro	Local	From Hollywood to Pasadena via Los Feliz/Colorado Blvd.	30	30-32	15	30
256	Metro	Local	From Commerce to Altadena via Hill Ave./Avenue 64/Eastern Ave.	45	45	30	40
258	Metro	Local	From Paramount to Alhambra via Fremont Ave./Eastern Ave.	48	45-55	20	30
260	Metro	Local	From Compton to Altadena via Fair Oaks Ave./Atlantic Blvd.	16-20	24-60	15	30
762 ¹	Metro	Rapid	From Compton to Altadena via Atlantic Blvd.	25	30-60	15	30
266	Metro	Local	From Lakewood to Pasadena via Rosemead/Lakewood Blvd.	30-35	40-45	15	30
267	Metro	Local	From El Monte to Pasadena via Temple City/Del Mar Blvd.	30	30	15	30
485	Metro	Express	From Union Station to Altadena via Fremont/Lake Ave.	40	60	30	60
487	Metro	Express	From Westlake to El Monte via Santa Anita Ave./Sierra Madre Blvd./San Gabriel Blvd.	18-30	45	15	30
489	Metro	Express	From Westlake to East San Gabriel via Rosemead Blvd.	18-20	-	15	-
270	Metro	Local	From Norwalk to Monrovia via Workman Mill/Peck Rd.	40-60	60	30	60
780	Metro	Rapid	From West LA to Pasadena via Fairfax Ave./Hollywood Blvd./Colorado Blvd.	10-15	22-25	10	20
187	Foothill	Local	From Pasadena to Montclair via Colorado Blvd./Huntington Dr./Foothill Blvd.	20	20	15	15

¹ This route would not be included as part of the BRT Alternative because the BRT Alternative would replace this service.

Ave. = Avenue

Blvd. = Boulevard

BRT = Bus Rapid Transit

Dr. = Drive

Express = Express Bus

Foothill = Foothill Transit

Metro = Los Angeles County Metropolitan Transportation Authority

Rapid = Bus Rapid Transit

Rd. = Road

TDM = Transportation Demand Management

TSM = Transportation System Management

TABLE 3-4:
Active Transportation and Bus Enhancements of the TSM/TDM Alternative

ID No.	Description	Location
Bus Service Improvements		
Bus-1	Additional bus service	See Table 3-3 and Figure 3-3
Bus-2	Bus stop enhancements	Along routes listed in Table 3-3
Bicycle Facility Improvements		
Bike-1	Rosemead Boulevard bike route (Class III)	Colorado Boulevard to Valley Boulevard (through Los Angeles County, Temple City, Rosemead)
Bike-2	Del Mar Avenue bike route (Class III)	Huntington Drive to Valley Boulevard (through San Marino, San Gabriel)
Bike-3	Huntington Drive bike route (Class III)	Mission Road to Santa Anita Avenue (through the City of Los Angeles, South Pasadena, San Marino, Alhambra, Los Angeles County, Arcadia)
Bike-4	Foothill Boulevard bike route (Class III)	In La Cañada Flintridge
Bike-5	Orange Grove bike route (Class III)	Walnut Street to Columbia Street (in Pasadena)
Bike-6	California Boulevard bike route (Class III)	Grand Avenue to Marengo Avenue (in Pasadena)
Bike-7	Add bike parking at transit stations	Metro Gold Line stations
Bike-8	Improve bicycle detection at existing intersections	Along bike routes in study area

Metro = Los Angeles County Metropolitan Transportation Authority

TDM = Transportation Demand Management

TSM = Transportation System Management

Where feasible, buses would run in dedicated bus lanes adjacent to the curb, either in one direction or both directions, during peak periods. The new dedicated bus lanes would generally be created within the existing street rights of way (ROW) through a variety of methods that include restriping the roadway, restricted on-street parking during peak periods, narrowing medians, planted parkways, or sidewalks. Buses would share existing lanes with other traffic in cases where there is not enough ROW. The exclusive lanes would be exclusive to buses and right-turning traffic during a.m. and p.m. peak hours only. At other times of day, the exclusive lanes would be available for on-street parking use.

A total of 17 BRT stations with amenities would be placed on average, at approximately 0.8 mi intervals at major activity centers and cross streets. Typical station amenities would include new shelters, branding elements, seating, wind screens, leaning rails, variable message signs (next bus information), lighting, bus waiting signals, trash receptacles, and stop markers. Some of these stops will be combined with existing stops, while in some cases, new stops for BRT will be provided. The BRT service would include 60-foot (ft) articulated buses with three doors, and would have the latest fare collection technology such as on-board smart card (Transit Access Pass [TAP] card) readers to reduce dwell times at stations. The BRT stops would be provided at the following 17 locations:

- Atlantic Boulevard at Whittier Boulevard
- Atlantic Boulevard between Pomona Boulevard and Beverly Boulevard
- Atlantic Boulevard at Cesar Chavez Avenue/Riggin Street
- Atlantic Boulevard at Garvey Avenue
- Atlantic Boulevard at Valley Boulevard
- Atlantic Boulevard at Main Street
- Huntington Drive at Garfield Avenue
- Huntington Drive at Marengo Avenue
- Fair Oaks Avenue at Mission Street
- Fair Oaks Avenue at Glenarm Street

-
- Fair Oaks Avenue at California Boulevard
 - Fair Oaks Avenue at Del Mar Boulevard
 - Del Mar Boulevard at Los Robles Avenue
 - Del Mar Boulevard at Lake Avenue
 - Del Mar Boulevard at Hill Avenue (single direction only)
 - Colorado Boulevard at Hill Avenue (single direction only)
 - Colorado Boulevard at Lake Avenue (single direction only)

Additionally, this alternative would include bus feeder routes that would connect additional destinations with the BRT mainline. Two bus feeder routes are proposed: one that would run along Colorado Boulevard, Rosemead Boulevard, and Valley Boulevard to the El Monte transit station; and another bus feeder route that would travel from Atlantic Boulevard near the Gold Line station to the Metrolink stations in the City of Commerce and Montebello via Beverly Boulevard and Garfield Avenue. In addition, other existing bus services in the study area would be increased in frequency and/or span of service. The El Sol shuttle improvements are an existing bus service that would be increased in frequency. The headways on the El Sol shuttle "City Terrace/East Los Angeles College (ELAC)" route that connect ELAC to the proposed Floral Station would be reduced from 60 minutes to 15 minutes.

The TSM/TDM Alternative improvements would also be constructed as part of the BRT Alternative, except as noted below. These improvements would provide the additional enhancements to maximize the efficiency of the existing transportation system by improving capacity and reducing the effects of bottlenecks and chokepoints. Local Street Improvements L-8 (Fair Oaks Avenue from Grevelia Street to Monterey Road) and the reversible lane component of L-3 (Atlantic Boulevard from Glendon Way to I-10) would not be constructed with the BRT Alternative.

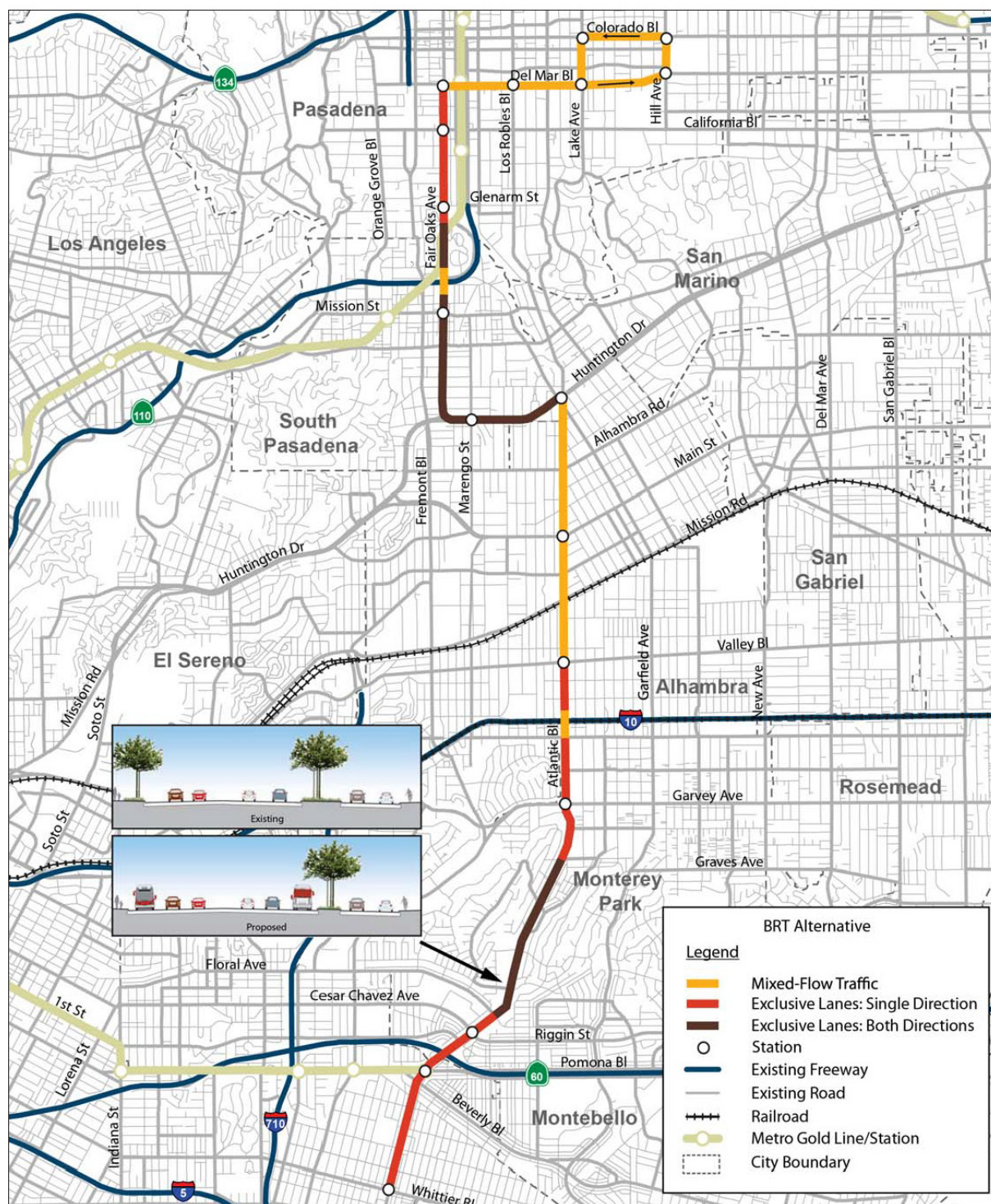


FIGURE 3-4

SR 710 North Study

BRT Alternative

07-LA-710 (SR 710)

EA 187900

EFIS 0700000191

Light Rail Transit (LRT) Alternative

The LRT Alternative would include passenger rail operated along a dedicated guideway, similar to other Metro light rail lines. The LRT alignment is approximately 7.5 mi long, with 3 mi of aerial segments and 4.5 mi of bored tunnel segments. Figure 3-5 illustrates the LRT Alternative.

The LRT Alternative would begin at an aerial station on Mednik Avenue adjacent to the existing East Los Angeles Civic Center Station on the Metro Gold Line. The alignment would remain elevated as it travels north on Mednik Avenue, west on Floral Drive, north across Corporate Center Drive, and then along the west side of I-710, primarily in Caltrans ROW, to a station adjacent to the California State University, Los Angeles (Cal State LA). The alignment would descend into a tunnel south of Valley Boulevard and travel northeast to Fremont Avenue, north under Fremont Avenue, and easterly to Fair Oaks Avenue. The alignment would then cross under SR 110 and end at an underground station beneath Raymond Avenue adjacent to the existing Fillmore Station on the Metro Gold Line.

Two directional tunnels are proposed with tunnel diameters approximately 20 ft each, located approximately 60 ft below the ground surface. Other supporting tunnel systems include emergency evacuation cross passages for pedestrians, a ventilation system consisting of exhaust fans at each portal and an exhaust duct along the entire length of the tunnel, fire detection and suppression systems, communications and surveillance systems, and 24-hour monitoring, similar to the existing LRT system.

Trains would operate at speeds of up to 65 miles per hour (mph) approximately every 5 minutes during peak hours and 10 minutes during off-peak hours.

Seven stations would be located along the LRT alignment at Mednik Avenue in East Los Angeles, Floral Drive in Monterey Park, Cal State LA, Fremont Avenue in Alhambra, Huntington Drive in South Pasadena, Mission Street in South Pasadena, and Fillmore Street in Pasadena. The Fremont Avenue Station, the Huntington Drive Station, the Mission Street Station, and the Fillmore Street Station would be underground stations. New Park-and-Ride facilities would be provided at all of the proposed stations except for the Mednik Avenue, Cal State LA, and Fillmore Street stations.

A maintenance yard to clean, maintain, and store light rail vehicles would be located on both sides of Valley Boulevard at the terminus of SR 710. A track spur from the LRT mainline to the maintenance yard would cross above Valley Boulevard.

Two bus feeder services would be provided. One would travel from the Commerce Station on the Orange County Metrolink line and the Montebello Station on the Riverside Metrolink line to the Floral Station, via East Los Angeles College. The other would travel from the El Monte Bus Station to the Fillmore Station via Rosemead and Colorado Boulevards. In addition, other existing bus services in the study area would be increased in frequency and/or span of service.

As part of the LRT Alternative, the I-710 northbound off-ramp at Valley Boulevard would be modified.

The TSM/TDM Alternative improvements would also be constructed as part of the LRT Alternative. These improvements would provide the additional enhancements to maximize the efficiency of the existing transportation system by improving capacity and reducing the effects of bottlenecks and chokepoints. The only component of the TSM/TDM Alternative improvements that would not be constructed with the LRT Alternative is Other Road Improvement T-1 (Valley Boulevard to Mission Road Connector Road).

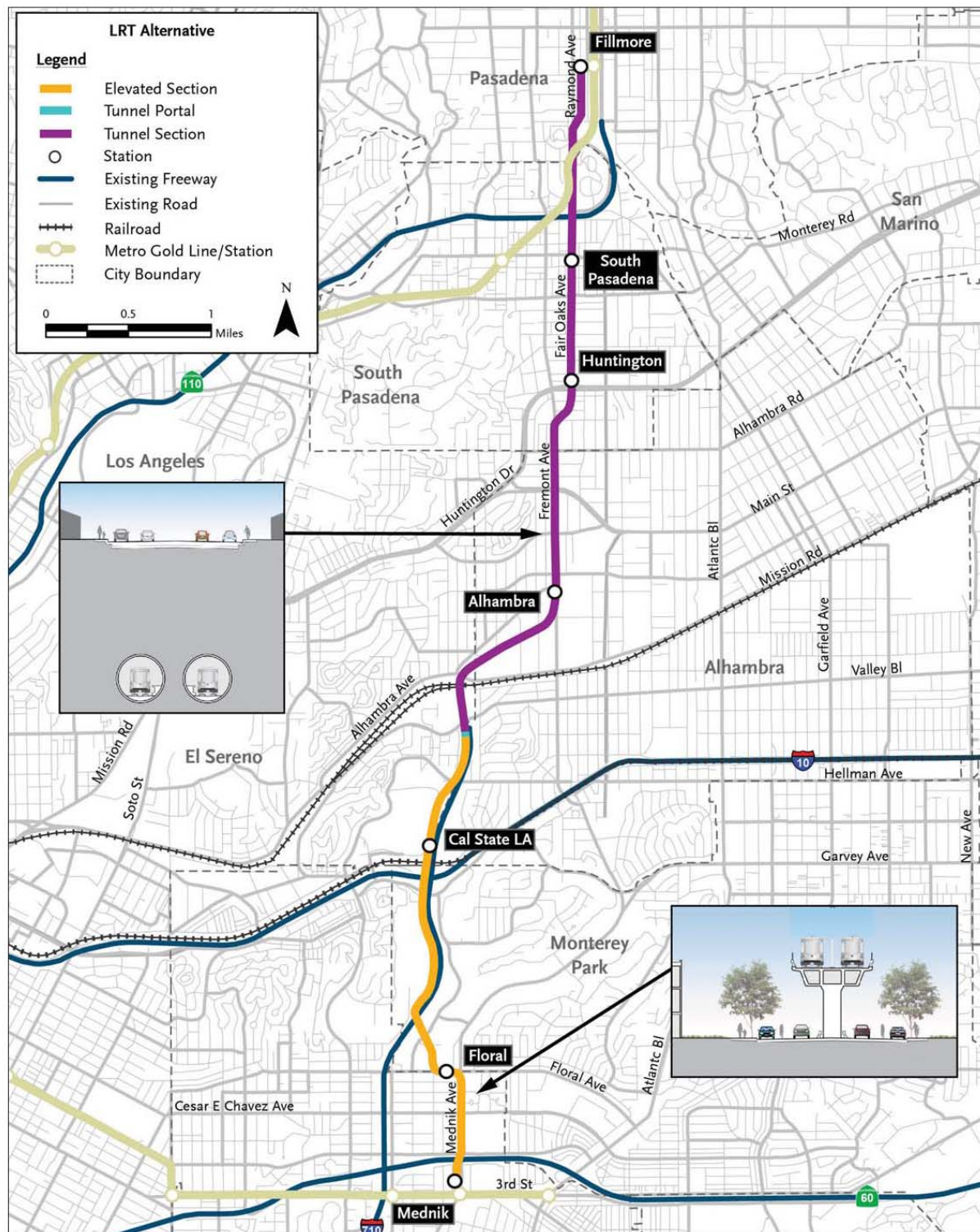


FIGURE 3-5

SR 710 North Study
LRT Alternative
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SOURCE: AECOM (2013)
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Freeway Tunnel Alternative

The alignment for the Freeway Tunnel Alternative starts at the existing southern stub of SR 710 in Alhambra, just north of I-10, and connects to the existing northern stub of SR 710, south of the I-210/SR 134 interchange in Pasadena. The Freeway Tunnel Alternative would include the following tunnel support systems: emergency evacuation for pedestrians and vehicles, air scrubbers, a ventilation system consisting of exhaust fans at each portal, an exhaust duct along the entire length of the tunnel and jet fans within the traffic area of the tunnel, fire detection and suppression systems, communications and surveillance systems, and 24-hour monitoring. An operations and maintenance (O&M) building would be constructed at the northern and southern ends of the tunnel. There would be no operational restrictions for the tunnel, with the exception of vehicles carrying flammable or hazardous materials.

As part of both design variations of the Freeway Tunnel Alternative, the I-710 northbound off-ramp and southbound on-ramp at Valley Boulevard would be modified.

The TSM/TDM Alternative improvements would also be constructed as part of the Freeway Tunnel Alternative, including either the dual-bore or single-bore design variations. These improvements would provide the additional enhancements to maximize the efficiency of the existing transportation system by improving capacity and reducing the effects of bottlenecks and chokepoints. The only components of the TSM/TDM Alternative improvements that would not be constructed with the Freeway Tunnel Alternative are Other Road Improvements T-1 (Valley Boulevard to Mission Road Connector Road) and T-3 (St. John Avenue Extension between Del Mar Boulevard and California Avenue).

Design Variations

The Freeway Tunnel Alternative includes two design variations. These variations relate to the number of tunnels constructed. The dual-bore design variation includes two tunnels that independently convey northbound and southbound vehicles. The single-bore design variation includes one tunnel that carries both northbound and southbound vehicles. Figure 1-6 illustrates the dual-bore and single-bore tunnel design variations for the Freeway Tunnel Alternative. Each of these design variations is described below.

- **Dual-Bore Tunnel:** The dual-bore tunnel design variation is approximately 6.3 mi long, with 4.2 mi of bored tunnel, 0.7 mi of cut-and-cover tunnel, and 1.4 mi of at-grade segments. The dual-bore tunnel design variation would consist of two side-by-side tunnels (the east tunnel would convey northbound traffic, and the west tunnel would convey southbound traffic). Each tunnel would have two levels with traffic traveling in the same direction. Each tunnel would consist of two lanes of traffic on each level, traveling in one direction, for a total of four lanes in each tunnel. The eastern tunnel would be constructed for northbound traffic, and the western tunnel would be constructed for southbound traffic. Each bored tunnel would have an outside diameter of approximately 58.5 ft and would be located approximately 120 to 250 ft below the ground surface. Vehicle cross passages would be provided throughout this tunnel variation that would connect one tunnel to the other tunnel for use in an emergency situation. Figure 3-6 illustrates the dual-bore tunnel variation of the Freeway Tunnel Alternative.

Short segments of cut-and-cover tunnels would be located at the south and north termini to provide access via portals to the bored tunnels. The portal at the southern terminus would be located south of Valley Boulevard. The portal at the northern terminus would be located north of Del Mar Boulevard. No intermediate interchanges are planned for the tunnel.

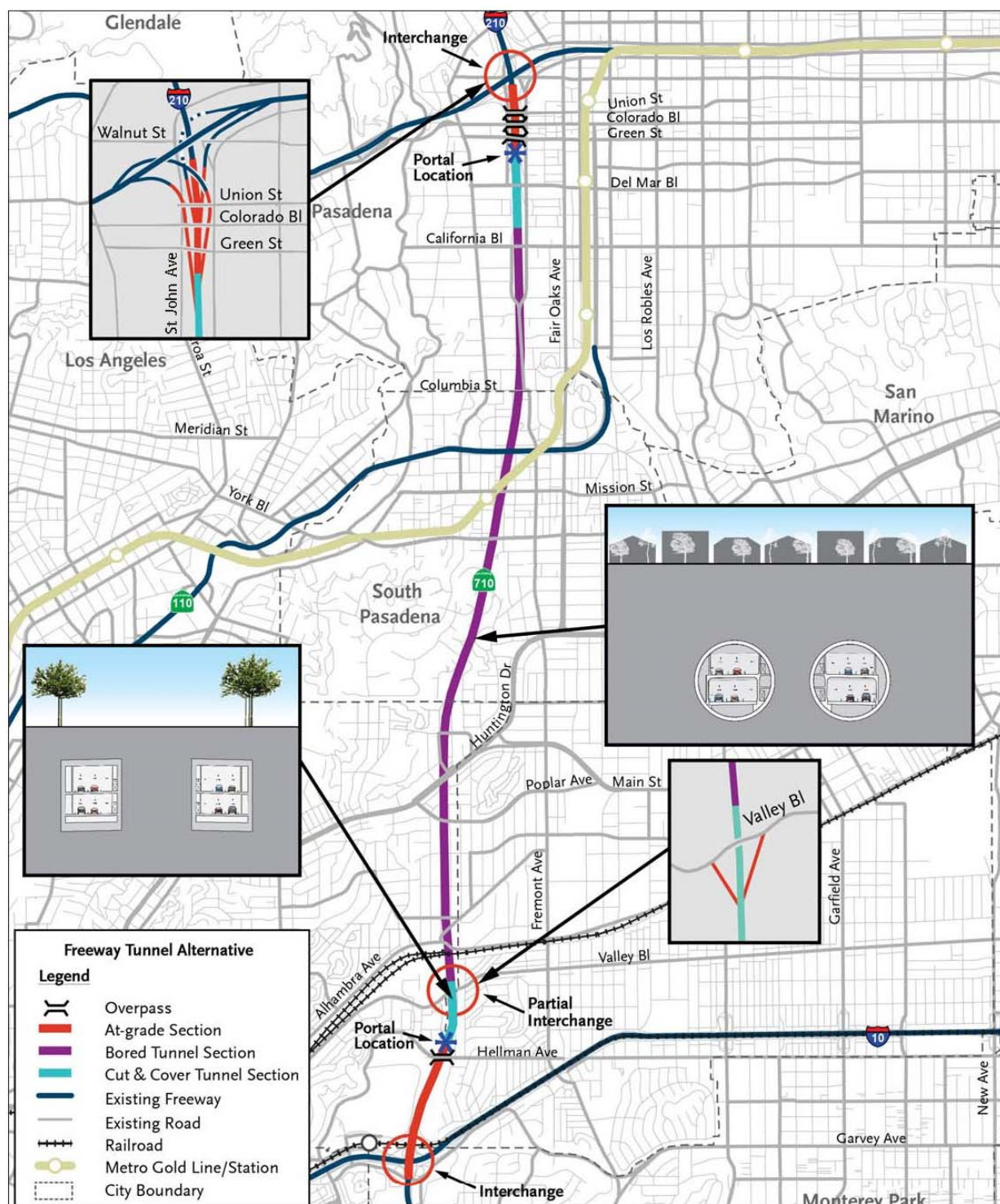
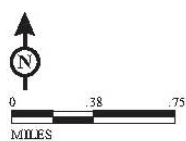


FIGURE 3-6



SOURCE: CH2M HILL (2013)

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SR 710 North Study
Freeway Tunnel Alternative
Single and Dual Bore
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

- **Single-Bore Tunnel:** The single-bore tunnel design variation is also approximately 6.3 mi long, with 4.2 mi of bored tunnel, 0.7 mi of cut-and-cover tunnel, and 1.4 mi of at-grade segments. The single-bore tunnel design variation would consist of one tunnel with two levels. Each level would have two lanes of traffic traveling in one direction. The northbound traffic would traverse the upper level, and the southbound traffic would traverse the lower level. The single-bore tunnel would provide a total of four lanes. The single-bore tunnel would also have an outside diameter of approximately 58.5 ft and would be located approximately 120 to 250 ft below the ground surface. The single-bore tunnel would be in the same location as the northbound tunnel in the dual-bore tunnel design variation. Figure 3-7 illustrates the single-bore tunnel variation cross section of the Freeway Tunnel Alternative.

Operational Variations

There were three different parameters related to the operational variations of the Freeway Tunnel Alternative:

- **Tolling:** Tolls could be charged for vehicles using the tunnel, or it could be free for all drivers.
- **Trucks:** Trucks could be prohibited or allowed.
- **Express Bus:** A dedicated Express Bus could be operated using the tunnel. The Express Bus route would start at the Commerce Station on the Orange County Metrolink line, and then serve the Montebello Station on the Riverside Metrolink line and East Los Angeles College before entering I-710 at Floral Drive. The bus would travel north to Pasadena via the proposed freeway tunnel, making a loop serving Pasadena City College, the California Institute of Technology, and downtown Pasadena before re-entering the freeway and making the reverse trip.

The following operational variations have been studied for the Freeway Tunnel Alternative:

- **Freeway Tunnel Alternative without Tolls:** The facility would operate as a freeway with lanes open to all vehicles. Trucks would be allowed and there would be no Express Bus service. This operational variation would be considered for only the dual-bore tunnel design variation.
- **Freeway Tunnel Alternative with Trucks Excluded:** The facility would operate as a freeway; however, trucks would be excluded from using the tunnel. There would be no Express Bus service. Signs would be provided along I-210, SR 134, I-710, and I-10 to provide advance notice of the truck restriction. This operational variation would be considered for the dual-bore tunnel only.
- **Freeway Tunnel Alternative with Tolls:** All vehicles, including trucks, using the tunnel would be tolled. There would be no Express Bus service. This operational variation would be considered for both the dual- and single-bore tunnels described above.
- **Freeway Tunnel Alternative with Trucks Excluded and with Tolls:** The facility would be tolled for all automobiles. There would be no Express Bus service. Trucks would be excluded from using the tunnel. Signs would be provided along I-210, SR 134, I-710, and I-10 to provide advance notice of the truck restriction. This operational variation would be considered for the single-bore tunnel only.
- **Freeway Tunnel Alternative with Toll and Express Bus:** The freeway tunnel would operate as a tolled facility and include an Express Bus component. The Express Bus would be allowed in any of the travel lanes in the tunnel; no bus-restricted lanes would be provided. Trucks would be permitted. This operational variation would be considered for the single-bore tunnel only.

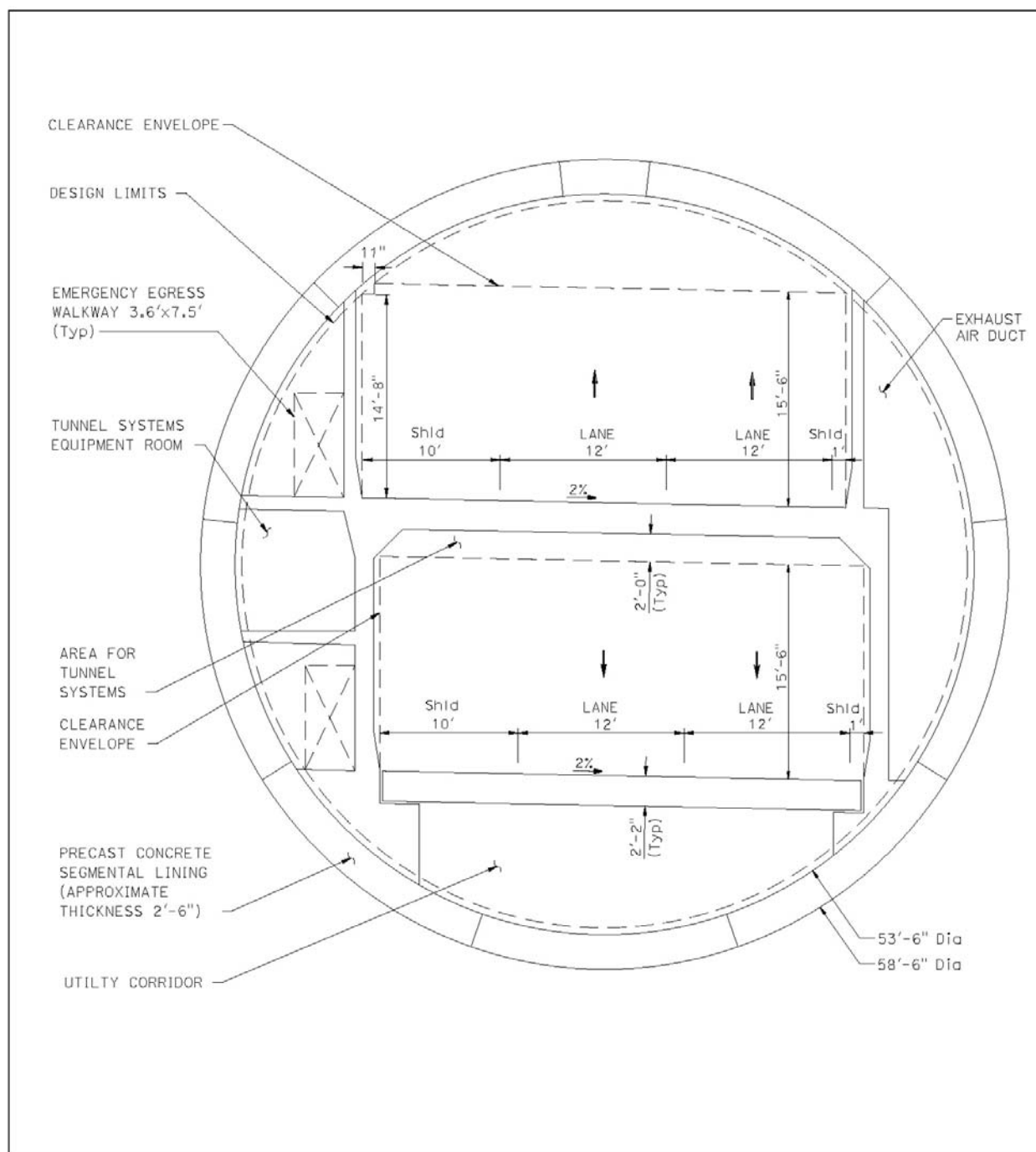


FIGURE 3-7

SR 710 North Study
Freeway Tunnel Alternative
Single Bore Cross Section
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: CH2M HILL (2014)

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IV. KEY VIEW DEVELOPMENT METHODOLOGY

Key views form the foundation for the Visual Impact Analysis. All visual impacts are relative to these Key Views. Understanding that the proposed Project's study area is approximately 100 square miles and encompasses a densely urban area composed of many land uses, these Key Views represent the typical visual conditions of the study area. It would not be feasible to analyze all views from which the study area can be seen. For example, a Key View may be selected based on the land use, population density, and view duration of the study area from that point. This section describes the process of selecting preliminary Key View locations, review of these locations and the final selections. Definitions for the other main Visual Assessment evaluation components and the descriptions of the methodology used in the component are located in the individual sections discussing each component.

Preparation of Key Views for Visual Impact Assessment

Preliminary Selection of Key Views

The preliminary selection of Key Views was conducted by an in-house analysis of mapping data. This data illustrated the various land uses and topography as well as key points where pedestrians and vehicular traffic might occur within the study area. All points deemed to have a possible representative view of the study area were selected.

Where the proposed Freeway, LRT and BRT alternatives provide representative views of new construction elements, the TSM/TDM Alternative does not impact views to the same extent as this alternative includes no new vertical structures, only new signage, traffic management, and new same-grade lanes and new roads. The proposed TSM/TDM elements do not change any of the visual quality criteria: vividness, intactness or unity.

Field Studies

The next step was to conduct a series of field studies for each preliminary Key View location. A team of Tatsumi and Partners analysts, as well as a photographer, conducted these studies from August 2012 to October 2013. Each of these field studies involved visiting the preliminary Key Views, confirming the land uses of the area and determining the representative nature of the views to the study area. Many preliminary locations were deleted from further consideration due to large obstructions of the views such as hills and other topographic features. Those deemed reasonable were included in the preliminary group of 30 Key View locations.

A photographic inventory was taken from each Key View location. All photographs were taken using a digital camera. These inventories were used for in-house analysis as well as the basis for the simulations of the proposed Project.

Review and Selection of Key Views

Forty-two preliminary Key Views were assessed by Tatsumi and Partners staff and ranked relative to their appropriateness to reflect the changes from the proposed Project to the existing environment, representation of views from publically accessible areas, and the anticipated viewer response from that Key View location. Thirty of the top ranked Key Views were then selected for recommendation for further study by the environmental team. After the environmental team reviewed and accepted the Key View recommendations, these thirty Key Views were submitted to, reviewed by, and approved by Caltrans. Continued review of the Key Views was done to take ongoing project alignment changes into account and some modifications were made in the selection of the final thirty Key Views.

To facilitate the presentation of visual data in this report, the Key Views are labeled respective to their built alternative. For example, Key Views selected to represent the BRT Alternative are labeled 1-BRT, 2-BRT; Key Views selected to represent the LRT Alternative are labeled 3-LRT, 4-LRT, et al; and Key Views selected to represent the Freeway Tunnel Alternative are labeled 21-FWY, 22-FWY, et al. No Key Views were selected to represent the TSM/TDM Alternative.

Preparation of the Visual Simulations

Visual simulations are a primary tool for Visual Impact Assessments which illustrate the differences between the existing conditions and the proposed construction. Considering the importance of this function, a brief description of the process of developing these simulations is warranted.

Existing Photograph

First, a photograph of the existing view was taken from each approved Key View location. The digital camera lens was set with the focal length of 30 millimeters. This focal length is calculated from the dimensions of the camera's imaging sensor and mimics the perspective of the human eye. The precise location and direction of the view were recorded utilizing latitude, longitude and heading. Each Key View photograph of the existing conditions then served as the baseline from which all other images of the view were compared.



Source: Tatsumi and Partners, Inc. (2013)

Figure 4-1: Example of Existing Condition

Digital Modeling

Concurrent with the field photography, digital models of the scene depicted in the Key View were created from engineering data of the proposed Project. This modeling was accomplished by obtaining the horizontal and vertical data of the Project construction, coupled with distance and topographic information obtained by available topographic mapping (provided by the engineering team) and other aerial mapping sources such as Google Earth. The engineering data was then verified in concert with the project design team. The specific view point for each digital model uses the architectural standard eye height of 5'-7" for

reference. The resulting image is a “wireframe” view of the proposed completed Build Alternatives from the standpoint of the selected Key View location.

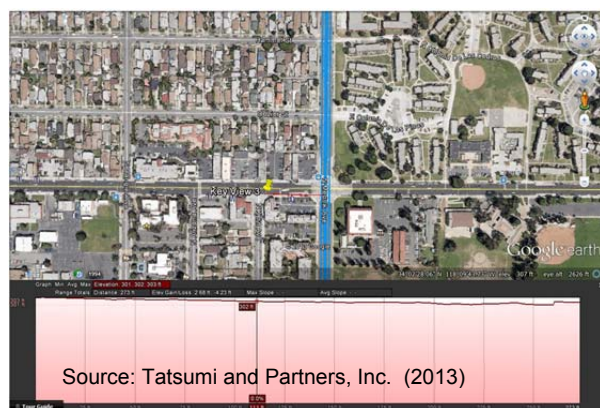


Figure 4-2: Example of Aerial Analysis



Figure 4-3: Example of 3-D Digital Modeling

Upon the completion of the digital modeling, the “wireframe” was “painted” to simulate solid objects. Using materials, textures and colors obtained from the project design team, each model was given solid surfaces which simulate the completed construction. Shadows and other visual elements were then introduced to create a realistic simulation. For the purposes of this visual impact assessment, these simulations of the proposed base conditions depict views of the Build Alternatives as they would be after the installation of standard Caltrans landscaping.

For the purposes of this Visual Impact Assessment, the final built project upon which all assessments would be based is considered to be that which is constructed, usable, meets current Caltrans requirements for baseline construction including baseline landscaping, but that features no enhanced landscaping/aesthetics or other visual modifications beyond the Caltrans standard requirements. While enhancements are desirable, there are currently no standards and/or requirements for enhanced aesthetic treatments on structures. Each structure is treated on an individual project basis in conjunction with the District Landscape Architect and the Structures Aesthetics group in Sacramento. The Caltrans baseline landscaping for any given construction project includes the planting of trees no larger than 15-gallons and an automated irrigation system which are feasible within the Caltrans standardized budget expressed in dollars per acre. Enhanced landscaping such as larger size plant materials, closer spacing (within allowable spacing guidelines), and architectural aesthetic treatments are allowed when these elements address potential visual impacts. There was no attempt to further enhance the resulting visual simulations in any way. Enhancements to these construction areas are addressed in subsequent sections of this report, including many architectural features developed by the design team.

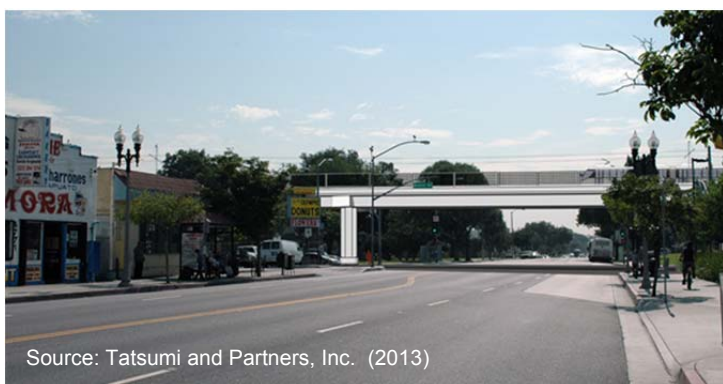


Figure 4-4: Example of “Visual Simulation: Proposed Base Condition”

V. ENVIRONMENTAL LAWS AND POLICIES

The following laws and regulations pertain to the protection of visual resources. The guidelines under these laws were used in this analysis to determine potential effects of the Build Alternatives on the visual aesthetic environment.

A. Federal Visual Policies

National Environmental Policy Act of 1969 (NEPA). As amended in 1982, NEPA requires that proposed Federal projects consider potential effects that the project would likely have on the environment. As amended it establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* and culturally pleasing surroundings (42 United States Code [USC] 4331[b][2]). To further emphasize this point, the Federal Highway Administration (FHWA) in its implementation of NEPA (23 USC 109[h]) directs that final decisions on projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

NEPA is concerned with the protection of the existing visual appearance of:

- Scenic highways,
- Section 4(f) lands,
- Lands managed by the United States Forest Service,
- Lands managed by the Bureau of Land Management,
- Significant cultural and historic resources, and
- Lands associated with the National Wild and Scenic Rivers system.

Section 4(f) of the Department of Transportation Act, 1966, including the amendment of 1968, recodification of 1983, and the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). This act is intended to protect and preserve the natural beauty of public parks and recreational land uses, wildlife and waterfowl refuges, and historic sites. The act encourages planning to maintain, protect, and minimize harm to any of these natural and recreational areas.

Historic Preservation Act of 1969. This act and the subsequent (up through 2004) regulations implementing it define “criteria of adverse effect” in Section 800.5 as including the “introduction of visual, atmospheric, or audible elements that diminish the integrity of the property’s significant historic features.”

B. State and Regional Visual Policies

California Environmental Quality Act, 1970 (amended 2014). The California Environmental Quality Act (CEQA) was adopted in 1970 and incorporated in the Public Resources Code §§21000-21177. Its basic purposes are to: inform about the potential substantial environmental effects of proposed activities; identify ways that environmental damage can be avoided or considerably reduced; require changes in projects through the use of alternatives or mitigation measures when feasible; and publicly disclose the reasons why a project was approved if substantial environmental effects are involved. CEQA applies to projects undertaken, funded or

requiring an issuance of a permit by a public agency. The analysis of a project required by CEQA usually takes the form of an Environmental Impact Report (EIR) or Negative Declaration (ND).

California Department of Transportation (Caltrans) – State Scenic Highway. State Scenic Highway is any freeway, highway, road, or other public right-of-way designated by Caltrans that traverses an area of exceptional scenic quality. Suitability for designation as a State Scenic Highway is based on the visual concepts of vividness, intactness, and unity. None of the roads in the proposed Project's viewshed are designated as a State Scenic Highway.

C. Local Visual Policies

While the Project study area includes the cities of Los Angeles, Monterey Park, Alhambra, South Pasadena, Pasadena, San Gabriel, San Marino, El Monte, Temple City and Arcadia, all of the proposed Project's Build Alternatives are limited to the cities of Los Angeles, Monterey Park, Alhambra, South Pasadena, Pasadena, San Gabriel, and San Marino. Since the proposed Project will not be built within or be visible from the cities of El Monte, Temple City or Arcadia, their visual policies will not be included within this visual assessment.

Most municipalities desire and strive to preserve, restore, enhance, and/or create visually pleasing views for their residents, businesses and visitors. An aesthetically pleasing area can increase the desirability to live/work in a particular location and thereby increase property value. Regulations for the preservation of historic buildings, neighborhood character and natural resources are commonly written into General Plans, Master Plans and other municipal documents to insure compliance with the City's development/redevelopment goals.

This section of the visual assessment covers some of the most recent published policies and goals of the cities directly impacted by the proposed Project in regards to visual assessment.

While the County of Los Angeles has three State designated Scenic Highways and eight County designated Scenic Highways, none are within the proposed Project's viewshed and study area. The Arroyo Seco Parkway which runs through Pasadena, South Pasadena and Los Angeles was awarded National Scenic Byway status in 2002. The City of Los Angeles has designated several scenic corridors; however, only the San Gabriel/Verdugo Mountains Scenic Preservation Area falls within the proposed Project's study area and viewshed. Monterey Park, Alhambra, South Pasadena and Pasadena have not designated any local scenic roads or areas within the proposed Project viewshed.

County of Los Angeles – General Plan 2008 Draft and Transportation Element, adopted March 2012. Los Angeles County recognizes the need to preserve and protect its visual and scenic resources and has adopted the following policies:

- o Identify and protect scenic resources,
- o Identify and protect the County's scenic highways, corridors, and routes,
- o Manage development in hillside areas to protect their natural and scenic character, and
- o Reduce light trespass and light pollution.
- o Protect and enhance aesthetics resources within corridors of designated scenic highways.
- o Establish and maintain urban scenic highways to provide access to interesting and aesthetic manmade features, historical and cultural sites, and urban open space areas.

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- o Develop and apply standards to regulate the quality of development within corridors of designated scenic highways.
 - o Remove visual pollution from designated scenic highway corridors.
 - o Require the development and use of aesthetic design considerations for road construction, reconstruction or maintenance for all designated scenic highways.

City of Los Angeles. The City of Los Angeles has adopted a citywide general plan framework that establishes the broad overall policies and direction for the entire General Plan and incorporates the City's 35 community plans to collectively comprise the Land Uses Element of the City's General Plan. This VIA reviewed the specific community plan for the directly impacted Northeast LA community. El Sereno is located in the area adjacent to the cities of South Pasadena, Alhambra, and Monterey Park and City Terrace. The I-10 generally corresponds to the southern boundary, and the I-710 and its proposed northerly extension to Pasadena parallels the eastern boundary. Huntington Drive is the principal commercial east-west corridor, and Eastern Avenue is the most prominent north-south commercial street.

Northeast Los Angeles Community Plan (including El Sereno Community), 1999
Land Use Element

GOAL 4: Sufficient Open Space, In Balance With Development, To Serve The Recreational, Environmental, And Health Needs Of The Community And To Protect Environmental And Aesthetic Resources.

Objective 4-1: To preserve existing views in hillside areas.

Policies:

4-1.1 Encourage the retention of passive and visual open space which provides a balance to the urban development of the Plan Area.

Program: Plan implementation is, in part, based on continued application of the adopted Citywide Hillside Ordinance and the Mount Washington/Glassell Park Specific Plan, which contribute to preservation of views.

Program: The Plan Map designates most privately-owned hillside areas for Low, Very Low, and Minimum residential density categories and most publicly-owned hillside areas as Open Space.

Program: The Plan Map protects ridgeline properties northerly of the I-134 Freeway and adjacent to the I- 210 Freeway by amending the Plan designations and changing the zone to ensure maximum open space preservation.

Objective 4-2: To preserve existing open space resources and, where possible, encourage acquisition of new open space.

Policies:

4-2.1 Accommodate and promote active use of parklands and open space and promote and preserve greenways.

GOAL 15: The Revitalization Of A Physical Environment Conducive To Increasing And Improving Economic Activity.

Objective 15-1: To improve the visual environment of existing commercial and industrial areas.

Policies:

15-1.1 Identify distinct commercial and industrial areas within the community.

Program: Plan map and text in Chapter III of this Plan identify commercially- and industrially-planned areas with supporting policies and programs.

15-1.2 Develop architectural and design guidelines and standards for revitalization and new development in targeted commercial and industrial areas.

Program: The Plan includes Chapter V: Urban Design and an Appendix of Standards and Guidelines to address this policy.

15-1.3 Assess the needs of commercial and industrial areas to retain and improve their functional and aesthetic character.

Program: Implement, where appropriate:

- a. Revitalization/Redevelopment Programs.
- b. The Commercial and Industrial Policies in Chapter III, Land Use Policies and Programs.
- c. Community Design Overlay Districts, Pedestrian Overlay Districts, Historic Preservation Overlay Districts.

Community Design and Landscaping Guidelines

Attractive public spaces are crucial to achieving the goals of the Northeast Los Angeles Community Plan. Community identity and appearance should be enhanced through streetscape improvements and well-maintained landscaping in all public spaces, including rights-of-way. The improvements would be implemented as opportunities in the Northeast Los Angeles Community Plan Area occur in connection with public improvements or when public and/or private projects affect public space and rights-of-way.

These improvements can create a sense of entry into Northeast Los Angeles from adjacent cities and communities. Additionally, public spaces and rights-of-way should capitalize on existing positive physical attributes of commercial districts, major institutions, and transportation corridors to differentiate the individual neighborhoods and communities that comprise Northeast Los Angeles. Finally, there is a need to incorporate design principles that enhance the attractiveness and utility of public places by enhancing personal safety.

Street trees are an important component of the aesthetic character of an area. Consistent use of appropriate street trees provides shade and a sense of comfort during hot summer months. They also emphasize sidewalk activity and enhance its safety by separating vehicular and pedestrian traffic. Finally, they create an area-wide identity that emphasizes the attractiveness of the communities and neighborhoods within Northeast Los Angeles and assists in distinguishing them one from another.

The above-mentioned enhancements must be integrated with a substantial commitment by public agencies to repair and maintain existing infrastructure improvements, especially streets and sidewalks.

Entryways and Corridors

Entryway improvements should be made along principal streets at the City boundary with adjacent jurisdictions, at major identified intersections, and at edges that clearly distinguish major entries to the City. Such improvements may include elements such as signage, landscaping,

vertical pylons, and/or other distinctive treatments. Implementation of this policy can be accomplished by:

1. Establishing primary entry improvements at the following areas:
 - a. Colorado Boulevard near the State 134 Freeway
 - b. York Boulevard at San Pascual Avenue
 - c. Huntington Drive at Poplar Boulevard
2. Establishing secondary entry improvements at or near freeway off-ramps in the following areas:
 - a. Broadway at I-5 (Golden State) Freeway
 - b. Glendale Boulevard at I-5 (Golden State) Freeway
 - c. Los Feliz at I-5 (Golden State) Freeway
 - d. Avenue 52 at SR 110 (Pasadena) Freeway
 - e. Avenue 43 at SR 110 (Pasadena) Freeway
 - f. Valley Boulevard at I-710 (Long Beach) Freeway terminus
 - g. Figueroa Street at State 134 Freeway
3. Create entry improvements as gateway elements to major commercial districts or emphasize more centrally located community landmarks; these elements could consist of monument signs, banners on freestanding poles, banners hung from existing light or marbelite standards, or graphic elements hung from or attached to privately-owned buildings. These improvements should be located at the following intersections:
 - a. Colorado Boulevard and Eagle Rock Boulevard
 - b. York Boulevard and Eagle Rock Boulevard
 - c. Colorado Boulevard and Figueroa Street
 - d. Avenue 50 and Figueroa Street
 - e. Avenue 60 and Figueroa Street
 - f. Fletcher Drive and San Fernando Road
 - g. North Broadway and Daly Street
 - h. Huntington Drive and Eastern Avenue
 - i. Figueroa Street and York Boulevard

Public Open Space, Greenways and Plazas

Public open space standards should be established to guide the design of new public plazas, greenways, and open spaces to enhance their attractiveness and function. Priority should be given to the siting of public open space and greenways to maximize pedestrian accessibility and circulation, as well as personal safety. Siting should, therefore, include consideration of exposure

to the elements, as well as adjacency to logical and established pedestrian routes and other open spaces. Consideration should be given to durability and maintenance requirements in the selection of plant and hardscape materials.

Streetscape / Landscape

A comprehensive streetscape and landscape improvement and maintenance program should be established for identified corridors and districts that would set standards and priorities for the selection and installation of such items as street trees, street lighting, sidewalk/crosswalk paving, street furniture, and public signage, subject to the following criteria:

1. Priority for establishing streetscape and landscape standards and their implementation should be directed to areas where City policies for revitalization and preservation have been adopted, including specific plan areas, historic preservation areas, Business Improvement Districts, redevelopment areas, pedestrian-oriented districts, community design overlay areas, and areas receiving federal and state funds or having eligibility for tax credits and other incentives.
2. Strategies for preservation, improvement, and substantially better maintenance of existing landscaped median strips should be developed.
3. Selection of drought-and smog-tolerant and fire-resistant street trees and other plants should incorporate species that enhance the pedestrian character and convey a distinctive high quality visual image for the corridors, their immediate neighborhoods and complement the surrounding buildings and landscaping. A system of functional distinctions for the street trees should be established in accordance with the Street Tree Master Plan and in keeping with existing community elements. They should include:
 - Major accent trees to be located at entry locations, intersections, and activity centers.
 - Street trees of a single species as the common tree for individual street frontages. A single flowering species may be selected for all residential neighborhoods and commercial districts or different species selected to distinguish one neighborhood, district, or street from one another. In residential neighborhoods, the trees should be full, to provide shade and color. In commercial districts, the trees should provide shade, but be more transparent to promote views of store fronts and signs.
 - Ornamental trees or special plantings to provide linkages to pedestrian walkways and plazas and outdoor dining areas. Ornamental trees should provide shade and color to emphasize and focus attention on those places.
4. Street furniture should be installed that encourages and complements pedestrian activity or physical and visual access to buildings and which is consistent in design with characteristic neighborhood features, functional, and comfortable. Street furniture includes such elements as kiosks, bus and pedestrian benches, bus shelters, trash receptacles, newspaper racks, bicycle racks, public telephones, landscaped planters, drinking fountains, and bollards. Priority should be given to providing street furniture in pedestrian-oriented areas and Business Improvement Districts.
5. Street lighting should be installed in commercial districts to enhance pedestrian use by being attractive, compatible in design with facades and other street furniture, and which provides adequate visibility, security, and a festive night-time environment. Additionally, street lighting types should be used in historic preservation, specific plan, and commercial revitalization areas that are compatible with the historic commercial fabric and coordinated with an overall street furniture and graphics/signage program.

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6. Public Utility and telecommunications equipment should be treated as to minimize their contribution to visual pollution by:
 - a. Developing a systematic schedule for undergrounding utilities and upgrading remaining power and telephone poles.
 - b. Locating telecommunications equipment to minimize its visibility on rooftops and providing screening if it cannot be otherwise shielded from view.
 7. Sidewalks/Crosswalks should be enhanced in principal commercial districts such as Colorado Boulevard, Figueroa Street, and Broadway. Brick pavers, concrete, or other safe, non-slip materials should be used to create distinctive sidewalks and crosswalks. These would visually and physically differentiate them from vehicle travel lanes and promote continuity of pedestrian pathways. Sidewalk "pull-outs" can be installed at intersections, where they do not adversely impact traffic flow or safety, by extending the sidewalk to the depth of a parking stall, to accommodate landscaping and street furniture and reduce the width of crosswalks. Major thoroughfares, including bridges, should be surveyed to determine where sidewalks are deficient to provide needed access and public safety.
 8. Public signage, in accordance with the City sign ordinance, should be coordinated to emphasize the distinctive character of individual commercial areas by:
 - a. Establishing consistent themes for all public signage, including fixture type, lettering, colors, symbols, and logos designed for specific areas or pathways within neighborhoods and communities.
 - b. Providing for distinctive signage which identifies principal entries to the principal commercial areas, unique neighborhoods, historic structures and districts, and public buildings and parks.
 - c. Ensuring that public signage complements, and does not detract from, adjacent commercial and residential uses and that it enhances designated historic sites and districts.

City of Monterey Park – General Plan, 2005

Goal 14.0: Create a sense of community and identity for the residents and businesses of Monterey Park.

Policy 14.1: Implement the design improvements and changes outlined in the Urban Design Plan.

Policy 14.2: Continue to apply design guidelines for new construction and redevelopment within the City's commercial areas.

Urban Design Plan City Gateways

Gateways mark the major entrances into the City and welcome visitors, shoppers, and citizens to Monterey Park. The gateways provide the opportunity to announce that you are entering a special place. Gateways should have distinctive design features such as signs, graphics, landscaping, and accent lighting that clearly communicate the community's commitment to high-quality design and development.

Gateway treatments to be pursued at major entrances to the City include South Atlantic Boulevard

Gateways preferably are located on a raised median island and/or in parkways on both sides of the street. Substantial sign monuments with graphics that reinforce City identity, accompanied by complementary landscape plantings and accent lighting, should welcome visitors and residents alike. Specimen trees, annual color, enhanced paving, and accent lighting can often be effectively incorporated into the gateway design.

Arterial Corridors

Key arterial corridors form the visual frame of the City. These major streets are the paths of movement from which most residents and visitors experience the community. Streets given high priority as elements for upgrading the City's image include Atlantic Boulevard, Garfield Avenue, Garvey Avenue, New Avenue, Monterey Pass Road, and Potrero Grande Drive.

Along these key arterials, community image can be readily enhanced and reinforced by the repetition of distinctive streetscape elements, including:

Street Trees

A well-formulated street tree master plan for all major arterials and attendant management policies to monitor, maintain, replace and augment the City's street tree inventory should be prepared.

Underground Utilities

The existing overhead utility lines contribute to the visual clutter experienced along key arterial streets. The lines also limit tree species and pruning height. A program to place utilities underground along key streets would facilitate street tree planting and eliminate unsightly clutter.

Street Furniture

A preferred style of street furniture and fixtures - pole masts and arms for street lighting, signalization and signage, bus shelters, benches, bollards, news racks, planters and tree grates - should be selected to typify the City.

Enhanced Paving

A distinctive enhanced paving style for selected crosswalks and median paving should be identified and specified as part of a phased program of right-of-way improvements.

Graphics and Signage

A consistent graphic style for all public signage, including size, lettering, colors, symbols, and logos, should be developed. Banners can also be used to reinforce the sense of "entry" into the City.

Lighting

Distinctive nighttime illumination along major arterials to be considered include accent lighting for landscaping and key landmark buildings, decorative pedestrian lighting fixtures, and the use of high-pressure sodium bulbs to create warm illumination tones.

Design Guidelines

The City has adopted design guidelines for new construction and redevelopment within the commercial and industrial business districts. By requiring development projects to adhere to standards of quality design, the City looks to improve the overall character and function of these important business areas. The guidelines are written as a user-friendly "kit-of-parts" intended to reinforce specific design themes of the various business districts. The guidelines define common design elements that property owners choose from when planning rehabilitation efforts or designing new projects. Elements include lighting, building/shape form, awnings/eyebrows, materials, screening/ landscaping, color, signage, storefront system/windows, and roof/parapet.

City of Alhambra – General Plan, amended 1987**Land Use Element**

Policy 4.1.3: Encourage land use patterns that minimize incompatibility between uses.

Environmental Management Element**Goals**

3.1: To conserve, enhance, rehabilitate and protect natural resources.

3.4: To develop a unified overall community appearance.

Policies:

4.1.3: Continue to maintain conservation areas in the City to protect natural resources and provide open space.

4.3.1: Promote community identification and beautification.

4.3.3: Continue to maintain attractively landscaped medians along main streets.

4.3.4: Encourage the beautification of entry points to the City and development of attractive parks, signs and landscaped right-of-ways within clean view of passing motorists to distinguish the City from the surrounding cities.

Implementation Element**Zoning and Subdivision Ordinances**

- Criteria used for evaluating a proposal that meets the guidelines to convert residential land use along major arterials could include a requirement to provide adequate buffering with a wall or landscaping.
- Criteria used for evaluating a proposal that meets the guidelines for conversions to commercial land uses particularly along major arterials include a requirement to provide “landscaped buffers with mature landscaping, a wall, or both on those sides abutting a residentially zoned area....The landscaped buffer strip between the wall and adjacent property owner should be a minimum of 3 feet.”

City of South Pasadena – General Plan, 1998**Land Use Element**

GOAL 1: To manage change and target growth by type and location to better serve community needs and enhance the quality of life.

1.4: Encourage pedestrian-oriented development. Adopt specific plans, zoning designations and development standards for targeted areas appropriate to assure compatible scale and orientation of permitted and conditionally-permitted uses, effective site planning, building design, massing and signage, shared parking and the joint use of facilities, and an emphasis on transit and bicycle access.

1.5: Promote inclusion of art and amenities. Encourage and require, where feasible, the incorporation of public art, gardens, light and water features, courtyards and passageways, and public plazas into the design of public improvements and private projects.

GOAL 3: To emphasize pedestrians over cars in portions of the city.

3.2: Downscale the street where appropriate. Consider introducing medians and street trees to reduce the scale of the street where appropriate.

3.3: Increase vehicular/pedestrian separation. Provide greater physical separation between vehicles and pedestrians, such as restricting and consolidating curbcuts and by narrowing the vehicular right-of-way with the addition of protected curbside parking bays. Add bollards to protect pedestrians at corners, additional street trees to enhance sense of visual separation, and add textured paving to demarcate improved crosswalks.

3.9: Neutralize visual impacts of parking. Promote methods to neutralize the visual impact of large expanses of at-grade parking wherever possible.

GOAL 8: To harmonize physical change to preserve South Pasadena's historic character, scale, and "small town atmosphere."

8.1: Require contextual, compatible and responsible design. Encourage new development to respect South Pasadena's heritage by requiring that it "respond to context" - the distinctiveness of the locality and region as well as the scale and special characteristics of the fabric of the site's immediate surroundings; require that it be compatible with the traditions and character of the City, and minimize adverse impacts on the privacy and access to light and air of its neighbors.

GOAL 9: To conserve and preserve the historic "built" environment of the city by identifying the architectural and cultural resources of the city, by encouraging their maintenance and/or adaptive reuse, and by developing guidelines for new and infill development assuring design compatibility.

9.1: Maintain and augment the historic resource inventory. Document, and evaluate the significance of individual historic and cultural resources and districts identified by the Citywide historic resource survey, and continue the City's long-range program of conducting intensive surveys of historic neighborhoods.

9.3: Prepare preservation plan. Prepare a preservation plan that identifies strategies to protect or minimize negative impacts to historic resources, including provisions to deter demolition of historically, architecturally, or culturally significant structures.

9.4: Encourage adaptive reuse. Encourage and promote the adaptive reuse of South Pasadena's historic resources.

GOAL 10: To preserve the scale, architectural character, infrastructure and landscape assets of South Pasadena's established residential neighborhoods.

10.9: Protect hillsides. In recognition of the special character of the hillsides throughout the city, continue strict protections through city grading and hillside ordinances.

GOAL 12: To define and enhance the primary entryways into the city.

12.1: Maintain “gateway” embankment at Pasadena Freeway and Arroyo Drive Over-Pass. Assure proper planning, adequate maintenance and nighttime illumination of this most important and highly visible natural sign for the City.

12.2: Create gateways for other entries. Amend the zoning ordinance as appropriate to establish requirements for gateway site dimensions, landscape design standards, site design standards, signs (including off-site signs for non-commercial purposes such as imparting visitor information, to be integrated into the on-site sign program approved for development), uses, development projects that would result in upgrading or creation of designated gateway sites, and other requirements as necessary.

GOAL 13: To maintain and enhance the desirable character, scale and appearance of the City's streets, highways, and parking facilities.

13.1: Affirm roadway “beautification” as policy. Because the City is a developer, the City will make every effort to beautify and improve the appearance of its streets, highways, and parking facilities.

13.2: Prioritize median and parkway landscape. Affirm the beautification merits of additional landscaped medians and parkway improvements along major arterials; consider additional street tree plantings.

13.4: Plant and maintain street trees. A citywide pattern of healthy street trees shall be sought.

13.6: Address “remainder” areas. Landscape the “remainder” areas that result from changes to parking or traffic patterns on City streets.

GOAL 14: To Provide and maintain a city-wide pattern of healthy street trees coincident with the city's reputation as “A City of Trees.” (See also, Policies 16.2 and 16.3).

GOAL 16: To preserve both the natural plant and animal life of the city as an exercise of responsible stewardship of the natural setting in which we live.

16.1: Consider natural constraints. Consider natural constraints and hazards in determining the location, type and intensities of development.

16.2: Protect “heritage” trees. Encourage the property-owner retention and protection of designated heritage trees, substantial native trees or any mature tree in excess of 12” caliper.

16.3: Maintain and strengthen the Tree Preservation Ordinance. Maintain and strengthen the Tree Preservation Ordinance, and permit development only when it demonstrates compliance with that ordinance.

16.4: Enforce tree replacement standards. Require that mature trees, where replacement has been permitted, must be replaced on a four-to-one, kind-for-kind basis.

16.5: Preserve native plant communities. Encourage preservation of the wide variety of plant communities in the hillside areas, communities that support a diversity of wildlife species. Discourage removal of native vegetation and watershed that “clearcuts” slopes and reduces important food resources and cover for wildlife.

16.6: Ensure ridgeline protection. Prohibit grading of any type of natural feature that could be considered a ridgeline, including but not limited to knolls, ridgetops or saddles.

16.8: Identify potential “Open Space Reserves”. Identify key resources and habitats of wildlife and acquire easements or land title to maintain natural open space reserves throughout the City.

16.9: Encourage land dedications. Encourage developer dedication of valuable hillside open space and wildlife habitat rather than payment of in-lieu fees for parkland acquisition.

16.13: Develop a preferred landscape palette. Encourage the use of native, water conservation and regionally appropriate landscaping.

GOAL 17: To protect sensitive ecological areas, substantial stands of trees and vegetation, geologic features, riparian areas and watercourses from unnecessary encroachment or destruction.

17.1: Ensure cumulative mapping of resources. Ensure the mapping of sensitive resources as they become identified, and incorporate this cumulative mapping in the General Plan by reference.

17.2: Ensure exploration of plan alternatives. Permit development in sensitive ecological areas only when less-destructive plan alternatives have been exhausted and mitigation is provided.

17.3: Ensure that sensitive resources be identified. Ensure that sensitive ecological areas, substantial stands of trees and vegetation, and notable topographic, geologic or hydrologic features in hillside areas be identified on all plans submitted for City review.

17.4: Establish a Monterey Hills Hillside Overlay Zone. Ensure the preservation of its natural habitat, open space, hillside beauty, and the protection of the abundant wildlife in the Monterey Hills Hillside Overlay Zone.

GOAL 19: To ensure that new development within hillside areas of South Pasadena does not adversely impact the character of the city.

19.4: Require adequate visual cohesion on all projects. Ensure that all hillside development blends with its surroundings by reducing building heights and massing, and by incorporating natural materials and native landscaping into project designs.

Historic Preservation Element

GOAL 3: To maintain elements of the natural landscape that contribute to the historic character of districts, neighborhoods and landmarks.

3.3: Promote maintenance of landscaping that is identified as a neighborhood feature or part of a landmark or designated district.

3.4: Encourage incorporation of natural features, existing trees, and archaeological sites into new development projects with sensitivity to insure their protection and public enjoyment.

GOAL 4: To assure continuity of the city's historic character, scale and small town atmosphere in all future construction.

4.1: Promote a style and appearance of new construction consistent with the high standards of the best existing comparable examples of architecture, scale and character of the neighborhoods in South Pasadena.

4.2: Develop and maintain comprehensive zoning provisions to permit the adaptive reuse of existing historical structures to new uses.

4.3: Develop and maintain design guidelines that promote architectural continuity for infill development within existing historic districts.

City of Pasadena – General Plan, updated 2004

OBJECTIVE 5 – CHARACTER AND SCALE OF PASADENA:

Preservation of Pasadena's character and scale, including its traditional urban design form and historic character, shall be given highest priority in the consideration of future development.

Policy 5.1 – Urban Design Principles: Apply citywide urban design principles to complement the scale and quality of the best of our architectural and urban design traditions.

Policy 5.2 – Urban Design Guidelines: Adopt urban design guidelines for each targeted development area and/or each identifiable design district in Pasadena.

Policy 5.3 – Character and Identity: Urban design programs, including principles and guidelines, shall reinforce the City's unique character, scale and identity.

Policy 5.4 – Neighborhood Character and Identity: Urban design programs, including principles and guidelines, shall recognize, maintain and enhance the character and identity of existing residential and commercial neighborhoods.

Policy 5.5 – Architectural and Design Excellence: The City shall actively promote architectural and design excellence in buildings, open space and urban design and shall discourage poor quality development.

Policy 5.6 – Human Values: Future development should reflect concern for the well-being of citizens – for workers, visitors, neighbors and passersby – and should embody the cultural values of the community; it should be accommodating, inspiring, inviting, and enduring.

Policy 5.7 – Enhanced Environment: Development should be shaped to improve the environment for the public; it should support the distinctiveness of the locality and region as well as the special characteristics of the existing fabric of the site's immediate surroundings.

Policy 5.8 – Imagination and Creativity: Encourage creative responses and solutions at many scales and levels of development on the part of the various peoples and cultures involved in designing and creating places.

Policy 5.9 – Contextual and Compatible Design: Urban design programs shall ensure that new development shall respect Pasadena's heritage by requiring that new development respond to its context and be compatible with the traditions and character of Pasadena, and shall promote orderly development which is compatible with its surrounding scale and which protects the privacy, and access to light and air of surrounding properties.

Policy 5.10 – Spatial Attributes: Promote development that creates and enhances positive spatial attributes of major public streets, open spaces, cityscape and mountain sight lines and important "gateways" into the City.

Policy 5.11 – Public Awareness: Promote development that creates and enhances positive spatial attributes of major public streets, open spaces, cityscape and mountain sight lines and important “gateways” into the City.

OBJECTIVE 9 – OPEN SPACE PRESERVATION AND ACQUISITION: Preserve and acquire open space in Pasadena in order to enhance the quality of Pasadena life.

Policy 9.1 – Open Space Corridors: Development of open space corridors, easement and acquisition programs and trails shall be established where feasible.

Policy 9.2 – Arroyo Seco: Continue and complete comprehensive planning for, and implementation of, plans for the Arroyo, including restoration of the natural area of the Lower Arroyo and the development of the Hahamongna Watershed Park Plan.

Policy 9.4 – Adequate Open Space: Provide an adequate total quantity and equitable distribution of public or publicly accessible open spaces throughout the City.

Policy 9.5 – Stewardship of the Natural Environment: Encourage and promote the stewardship of Pasadena’s natural environment, including water conservation, clean air, natural open space protection, and recycling. Encourage the use of native, water conserving and regionally appropriate landscaping.

OBJECTIVE 17 – RECREATION: Provide adequate recreation opportunities to all residents of the City.

Policy 17.4 – Urban Open Spaces: Encourage and require, where feasible, the incorporation of publicly accessible urban open spaces, including parks, courtyards, water features, gardens, passageways and plazas, into public improvements and private projects.

OBJECTIVE 18 – IMPROVED ENVIRONMENT: Improve the quality of the environment for Pasadena and the region.

G. FAIR OAKS/ORANGE GROVE SPECIFIC PLAN

The Fair Oaks/Orange Grove Specific Plan encourages actions to visually and physically unify the area, remove planning and zoning barriers to thinly capitalized and other start-up businesses, and encourage household/family-based entrepreneurial endeavors. The Specific Plan also encourages “livable community” concepts such as balanced mixed-use development, with retail, residential, and employment within walking distance of one another, stabilize neighborhoods with affordable housing opportunities and provide for the adaptive reuse of existing residential and commercial buildings to emphasize the historic uniqueness of Fair Oaks/Orange Grove and to foster a greater sense of community. Built-in flexibility and performance standards are envisioned to be part of the plan as well as expanded incentives for investment and development. Zoning Map Amendments Areas of the city may become the subject of zone change studies and amendments to the zoning code to implement the goals and policies of the General Plan. Other areas will require zone changes in order to achieve consistency with the General Plan and the Zoning Code.

Zoning Code Revision: The Zoning Code is the most important and effective tool for the implementation of the General Plan. The purpose of zoning is the establishment of land use controls intended to advance the policies of the General Plan.

3. GREEN SPACE/CONSERVATION ELEMENTS

The City will revise the mandatory Open Space Element of the General Plan, which will be called the “Green Space Element.” This element will incorporate all the existing plans prepared for open

space and park areas and will also include several new planning and implementation efforts. The Conservation Element will be revised in tandem with the Green Space Element. During the development of the Green Space Element, the need for new zoning designations for natural and recreational open space will be investigated.

The Lower Arroyo Seco has an existing Master Plan to govern development and protection of this unique part of the Arroyo. The Arroyo provides not only opportunities for recreation, but also a complex riparian ecosystem within the city limits. The Green Space Element will address development of recreational opportunities and protection and restoration of the ecosystem, while recognizing the important existing water supply and flood control functions of the area.

The following City parks near the proposed Project already have master plans:

- Brookside Park
- Brookside/Rose Bowl – Area “H”
- Central Park
- Memorial Park

The urban forest is a substantial asset contributing to the quality of life in Pasadena. Strategies to protect and enhance our urban forest will be an important component of the Green Space Element.

Citywide Design Principles

These Principles are a guide to development throughout the community and are intended to achieve the following:

- a. Buildings and landscapes particular to Pasadena- designs that complement their settings and enhance the community's unique character and special qualities.
- b. Development projects that contribute to an identifiable and coherent city form- a place that is both visually appealing and comfortable to use.
- c. Creative architectural solutions that acknowledge the surrounding context without direct mimicry of historical styles.

The principles are written to promote desirable qualities, and they should establish a dialogue among designers, developers, and the local community. They are applicable to all development projects subject to design review and may be supplemented by more detailed design guidelines for a particular project or a specified area within the City.

Design Qualities at the scale of the community:

- Community Identity: historic buildings; memorable building features
- Physical Connections: linked plazas, courtyards, street, alleys and passages
- Visual Relationships: mountain views; landmark views; axial and framed views
- Cultural Expression: historic districts; civic art

Visual Relationships: A community should take advantage of important views and vistas, and provide numerous opportunities for access to light and air.

Landscape Setting: A residential lot should provide an abundance of greenery.

City of San Gabriel – General Plan, adopted May 2004

Goal 8.1 Goal Create a verdant City by maintaining substantial trees, requiring developers to plant additional trees, and promoting the healthy maintenance of trees.

Target 8.1.1 The City shall work to plant additional trees throughout San Gabriel.

Goal 10.2. Build on the history and culture of San Gabriel in defining future design directions

Target 10.2.1 Establish improved design standards, streetscape and amenities for the Mission District as part of the economic revitalization strategy for that area.

Target 10.2.3 Require new landscape design features in the Mission District to employ native and ornamental plantings with strong historical symbolism.

Target 10.2.5 Adopt architectural standards for new construction in residential districts that reinforce existing patterns of development with respect to size, placement, setback, scale, and building envelope

Target 10.2.6 Adopt standards that require new fences to complement the architectural character and materials of the principal structure; and require the fences or walls to be offset by screening landscaping around the perimeter.

Goal 10.3. Create designs that live and breathe with San Gabriel's neighborhoods as they themselves live and breathe.

Target 10.3.1 Encourage a wider variety of architectural styles (except in historic districts) in new residential and commercial construction, consistent with the City's design guidelines. The City shall demand a higher level of architectural accomplishment by insisting on:

- More sensitive massing to reduce size and scale
- Better architectural articulation, variation in plane and texture (depth, light and dark)
- Stronger sense of rhythm in placement of windows and doors
- Better application of design and landscape elements to screen, modulate, and reduce mass
- Awareness of cultural precedents
- Use of natural and recycled materials
- Craftsmanship in execution of design and construction
- Incentives that improve, rehabilitate and protect existing structures, with building envelopes that reinforce the existing neighborhood scale and pattern. These incentives may include design standards, the Mills Act, façade easements, other tax credits, or relaxed standards for additions that meet neighborhood conservation guidelines.

Target 10.3.2 Avoid monumentality (mansionization) in residential development by encouraging designs that are more horizontal than vertical, are asymmetrically rather than symmetrically (classically) arrayed, and emphasize a refinement of building masses rather than a single large, rectangular building mass.

Target 10.3.3 Encourage the application of sustainable design principles and materials that do not consume irreplaceable resources. The City shall:

- Promote energy efficient construction;
- Support code modifications that encourage the use of recycled and regenerated materials;
- Orient new development to transit wherever possible;
- Permit “vertically integrated” mixed uses, meaning traditional patterns of development that permit people to live over their places of business;
- Promote traditional street patterns that allow high levels of pedestrian circulation and promote short walking distances to necessary services;
- Support the principles for sustainable development recommended by the American Planning Association’s policy guide, Planning for Sustainability. These practices include renewable and recycled building materials, energy efficient design, transit oriented development, neighborhood livability, pedestrian friendly design, drought tolerant and native plant materials, and other techniques for sustainable communities.

Goal 10.4 Design the necessary features of urban life so that they contribute to the community rather than detract from it.

Target 10.4.1. Require that all new utilities be placed underground unless impractical or costprohibitive, in which case a fee shall be paid to a Citywide fund to pay for future undergrounding of utility lines.

Target 10.4.2. Require that all new developments screen utility structures with a combination of landscaping, berming, walls, screens, or other features designed to blend with the architecture and landscape amenities of the site. For the purposes of this target, utility structures include utility boxes, traffic signal controllers, cable television boxes, Edison transformer boxes and vaults.

Goal 10.7 Recognize the integrity of San Gabriel’s most scenic corridors by designating them for special protection.

Goal 10.8 Designate focal gateways to the City; develop entry monumentation and landscape improvements at those locations.

Goal 10.10 Make the quality of landscape design a fundamental component of all decision-making for new development.

Target 10.10.1 Maintain on call landscape architectural expertise to guide City staff and Commissions in good landscape design practice.

Target 10.10.2. Establish a broad set of Citywide landscape design guidelines to improve the quality of designs.

Target 10.10.3. Require landscape remediation plans for older landscaping in existing development centers as a condition of new construction, substantial rehabilitation, remodeling, or fundamental changes in use.

Target 10.10.4. Require that all new ground signs be accompanied by a planting plan showing how landscaping will be used to soften and beautify the sign.

Target 10.10.5 Require that all new development meet certain minimum standards, including:

- Preparation of the landscape plan by a licensed landscape architect;
- Show and reflect the landscape character of the environment surrounding the property.

Goal 10.11 End sign clutter in San Gabriel

Target 10.11.1 Revise the sign ordinance to simplify, improve and strengthen the amortization process. Develop City sign guidelines by 2005 to provide improved design guidance to the development community.

Target 10.11.3 Require that master sign programs be submitted, reviewed and approved by the City for all multi-tenant developments.

Goal 10.15 Establish engineering standards that reinforce good streetscape and good urban design.

Target 10.15.3 Design traffic calming features to be pleasing to the eye and an enhancement to neighborhood character by incorporating landscaping, lighting and other features.

Target 10.15.4 Adopt engineering standards and street plans that call for full articulation of new street construction with the following design features:

- Landscaped medians
- Pedestrian amenities
- Enhanced intersection design treatments
- Ornamental lighting and traffic controls
- Street tree planting
- A traditional landscaped parkway

Goal 11.9 Preserve and protect our cultural landscapes from damage and degradation.

Target 11.9.1 Protect and preserve bridges and other engineering features of merit.

Target 11.9.2 Protect and preserve historic and cultural landscapes.

City of San Marino – General Plan, adopted October 2003

Land Use Goals, Objectives and Policies:

9. Ensure high quality design characteristics of existing and proposed structures in San Marino.

10. Ensure that new development is compatible with established

Objective L.7: Trees and tree trimming – San Marino's mature urban forest should be protected.

Policies:

- Require city permits prior to tree removal from private property.
- Require replacement trees where appropriate on private and public property.

Community Services Goals, Objectives and Policies:

1. Keep public infrastructure systems in San Marino operational, safe, and aesthetically pleasing.

Objective CS.25: Ensure that utility poles and facilities are operational, safe and aesthetically pleasing.

Policies:

- Provide for prompt corrective action, maintenance, or undergrounding of utilities, where appropriate.
- Apply for funding from Southern California Edison where appropriate for the undergrounding of utilities.

Natural Resources Goals, Objectives and Policies:

1. To maintain attractive tree-lined residential streets and other public areas.
2. To have well designed, well maintained, and mature landscaping on residential properties.
3. To properly prune trees to create a tree canopy that does not adversely impact fire safety.

Objective NR.14: Maintain existing urban forest.

Policies:

- Require City review and approval for the removal of street trees.
- Plant replacement street, median, and park trees of an appropriate size and species, in a timely manner.
- Implement a tree-pruning program that includes pruning of street trees on a regular cycle by tree experts.

Objective NR.15: Regulate removal and alteration of trees on private property.

Policies:

- Maintain a tree preservation ordinance that requires discretionary review of tree removal on private property.
- Require replacement trees when mature trees are removed, if appropriate.
- Provide educational materials that explain good tree maintenance practices.

Objective NR.16: Protect vegetation in hazard zones.

Policy:

- Maintain a program to educate and assist residents in fire hazard zones about establishing defensible space on their properties.

Objective NR.17: Ensure that new construction projects have landscaping that is compatible with the surrounding neighborhood.

Policy:

- Require a landscape plan for all new construction projects.

VI. VISUAL ENVIRONMENT OF THE PROJECT STUDY AREA**A. Project Setting**

The regional landscape establishes the general visual environment of a project. The specific visual environment upon which this assessment focuses is determined by defining landscape units and the project viewshed.

The proposed Project's study area includes unincorporated areas of Los Angeles County and the cities of Los Angeles, Monterey Park, Alhambra, South Pasadena, Pasadena, San Gabriel, San Marino, El Monte, Temple City and Arcadia.

The project area is located between State Route 2 (SR 2) and Interstates 5, 10, 210 and 605 (I-5, I-10, I-210, and I-605, respectively) in east/northeast Los Angeles and the western San Gabriel Valley. The study area for the State Route 710 (SR 710) North Study as depicted on Figure 3.1 is approximately 100 square miles and generally bounded by I-210 on the north, I-605 on the east, I-10 on the south, and I-5 and SR 2 on the west.

The northern terminus of the I-710 is located at Valley Boulevard in Alhambra, just north of the I-10. It is the intent of the proposed Project to meet the identified needs of the proposed Project's area to improve efficiency and reduce congestion.

B. Regional Setting

The Greater Los Angeles Basin is a coastal sediment-filled plain located at the north end of the Peninsular Ranges province in southern California and contains the central part of the city of Los Angeles as well as its southern and southeastern suburbs (both in Los Angeles and Orange counties). It is approximately 50 miles long and 25 miles wide, bounded on the north by the Santa Monica Mountains and San Gabriel Mountains (including the Elysian, Repetto, and Puente Hills), on the east by the Santa Ana Mountains, and on the south by the Pacific Ocean and the Palos Verdes Hills, along the coast. The confluence of the Los Angeles and Rio Hondo rivers is the center of the basin. The low land surface slopes gently south (or seaward), but it is interrupted by the Coyote Hills near the northeast margin, by a line of elongated low hills and mesas to the south and west that extends from Newport Bay northwest to Beverly Hills, and by the Palos Verdes peninsula at the southwest extremity.

Los Angeles County is geographically one of the largest counties in the nation. The County stretches along 75 miles of the Pacific Coast of Southern California and is bordered to the east by Orange and San Bernardino Counties, to the north by Kern County, and to the west by Ventura County. Los Angeles County also includes the offshore islands of Santa Catalina and San Clemente.

The unincorporated areas of the County comprise 2,656.6 square miles of Los Angeles County's 4,083.2 square miles, equivalent to approximately 65% of the County's total land area. The majority of unincorporated County land is located in the northern part of the county and includes expansive open space within the Antelope and Santa Clarita Valleys. The unincorporated areas of the County consist of 124 separate, noncontiguous land areas. These areas in the northern part of the County are covered by large amounts of sparsely populated land and include the Angeles and Los Padres National Forests and the Mojave Desert. The unincorporated areas of the southern portion of the County consist of 58 communities, located among the other urban incorporated cities in the County, which are often referred to as the County's unincorporated urban islands. The County's southwestern boundary consists of the Pacific Ocean coastline and encompasses the Santa Catalina and San Clemente Islands.

Los Angeles County is heavily urbanized, and most of the undeveloped land that remains is within unincorporated areas. Unincorporated areas within the County are climatically and ecologically diverse and include coastal, mountain, forest, and desert ecosystems. There are a number of wildlife corridors in the County that connect the Mojave Desert, San Gabriel Mountains, Santa Susana Mountains, Santa Monica Mountains, and Puente Hills with other core areas of wildlife habitat. The County has jurisdictional control over numerous rivers, creeks, and flood control channels and other rights-of-way.

The Arroyo Seco Parkway National Scenic Byway watershed begins in the San Gabriel Mountains and passes through the communities of Pasadena, South Pasadena, and Northeast Los Angeles. The Arroyo unites a highly diverse region and serves as the focal point of a shared identity. The Arroyo Seco proceeds on, passing under the SR 134, and crosses at the southern boundary of Pasadena. The channel continues along the western boundary of South Pasadena, then into northeast Los Angeles flowing southeast of the Verdugo Mountains and Mount Washington.

C. Project Viewshed

A viewshed is comprised of all the surface areas visible from an observer's viewpoint. The limits of a viewshed are defined as the visual limits of the views from the proposed Project. The viewshed also includes the locations of viewers likely to be affected by visual changes brought about by the Build Alternative's features.

The SR 710 is located within the Los Angeles Basin, and defined as south of the Verdugo and San Gabriel Mountains and northwest of the Santa Ana Mountains.

The Verdugo Mountains are a small mountain range located south of the San Gabriel Mountains in Los Angeles County. The Verdugo Mountains are located within the cities of Glendale, Burbank and Los Angeles. These mountains are a 4,000-acre block of open space, owned by the City of Glendale, City of Burbank, City of Los Angeles, California Department of Parks and Recreation, and Santa Monica Mountains Conservancy.

The Los Angeles Basin is a sediment-filled plain located within the city of Los Angeles and continues on through the suburbs of Los Angeles and Orange Counties. The basin is up to six miles deep. According to the U.S. Geological Survey (USGS) website, there are more than ten million people in the Greater Los Angeles area who depend on ground water from the Los Angeles Basin.

The San Gabriel Mountains are located in both Los Angeles and San Bernardino Counties. The mountain range forms a barrier between the Greater Los Angeles area and the Mojave Desert. The foothills are grassy and the mountain terrain is forested with oak, pine, and cedar at higher elevations. There are substantial snowfalls on the mountains in winter with average yearly depths of ten feet or more.

The Santa Ana Mountains are located along the coast of southern California between Orange and Riverside Counties. These mountains are located less than 20 miles from the Pacific Ocean.

The viewers within the project viewshed will experience a number of different visual experiences while traveling the roughly 7 to 12 miles (depending on the Build Alternative) along the proposed project route from one point to another. These views would include examples where a wide expansive slope may be seen in the foreground with flat landforms of various urban uses seen in the middle ground and immediate background. When viewed from other locations along the route, the view may exhibit high traffic and urban uses in the foreground with the views toward the middle ground and background limited by structures and/or mature vegetation. Views from

recreation areas are likely to include flat, level topography in the foreground and middle ground with residential, commercial/retail and/or vegetation in the background.

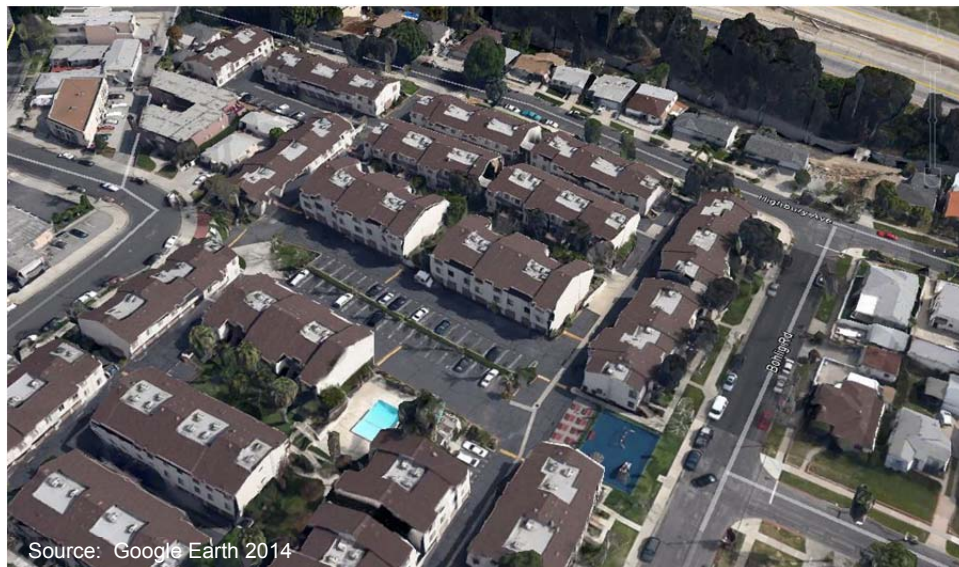
In addition, many of the viewers may see the in the upper distant background views of the Verdugo Mountains (with peaks reaching as high as 3140') and/or the San Gabriel Mountains (with multiple peaks rising up to 6540' high).

The density of the objects within the viewshed will vary based upon the location of viewer and what landscape unit's the viewer is observing. Residential viewsheds would run a range from low density, single-family units to high density apartment complexes. Recreation and Industrial units would be primarily low density viewsheds. Education units could range from low density elementary schools to high density university campuses. Commercial/Retail units would generally be high density viewsheds with multiple business buildings grouped together. Freeway units would range from low density to high density as the road traverses the various other landscape units.

D. Landscape Units

A landscape unit is a portion of the regional landscape and can be thought of as an outdoor room that exhibits a distinct visual character. A landscape unit will often correspond to a place or district that is commonly known among local viewers. Each photograph illustrating the landscape unit description is only one representative example from along the proposed project route within the study area.

Residential



The residential landscape unit applies solely to residential households. This unit includes views of the proposed Project from nearby residences, from East Los Angeles to Pasadena. It is represented by Key Views 2-LRT, 14-LRT, 16-LRT and 18-LRT. This unit includes areas zoned for residential land use, rather than industrial or commercial areas and includes single-family homes, multiple family housing (such as apartments, townhouses, and condominiums), and mobile homes. Housing styles and residential landscaping may vary substantially between residential areas. Typical landscaping found in residential areas vary from large mature street trees to individually maintained front yards. While the landforms for these areas vary to a minor degree, the predominately found landform is flat with very little acute land shape changes. Most variances to land shapes are gradual and are perceptible from a distance. Due to this, viewers within this landscape unit will experience little changes.

Recreation/Open Space



The recreation/open space landscape unit applies to parks, golf courses, other recreational/leisure-time facilities and undeveloped open areas. Trees such as California Pepper, Canary Island Pine, Eucalyptus and Sweetgum are prevalent in this unit. This landscape unit is represented by Key Views 3-LRT, 5LRT, and 26-FWY. Most areas within this landscape unit are flat to facilitate structured play such as sporting activities. Minor visually flowing landforms are experienced in specific areas. There are no major water features found within these areas. There are some open spaces adjacent to the freeway which are level with some sloping areas near the California State University, Los Angeles campus.

Education



The education landscape unit is characterized by Key View 11-LRT, 22-FWY and 28-FWY, which are located adjacent to California State University, Los Angeles (Cal State LA) and Maranatha High School, respectively. Numerous trees, shrubs, and groundcovers are planted within the facilities. Landforms within this unit vary from flat to that with various levels. Many grade, middle and high school campuses have flat, even topography. California State University, Los Angeles features landforms which vary in topography with a terraced effect close to the freeway.

There are 13 educational institutions (including Cal State LA and Maranatha High School) that have proximity to SR 710. Although most of them are located within 0.2 miles of the proposed freeway, soundwalls and surrounding buildings contribute to obstruction of the views to the freeway. These schools include:

- o CSEA Charter School, East Los Angeles
- o Morris K. Hamasaki Elementary School, Los Angeles
- o Brooklyn Avenue Elementary School, Los Angeles
- o California State University, Los Angeles
- o Emery Park Elementary School, Alhambra
- o Institute for the Redesign, Alhambra
- o South Pasadena Middle School, South Pasadena
- o Holy Family School, South Pasadena
- o South Pasadena High School, South Pasadena
- o Marengo Elementary School, Alhambra
- o Total Education Solutions, South Pasadena
- o Sequoyah School, Pasadena
- o Maranatha High School, Pasadena

Industrial



The industrial landscape unit includes manufacturing and storage facilities. Various trees, shrubs, and groundcovers are planted within the area and differ by owners. There is little foot traffic in these areas. Workers' viewer exposure is very limited and the buildings they work in have little to no viewer exposure once inside. Due to these factors, no key views were selected to represent this unit. A majority of industrial land uses within this landscape unit are flat to moderate topography.

Commercial/Retail



The commercial/retail landscape unit applies to office building complexes (including government buildings), business parks with small office areas and larger back warehouses, individual retail stores, and small strip-center retail shopping areas. Various trees, shrubs, and groundcovers are typically planted within each building's/center's area and differ by owners. Facilities within this landscape unit are mainly found near major transit access points and are, therefore, at mainly flat landform areas. This type of topography also accommodates parking for automobiles which are required for these uses. This landscape unit is represented by Key Views 1-LRT, 6-LRT, 7-LRT, 8-LRT, 12-LRT, 13-LRT, 15-LRT, 17-LRT, 18-LRT, 19-BRT, 20-BRT, 24-FWY, 25-FWY, 27-FWY, and 30-FWY.

Freeway



The two separate termini of the SR 710 at W Valley Boulevard in Alhambra and at California Boulevard in Pasadena within the study area represent the Freeway Landscape Unit. Typically, drought-tolerant planting and irrigation is found within state right-of-ways. Groundcover may be plants or inorganic materials.

Guardrails, advertisement signs, light poles, and utility poles, towers and overhead power lines can be seen within the I-710 right-of-way. The freeway landscape unit also contains various types of landscapes. This landscape unit is represented by Key Views 2-LRT, 4-LRT, 9-LRT, 10-LRT, 21-FWY, 23-FWY, and 29-FWY. The very nature of the freeway landscape unit is flat and/or has very gradual topographic changes. However landforms immediately adjacent to the freeway alignments can vary from flat to large and steep slopes.

The selected Key Views primarily represent views from public areas where the built features of the proposed Project would most likely be visible. Since the BRT and LRT Alternatives attempted to avoid disruption of and to residential areas as much as possible, the amount of Key Views representing residential landscape units is in proportion to the Key Views representing other impacted landscape units. In some instances, a Key View will overlap and represent two landscape units (e.g., Key View 9-LRT can represent both freeway and commercial/retail landscape units).

VII. EXISTING VISUAL RESOURCES AND VIEWER RESPONSE

A. FHWA Method of Visual Resource Analysis

Identify Visual Character – Visual character is descriptive and non-evaluative, which means it is based on defined attributes that are neither good nor bad in themselves. A change in visual character cannot be described as having good or bad attributes until it is compared with the viewer response to that change. If there is public preference for the established visual character of a regional landscape, and resistance to a project that would contrast that character, then changes in the visual character would be evaluated.

Assess Visual Quality – Visual quality is evaluated by identifying the vividness, intactness and unity present in the viewshed. The FHWA states that this method should correlate with the publics' opinions of visual quality well enough to predict those judgments. This approach is particularly useful in highway planning because it does not presume that a highway project is necessarily aesthetically displeasing. This approach to evaluating visual quality would also help identify specific methods for neutralizing each adverse impact that may occur as a result of a project. The three criteria for evaluating visual quality would be defined as follows:

Vividness (V) is the visual power or memorability of landscape components as they combine in distinctive visual patterns.

Intactness (I) is the visual integrity of the natural and man-built landscape and its freedom from encroaching elements. It can be present in well-kept urban and rural landscapes, as well as in natural settings.

Unity (U) is the visual coherence and compositional harmony of the landscape considered as a whole. It frequently attests to the careful design of individual man-made components in the landscape.

B. Existing Visual Resources

1. Existing Visual Character

Residential Landscape Unit: The Residential Landscape Unit consists of multiple communities in cities that are composed of long-term, single family and multi-family housing units. The form, line, color, techniques, and materials depend on each household's preferences of design features.

Recreation Landscape Unit: Depending on the type of recreational properties, visual features such as topography, water elements, vegetation, land area, geology, and structures characterize this landscape unit. It hosts leisure and relaxation activities.

Education Landscape Unit: This landscape unit is represented by institutional facilities exhibited by the use of unified materials and amenities such as walkways, lighting, buildings, and site furniture. Open spaces and landscaping associated with the education facilities are incorporated into this landscape unit.

Industrial Unit: Industrial buildings are relatively large in size and low-lying where there are few viewers or views that would be affected. These buildings also generally lack windows. Industrial areas are generally characterized with low levels of existing color, texture, balance, proportion and otherwise low visual aesthetics.

Commercial/Retail Landscape Unit: Commercial buildings are generally located in business parks with small office areas. Office buildings are typically small- to medium-sized (including government office complexes such as the Los Angeles County Sheriff's Department and in Monterey Park). The retail buildings are typically small strip center style. These buildings are typically multiple stories.

Freeway Landscape Unit: The project area is located between the SR 2 and the I-5, I-10, I-210, and I-605. Freeway structures, signage, lighting, landscaping, and vehicles compose this unit which is located at the two ends of the project where the I-710 currently terminates at Valley Boulevard in Alhambra and the proposed northern portion of the SR 710 that would extend from the I-210 to California Boulevard in Pasadena.

2. Existing Visual Quality

Three criteria were used to evaluate the visual quality for each Key View. Each of these criteria was assessed for the overall general view perspective.

Vividness: The assessment for this criteria stems from the amount or lack of memorable visual elements within the view. The existence of a single large element which dominates the view is considered to have memorability. A single mountain would be an example of a single memorable element. A grouping of multiple elements would also serve to a higher degree as vivid. A cluster of similar trees would be an example. The key in this criteria is the greater the visual mass, whether single or in a grouping, the greater the memorability. A series of trees spaced apart but forming a line along a street would offer a vivid scene but to a lesser degree. Individual visual elements spread across the entire view plain with no pattern would be rate a lower vividness assessment. The more memorable the view is, the higher vividness rating it will have.

Intactness: Intactness is a measure of a specific view with encroaching visual elements. These encroaching elements could be power lines in the background, a utility box in the foreground, or a fence running through the middle ground. While these encroachments are usually created by man-made objects, it is possible for a predominately man-made environment to have natural intrusions which would lower the intactness rating. An example of this would be a highly urban view of Manhattan from the air. In this scene dominated by cityscapes, buildings and streets, the introduction of Central Park would actually be an encroachment of the urban view by the natural Central Park. The less visual intrusions that are in the view, the higher the intactness rating will be.

Unity: Unity is the characteristic of a view that possesses a visual rhythm or pattern which creates balance. Balance in a view would take place when there are equal visual masses of background sky to ground in the lower half of the view. Balance can also take place at different axis such as lower right to upper left. Balance can be formed by visual masses or the presence of groupings of elements. For example, a grouping of trees toward the bottom of the view can balance a single mass of sky above. Patterns or rhythms created by visual components can also create balance in a view. A regularly spaced row of trees or light fixtures can create patterns. When these patterns or rhymes stretch from one quadrant of the view to another, this can unite the view which would otherwise be disjointed and create unity. The greater the balance of a view, the higher it's unity rating.

For the purposes of this assessment, the distance limit to assess visual quality has been set at 0.2 miles within the SR 710 North Study area. This distance is within a reasonable range for viewers to see to the freeway, light rail, and rapid bus transit. Beyond this distance, the Project changes would be difficult to see.

Residential Landscape Unit: The overall visual quality ranges from moderately low to high based on the various neighborhoods throughout the different cities. The vividness is low because the memorability of the landscape components is low. The visual intactness and compositional unity of the natural and built landscape as a whole is considered moderate.

Recreation Landscape Unit: The overall visual quality is moderate. The vividness consists of the distinctness and memorability of the natural landscape. The intactness is low within the unit as there are only a few utility power lines encroaching. The overall balance contributes to a moderately high unity.

Education Landscape Unit: The overall visual quality is low. Vividness is low due to the limited diversity of the landscape. Intactness is low due to the encroachment of walls, light poles, fences and utility power lines from the background. Unity is low as several elements (fences, walls, playgrounds, buildings, and other facilities) are out of balance.

Industrial Unit: The overall visual quality is low. There are no memorable landscape components that would contribute to the visual quality of the vividness. Above-ground utility and power lines, lightings, and other signage result in low intactness. The unity of the urban landscape is moderately low due to unharmonious patterning of buildings, warehouses, cargo, vehicles, parking lots, and other facilities.

Commercial/Retail Landscape Unit: The overall visual quality is low to moderately low. There are no memorable landscape components that would contribute to the visual quality of the vividness. Above-ground utility and power lines, lightings, and other signage result in moderately low intactness. The unity of the urban landscape is also moderately low due to buildings, vehicles, gas stations, parking lots, and other facilities.

Freeway Landscape Unit: The overall visual quality is moderately low. The vividness is low because there is minimal visual power of the landscape components. Intactness is low because highway posts, light poles, and also utility lines are major encroachments. The unity is moderate as the highway is the main component balancing the view.

C. Types of Viewers

Any person with a view to the Build Alternatives would be considered a viewer. Because it is not feasible to analyze each of these viewers, it is necessary to define viewers in selective groups in a representative manner. These viewer groups with visual access to the Build Alternatives are motorists, pedestrians, cyclists, residents, park and recreational facility users, employees and users of commercial and industrial facilities. Average viewer groups within the project area are identified as follows.

Pedestrians in Residential Landscape Units

This group of viewers is mainly occupants of residential units within view of a given Key View. While most residents do not see much of the existing SR 710, local residents play an important role in this visual impact assessment. This user group is expected to have the most substantial amount of viewer sensitivity regarding the Build Alternatives. Viewers in this category tend to be walking or standing in or around these units. From this perspective, these viewers would have

long duration of viewing. Plus this group would be “protective” of their views because of ownership of their dwelling units. From these standpoints, the viewers in this category would exhibit a high level of viewer response to the visual changes.

Motorists in Residential Landscape Units

Motorists driving along the residential streets experience views for a shorter duration than pedestrians in residential areas as they would be travelling at faster speeds and should be focusing their attention on the road in front of them. These viewers would be considered to be moderate in their response to visual changes.

Pedestrians in Recreation/Open Space Landscape Units

Viewers in this category are at the recreational facilities and open spaces with the expectation of experiencing a comfortable and enjoyable environment. Their primary goal is to relax or take part in other recreational activities such as picnicking, strolling or structured game play. Traveling through, to or from the viewer's location is not the main intent. A negative view from these areas would affect their positive experience. These criteria would contribute to viewers in these areas to have a high viewer response.

Pedestrians in Educational Landscape Units

This set of viewers will be focused on activities related to studies and/or teaching. However these individuals would not be moving at a rapid rate and would experience views for a longer duration of time. Additionally in a manner similar to recreation facilities, viewers in this category would expect a pleasant environment and would be reactive to any negative visual changes. Viewers within educational facilities would possess a moderately high responses to changes in views.

Pedestrians and Motorists in Industrial Landscape Units

Viewers located in these areas would be focused on going to and from the businesses. They will experience some visual elements, but only for a short duration as they drive to their destination. Once parked, motorists become pedestrians as they exit their vehicles and walk into their workplace. Once inside the business, views to the outside would be very limited as many industrial buildings do not have windows that offer employees views of the outside. This group of viewers would be considered to have a moderately low response to visual changes.

Pedestrians in Commercial/Retail Landscape Units

Viewers located in these areas would be focused on going to and from the businesses or working at the businesses. They will experience some visual elements but for a short duration. Also depending upon the nature of the business, the viewer may have longer view durations especially if the business involves some manner of food or beverage consumption. This group of viewers would be considered to have a moderately high response to visual changes.

Motorists in Commercial/Retail Landscape Units

Viewers in this category have similar views of the surrounding visual elements to the pedestrians in the same locations. However these viewers would be mainly focused on going to or from the businesses they are visiting. Additionally they would be intent on finding parking spaces. Since the act of driving is a means to get to the businesses, the viewer response to visual changes in this category would be considered moderately low.

Motorists in Freeway Landscape Units

Motorists driving along the freeway normally experience views of elements in the foreground, middle ground and background over extended periods of time as drivers navigate longer distances on freeways. Changes to existing street scenes or memorable visual elements in the background are easily viewed by this group. However, as the freeway units terminate shortly after entering the project area, these viewers would not be within this unit for a length of time long enough to have the opportunity to visually experience many elements. These viewers would be considered to have a low response to visual changes.

Viewers in Industrial Landscape Units

Industrial and warehouse workers are considered the group that would be least impacted by visual changes to the Build Alternatives. The lack of windows in industrial buildings obstructs the viewers from seeing the landscape unit outside of their buildings. The activities and values associated with industrial areas are associated with little to no viewer response. No key views were assessed in this landscape unit after initial assessment of the lack of viewer response and ascertainable lack of impact.

D. Methods of Predicting Viewer Response

Viewer response is composed of two elements: viewer sensitivity and viewer exposure. These elements combine to form a method of predicting how the public might react to visual changes brought about by a highway similar to the proposed Project.

Viewer sensitivity is determined by the viewer's activity, awareness, and visual preference (such as local values and cultural importance). Activities a viewer would be participating in while viewing the project would determine how concentrated the viewer is on the view. A narrower view would increase the viewer's awareness, catch the viewer's attention and make the viewer look at the view more closely and at greater length. Local values and goals may confer visual importance on landscape components and areas that would otherwise appear unexceptional in a visual resource analysis. Even when the existing appearance of a project site is uninspiring, a community may still object to projects that fall short of its visual goals. Analysts can learn about these special resources and community aspirations for visual quality through citizen participation procedures, as well as from local publications and planning documents.

Viewer exposure is typically assessed by measuring the number of viewers exposed to the resource change, duration of their view, speed at which the viewer moves, and position of the viewer. Longer duration, closer distance, or less movement by the viewers would result in higher viewer exposure. High viewer exposure heightens the importance of early consideration of design, art, and architecture and their roles in managing the visual resource effects of a project.

E. Existing Viewer Response

Viewer response refers to the degree to which people respond to what they see. Viewer response does not imply one's positive or negative reaction to the proposed change.

Travelers

This viewer group is likely to be users such as commuters, passengers, school bus drivers, truck drivers, motorcyclists, and tourists. Among these sub-groups, passengers have higher viewer response since they are not required to focus their views on the traffic ahead of them. All individual views on the Build Alternatives typically have shorter durations due to the constant

movement of the viewers. View duration would be different based on the time, weather, season, and traffic conditions.

Local Communities

This viewer group involves a larger variety of viewers. They vary from residents, pedestrians on local streets, users on bicycle trails and other recreational facilities, and employees and visitors in commercial, office, retail, and industrial. People do not prefer the view of new transit structures in general; they are generally perceived as large in comparison to other surrounding elements and not visually appealing. All individual views of the Build Alternatives in this viewer group are typically longer in duration due to the slower speeds while walking on local streets and the longer length of activities in which people engage. View duration would be different based on the time, weather, season, and traffic conditions.

VIII. VISUAL IMPACT ASSESSMENT

The process used in this visual impact assessment generally follows the guidelines outlined in the Federal Highway Administration's (FHWA) March 1981 publication *Visual Impact Assessment for Highway Projects*. As required by the California State Department of Transportation (Caltrans), this visual impact assessment has been performed under the direction of a California-licensed landscape architect.

Six steps required to assess visual impacts are performed. They are as follows:

1. Define the project setting and viewshed.
2. Identify Key Views for visual assessment.
3. Analyze existing visual resources and viewer response.
4. Depict the visual appearance of project alternatives.
5. Assess the visual impacts of project alternatives.
6. Propose methods to neutralize adverse visual impacts.

A. Method of Assessing Project Visual Impacts

The visual impacts of the proposed Project are determined by assessing the visual resource change due to the Build Alternatives and predicting viewer response to that change.

Visual resource change is the average of the change in visual character and change in visual quality. It should be noted that a change in visual character does not necessarily create a change in the visual quality and vice versa. In fact, a change in either, both or neither could occur. The first step in determining visual resource change is to assess the compatibility of the Build Alternatives with the visual character of the existing landscape. The second step is to compare the visual quality of the existing resources with projected visual quality after the project is constructed.

The viewer response to a Build Alternatives' change is the average of viewer exposure and viewer sensitivity to the Build Alternatives as determined in the preceding section.

The resulting level of visual impact is determined by averaging the severity of resource change with the degree to which people are likely to oppose the change.

B. Analysis of Key Views

Built Alternatives - Evaluation of Simulation

For the purposes of this report, visual impact assessments were conducted by evaluating resource change and viewer response using Key View photo-simulations.

The visual impact ratings for the proposed Build Alternatives are based on the changes from the existing conditions to the conceptual ideas of what the Build Alternatives' views would look like with the proposed changes (based upon Caltrans' design standards). The visual simulations in this study apply conceptual designs of the Light Rail Transit (LRT), Bus Rapid Transit (BRT), and Freeway Tunnel (FWY) Build Alternatives to the 30 Key Views to show the anticipated post-project features, visual characteristics, and surrounding conditions. Each Key View was chosen to represent a particular landscape unit and in a location which showed a high-profile view that an

end-user would frequently encounter. The TSM/TDM Alternative is a traffic management system using the existing traffic controls, new signage, new lanes in existing roads and new roads with little visual impacts due to the low profile (ground level) nature of these improvements and the low perspective of potential viewers.

Overall maps of the Key View locations are shown in Figures 8-1 (BRT), 8-2 (LRT), and 8-3 (Freeway Tunnel).

Figures 8-4, 8-5, and 8-6 (BRT, LRT, and Freeway Tunnel, respectively) illustrate the locations of the various landscape units along the proposed SR 710 route.

Visual Quality Evaluation

Table 8-1, "Visual Quality for Existing Conditions and for Proposed Build Alternatives," provides the visual quality ratings of the Key Views. The overall visual quality rating from 1.0 to 7.0 (or very low with poor experience to very high with good experience) is an average of the three criteria ratings: vividness, intactness, and unity. The use of these evaluative criteria helps to establish an existing baseline to evaluate effects on visual quality.

Change in Visual Quality

The difference between the Existing Visual Quality rating and the Build Alternative's Visual Quality rating is called the "Change in Visual Quality." Figures 8-67, 8-69 and 8-71 are summaries for each Key View comparing the existing overall visual quality to the overall visual quality resulting from the Build Alternatives. Table 8-67 shows the BRT Alternative, 8-69 shows the LRT Alternative, and 8-71 shows the Freeway Tunnel Alternative. No figure was prepared for the TSM/TDM Alternative as there would be no changes to show – the TSM/TDM Alternative would not change the visual quality due to its lack of vertical and above grade construction.

When the Build Alternative's Visual Quality bar is shown to be higher than the bar for the Existing Visual Quality's bar, then the assessment for the Build Alternative at that Key View has determined that the visual quality improves at the Key View location for that Build Alternative. When the Build Alternative's Visual Quality bar is shown to be lower than the bar for the Existing Visual Quality's bar, then the assessment for the Build Alternative at that Key View has determined that the visual quality declines at the Key View location for that Build Alternative. While the actual calculated number can be negative or positive, for the purposes of identifying the basic amount of change, the "Change in Visual Quality" is calculated using zero (0.0) as the baseline and then is categorized as follows:

Neutral:	0.0
Minor:	0.1 to 0.6
Medium:	0.7 to 1.3
Major:	1.4 to 2.0

Visual Character Evaluation

In addition to the visual quality analysis, visual character for the existing views and proposed Alternatives was evaluated. Compatibility between the proposed Alternative and the existing view was rated on a scale from -3.0 to 3.0 where -3.0 is very poor compatibility, -2.0 is poor compatibility, -1.0 is moderately poor compatibility, 0 is no notable visual change, 1.0 is moderately good compatibility, 2.0 is good compatibility, and 3.0 is very good compatibility.

Resource Change Evaluation

Resource change was determined by averaging the visual character compatibility and visual quality change. Figure 9-3 shows visual character compatibility ratings, visual quality ratings, and the resulting resource change. A range from -5.0 to 5.0 was possible, -5.0 being high negative resource change and 5.0 being high positive resource change.

Viewer Response Evaluation

Viewer groups were identified, and viewer exposure, viewer sensitivity, and viewer response were analyzed for each Key View. Ratings from 1.0 to 7.0 were assigned for viewer exposure and viewer sensitivity where 1.0 was very low and 7.0 was very high. The average of these ratings gives the viewer response rating. Figure 9-2 shows these ratings for each key view.

Visual Impact Evaluation

Visual impact was determined by averaging the resource change and viewer response. Impacts could be based on positive or negative resource change. When resource change was negative, an impact based on a negative resource change was categorized as needing possible avoidance, minimization, or concealment measures. Figure 8-68 summarizes the resource change, viewer response, and visual impact ratings for BRT key views. Figure 8-70 summarizes the resource change, viewer response, and visual impact ratings for LRT key views, and figure 8-72 summarizes the resource change, viewer response, and visual impact ratings for Freeway key views. A positive number represents a potential improvement in the visual setting with the implementation of the particular Build Alternative.

Impacts associated with the TSM/TDM Alternative would be very low. This alternative involves traffic studies to modify traffic signal cycles to improve traffic flow and the addition of a length of a few traffic lanes at existing ground level. The results of this alternative would likely be programming changes for the synchronization of existing traffic lights and would most likely not involve the addition or removal of utility equipment; therefore causing minimal physical changes to the existing environment of and little visible impact on the various Key Views of the project. Therefore, figures were not created for the TSM/TDM Alternative.

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Table 8-1: Visual Quality for Existing Conditions and for Proposed Build Alternatives

Key View #	Existing Visual Quality				Visual Quality for BRT Alternative				Visual Quality for LRT Alternative				Visual Quality for Freeway Tunnel Alternative				Change in Visual Quality from Existing to BRT Alternative	Change in Visual Quality from Existing to LRT Alternative	Change in Visual Quality from Existing to Freeway Tunnel Alternative
	Vividness (V)	Intactness (I)	Unity (U)	Existing Visual Quality (E) $([V+I+U]/3)$	Vividness (V)	Intactness (I)	Unity (U)	Build Alternative Visual Quality (P2) $([V+I+U]/3)$	Vividness (V)	Intactness (I)	Unity (U)	Build Alternative Visual Quality (P1) $([V+I+U]/3)$	Vividness (V)	Intactness (I)	Unity (U)	Build Alternative Visual Quality (P2) $([V+I+U]/3)$			
1-BRT	3.0	3.0	4.0	3.3	3.0	3.0	4.0	3.3	-	-	-	-	-	-	-	-	0.0	-	-
2-BRT	4.0	4.5	4.0	4.2	4.0	4.5	4.0	4.2	-	-	-	-	-	-	-	-	0.0	-	-
3-LRT	2.5	3.5	3.5	3.2	-	-	-	-	5.0	4.0	4.0	4.3	-	-	-	-	-	+1.1	-
4-LRT	3.0	4.0	4.5	3.8	-	-	-	-	4.5	3.5	4.0	4.0	-	-	-	-	-	+0.2	-
5-LRT	4.0	3.5	3.5	3.7	-	-	-	-	4.5	2.0	3.5	3.3	-	-	-	-	-	-0.4	-
6-LRT	3.5	3.5	3.5	3.5	-	-	-	-	4.0	2.0	3.0	3.0	-	-	-	-	-	-0.5	-
7-LRT	4.0	3.5	2.5	3.3	-	-	-	-	4.5	2.5	2.5	3.2	-	-	-	-	-	-0.1	-
8-LRT	4.0	4.5	3.5	4.0	-	-	-	-	5.0	2.5	4.0	3.8	-	-	-	-	-	-0.2	-
9-LRT	5.5	4.5	5.0	5.0	-	-	-	-	3.5	3.5	3.5	3.5	-	-	-	-	-	-1.5	-
10-LRT	3.5	3.5	3.5	3.5	-	-	-	-	3.5	3.5	3.5	3.5	-	-	-	-	-	0.0	-
11-LRT	5.0	4.0	4.0	4.3	-	-	-	-	3.5	3.0	4.0	3.5	-	-	-	-	-	-0.8	-
12-LRT	2.5	2.5	2.5	2.5	-	-	-	-	2.0	2.0	2.5	2.2	-	-	-	-	-	-0.3	-
13-LRT	4.5	4.0	4.0	4.2	-	-	-	-	2.5	2.0	2.5	2.3	-	-	-	-	-	-1.9	-
14-LRT	3.5	3.5	3.0	3.3	-	-	-	-	3.0	3.0	3.0	3.0	-	-	-	-	-	-0.3	-
15-LRT	3.5	3.5	3.5	3.5	-	-	-	-	3.5	3.5	3.5	3.5	-	-	-	-	-	0.0	-
16-LRT	4.5	4.5	4.5	4.5	-	-	-	-	4.5	4.5	4.5	4.5	-	-	-	-	-	0.0	-
17-LRT	2.5	3.0	3.0	2.8	-	-	-	-	3.5	3.5	3.5	3.5	-	-	-	-	-	+0.7	-
18-LRT	4.0	4.0	4.0	4.0	-	-	-	-	4.0	4.0	4.0	4.0	-	-	-	-	-	0.0	-
19-LRT	4.5	4.5	4.0	4.3	-	-	-	-	4.5	4.5	4.0	4.3	-	-	-	-	-	0.0	-
20-LRT	3.5	3.5	3.5	3.5	-	-	-	-	4.0	4.0	4.0	4.0	-	-	-	-	-	+0.5	-
21-FWY	4.0	3.5	4.5	4.0	-	-	-	-	-	-	-	-	4.0	3.5	4.5	4.0	-	-	0.0
22-FWY	4.0	4.0	4.0	4.0	-	-	-	-	-	-	-	-	4.0	4.0	4.0	4.0	-	-	0.0
23-FWY	4.0	4.0	4.5	4.2	-	-	-	-	-	-	-	-	4.0	4.0	4.0	4.0	-	-	-0.2
24-FWY	4.5	3.5	4.0	4.0	-	-	-	-	-	-	-	-	3.5	3.0	3.5	3.3	-	-	-0.7
25-FWY	3.5	2.5	3.0	3.0	-	-	-	-	-	-	-	-	5.0	4.0	2.5	3.8	-	-	+0.8
26-FWY	4.0	3.0	3.5	3.5	-	-	-	-	-	-	-	-	4.5	4.0	4.0	4.2	-	-	+0.7
27-FWY	4.0	3.0	3.5	3.5	-	-	-	-	-	-	-	-	4.5	4.0	5.0	4.5	-	-	+1.0
28-FWY	3.0	3.5	4.0	3.5	-	-	-	-	-	-	-	-	4.0	3.5	4.0	3.8	-	-	+0.3
29-FWY	4.0	3.5	4.0	3.8	-	-	-	-	-	-	-	-	3.5	3.0	4.0	3.5	-	-	-0.3
30-FWY	3.0	3.5	4.0	3.5	-	-	-	-	-	-	-	-	6.0	2.5	5.0	4.5	-	-	+1.0

Rating Scale: 1.0 to 7.0 (1.0 = very low, 2.0 = low, 3.0= moderately low, 4.0 = moderate, 5.0 = moderately high, 6.0 = high, 7.0 = very high)

The visual quality ratings are based on the conceptual ideas of what the views would look like with the proposed Build Alternatives. The change in overall visual quality at project build out is the difference between the "Existing Visual Quality" rating and the "Visual Quality for (BRT/LRT/Freeway) Alternative" rating. For example, if the overall Existing Visual Quality rating is 6.0 and the Visual Quality for a Build Alternative rating is 5.0, then the difference from existing is -1.0. A negative number indicates the potential for lowering the visual impact from the existing visual setting. The greater the negative number, the more substantial the visual impact (e.g., a -1.0 rating would have more visual impact than a -0.4). A positive number represents a potential improvement in the visual setting with the implementation of the particular Build Alternative. As an industry standard, numerical differences between +1.0 and -1.0 are not considered to be a considerable visual impact. The TSM/TDM Alternative has not been rated as the preliminary evaluation determined the visual impacts of the TSM/TDM Alternative were very low for all of the selected Key Views.

Source: Tatsumi and Partners, Inc. (2013)

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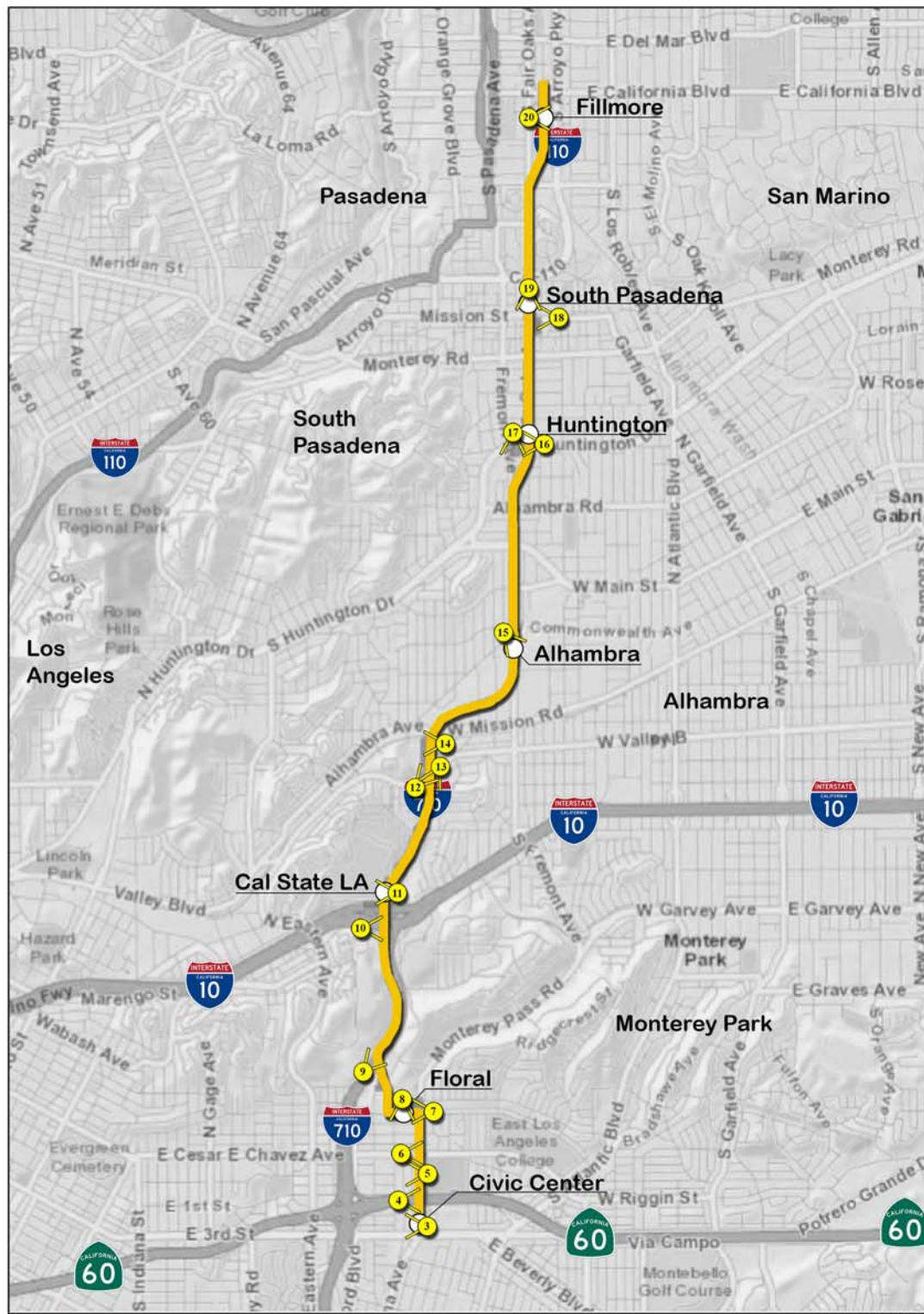
FIGURE 8-1

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
 P:\2011\755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-1 OVERALL KEY VIEW MAP - BRT

LEGEND
 Bus Rapid Transit (BRT) Alternative
 BRT Stations
 BRT Key View Locations
 Freeways
 Major Roads
 Local Roads

SR 710 North Study
 Overall Key View Map - BRT

07-4A-710 (SR 710)
 EA 187900
 EFIS 0700000191



SOURCE: TATSUMI AND PARTNERS, INC. (2013)
 P:\2011755.00\00-710 Study_TAP\RENDERING\KEY VIEW BOOKLET\FIGURE 8-2 OVERALL KEY VIEW MAP - LRT

SR 710 North Study
 Overall Key View Map - LRT

07-LA-710 (SR 710)
 EA 187900
 EFIS 0700000191

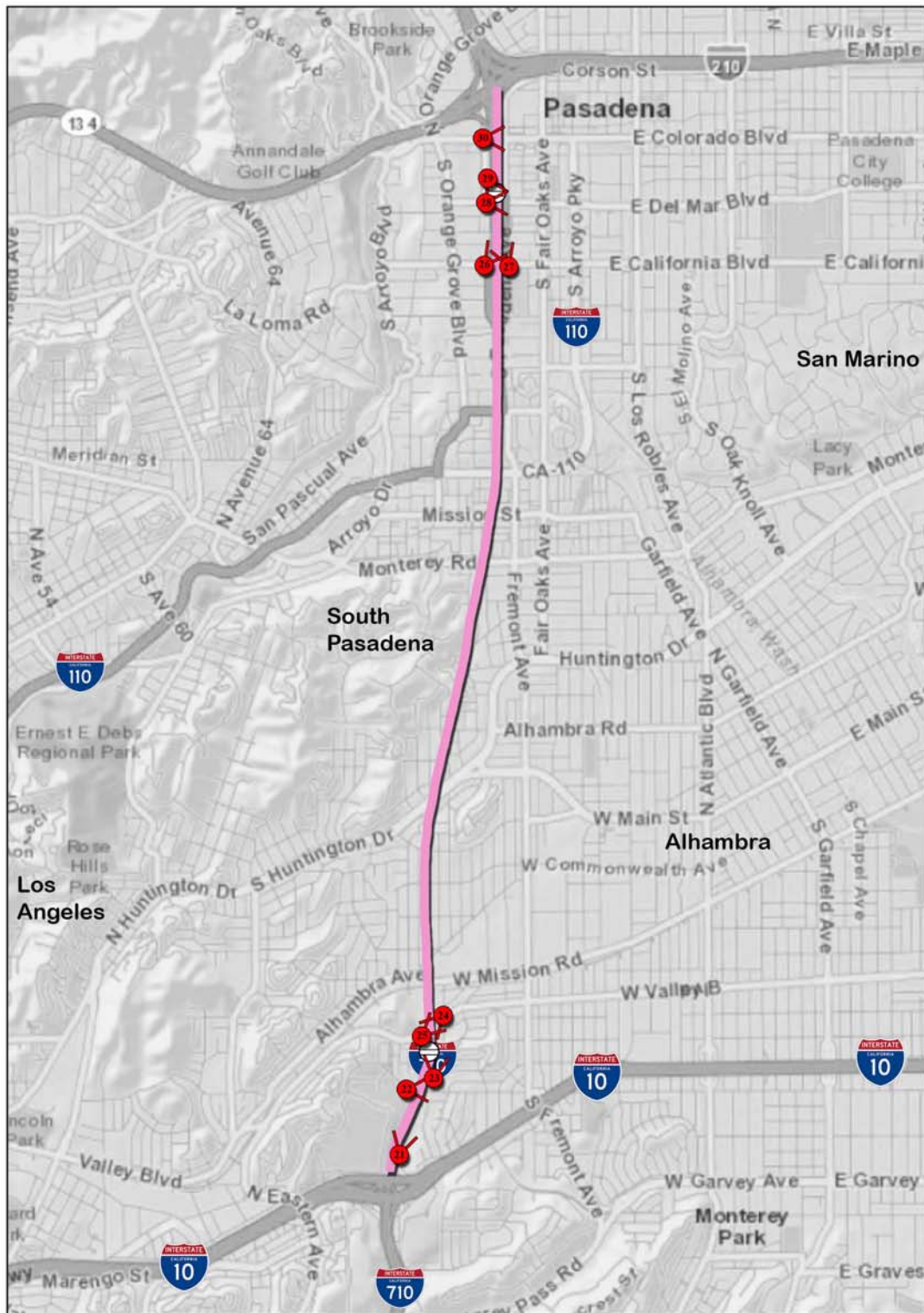


FIGURE 8-3

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
 P:\2011\755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-3 OVERALL KEY VIEW MAP - FWY

LEGEND
 FWY Tunnel Alternative
 FWY Tunnel Portals
 FWY Tunnel Key View Locations
 Freeways
 Major Roads
 Local Roads

SR 710 North Study
 Overall Key View Map - FWY

07-LA-710 (SR 710)
 EA 187900
 EFS 0700000191

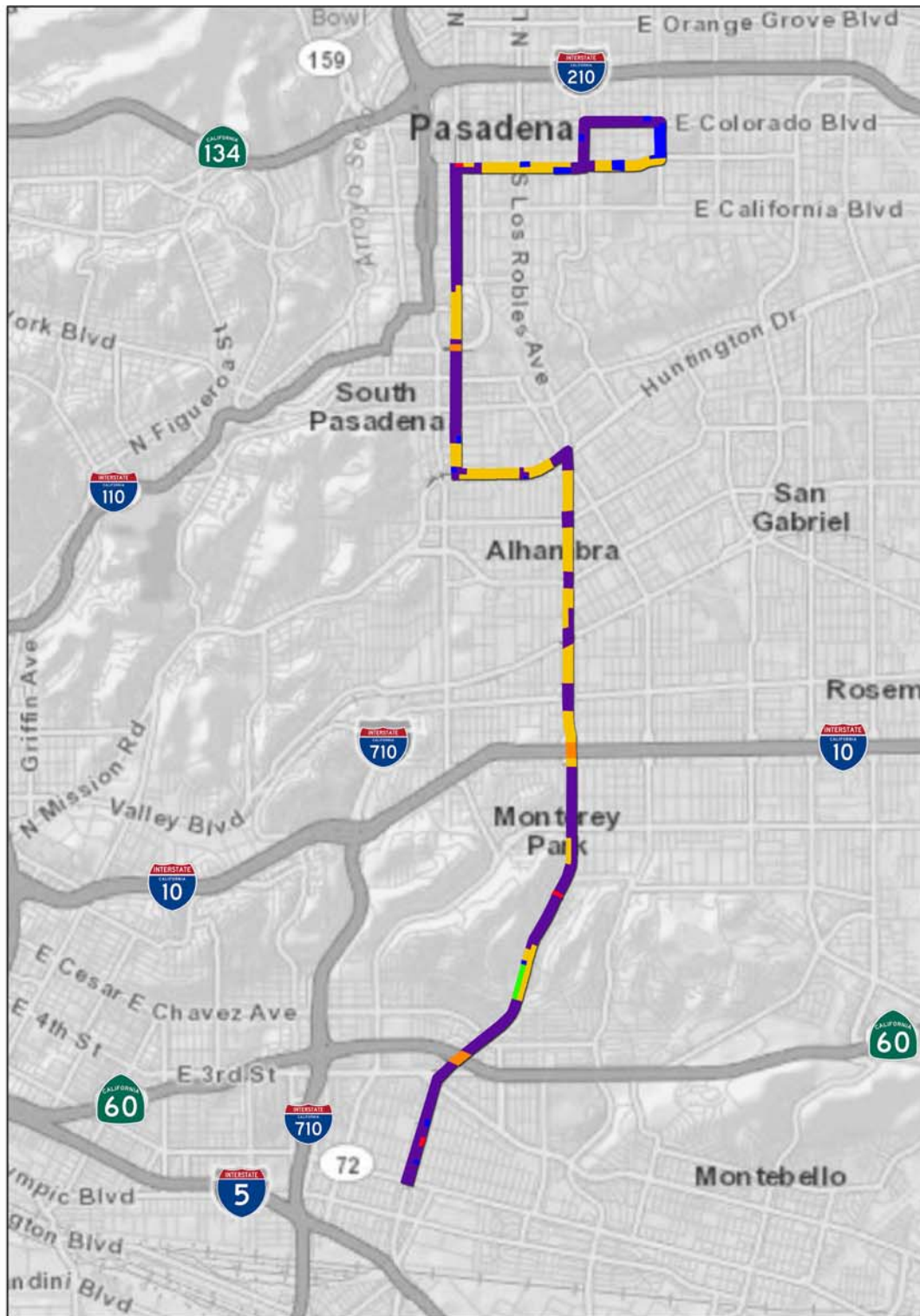
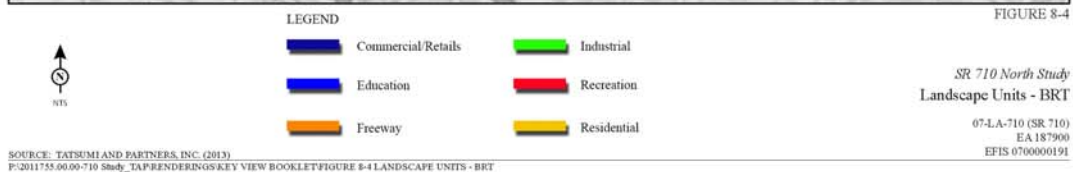


FIGURE 8-4



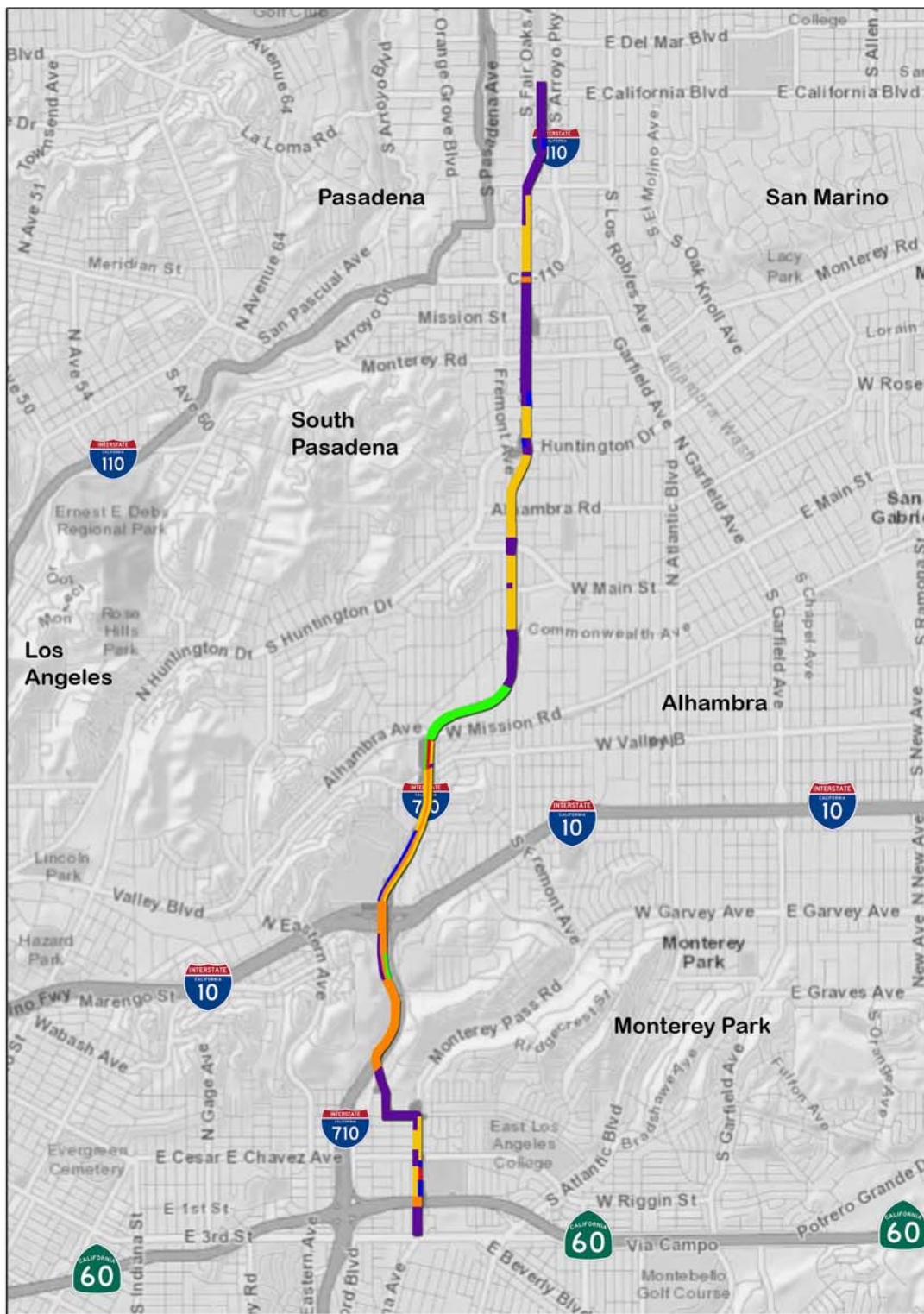


FIGURE 8-5



SR 710 North Study
Landscape Units - LRT

07-LA-710 (SR 710)
EA 187900
EFTS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00.00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-5 LANDSCAPE UNITS - LRT

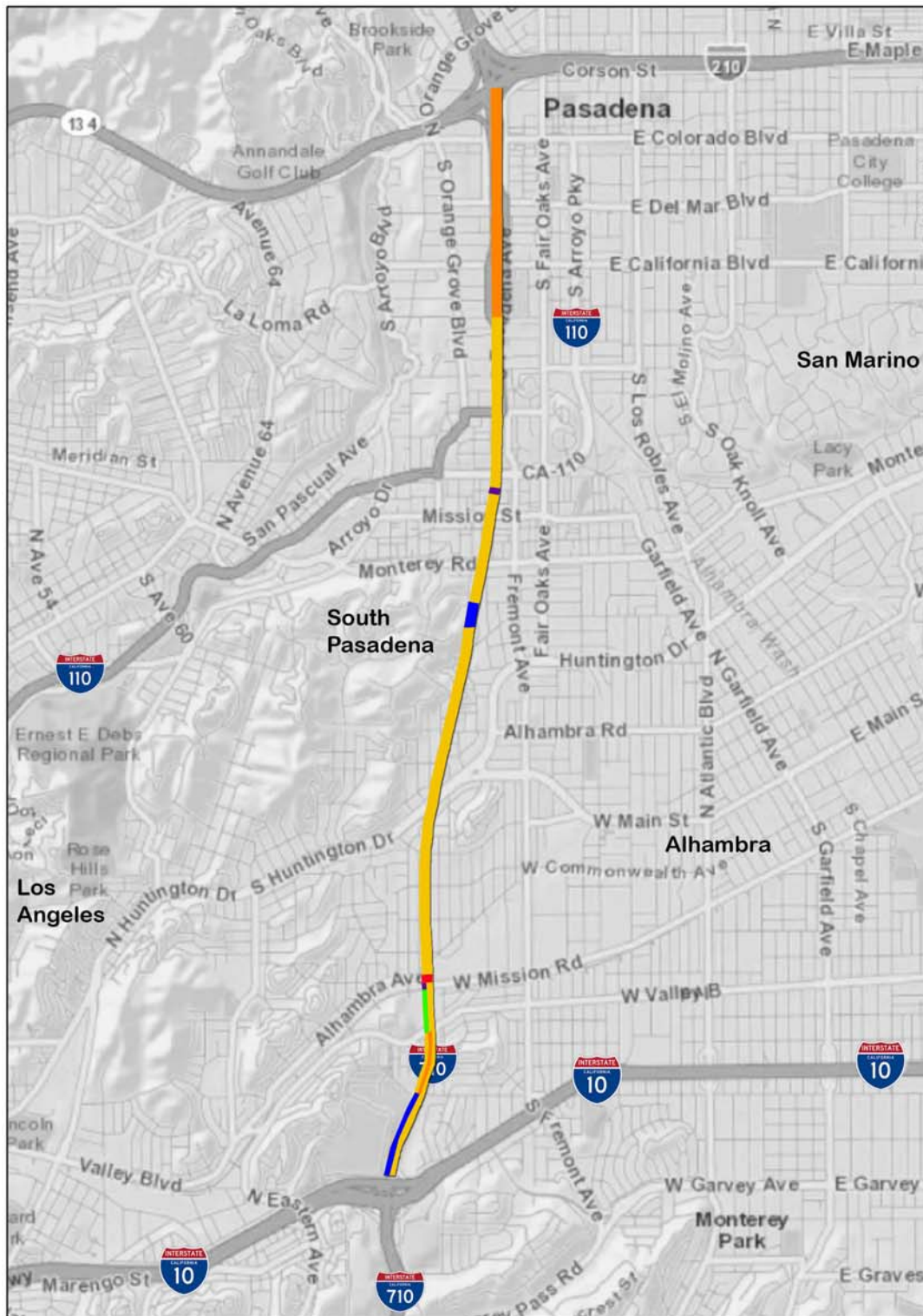


FIGURE 8-6



	Commercial/Retail		Industrial
	Education		Recreation
	Freeway		Residential

SOURCE: TATSUMI & PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAPRENDERINGS\KEY VIEW BOOKLET\FIGURE 8-6 LANDSCAPE UNITS - FWY

SR 710 North Study
Landscape Units - FWY

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

Key View 1-BRT (Figures 8-7 and 8-8)**ORIENTATION**

As shown in Figure 8-7, W Valley Boulevard is located in Alhambra. The existing setting and visual simulation for Key View 1-BRT are shown in Figure 8-8.

EXISTING VISUAL QUALITY

This location of Key View 1-BRT takes place at 1100 W Valley Boulevard as it crosses S Atlantic Boulevard. The view looking northeast consists of commercial businesses and restaurants. The existing visual quality of this view is moderately low (3.3).

	Rating	Comments
Vividness (V)	3.0	The existing vividness is moderately low – this intersection includes a cluster of commercial buildings of different colors and varying signage. It does not contain any outstanding visual cues to increase eye focus to any one element.
Intactness (I)	3.0	The existing intactness is moderately low – the streetscape has very little street planting other than a few shrubs. Multiple visual elements encroach into this view including the vertical poles for the lights and signals.
Unity (U)	4.0	The existing unity is moderate – one and two-story buildings are compatible with each other. Visually these structures appear to be at a uniform visual horizon adding strength to the horizontal visual plane.
Existing Visual Quality (E) ($[V+I+U]/3$)	3.3	

PROPOSED PROJECT FEATURES

At this location, S Atlantic Boulevard would be widened in the north-bound lane for a dedicated bus line. The lane would later merge into the existing road lanes. This BRT Alternative would require a portion of the sidewalk and parking lot between the restaurants to be reduced and the traffic signal pole at the corner to be moved to the east. A new bus stop shelter would be installed along the bus lane.

CHANGE TO VISUAL QUALITY

Currently, this portion of S Atlantic Boulevard is a 4-lane road. North of Valley Boulevard, an extra lane would be created for the BRT Alternative, reducing the sidewalk in front of a restaurant and the parking lot between two food service locations. The minor changes that this new lane would create would not change the visual quality.

Key View 1-BRT - Visual Quality for BRT Alternative

	Rating	Comments
Vividness (V)	3.0	The vividness would again be moderately low – the extra lane for the BRT Alternative does not negatively affect the existing view since it is very difficult to see from the perspective of the Key View.
Intactness (I)	3.0	The intactness would remain moderately low – the street widening change is minimal in terms of the visual impact on the streetscape due to the low angle perspective of the viewer.
Unity (U)	4.0	The unity would remain moderate – the added lane for the BRT Alternative does not affect the visual horizon line created by the buildings on S. Atlantic Boulevard.
Proposed Built Alternative Visual Quality (P) ($[V+I+U]/3$)	3.3	

Change in Visual Quality (BRT Alternative)	0.0
---	-----

RESOURCE CHANGE

There would be no change in visual quality. Change in visual character would be very low as well since the overall form, line, color, texture, and other characteristics of the area change very little. The resulting resource change would be very low (0.1).

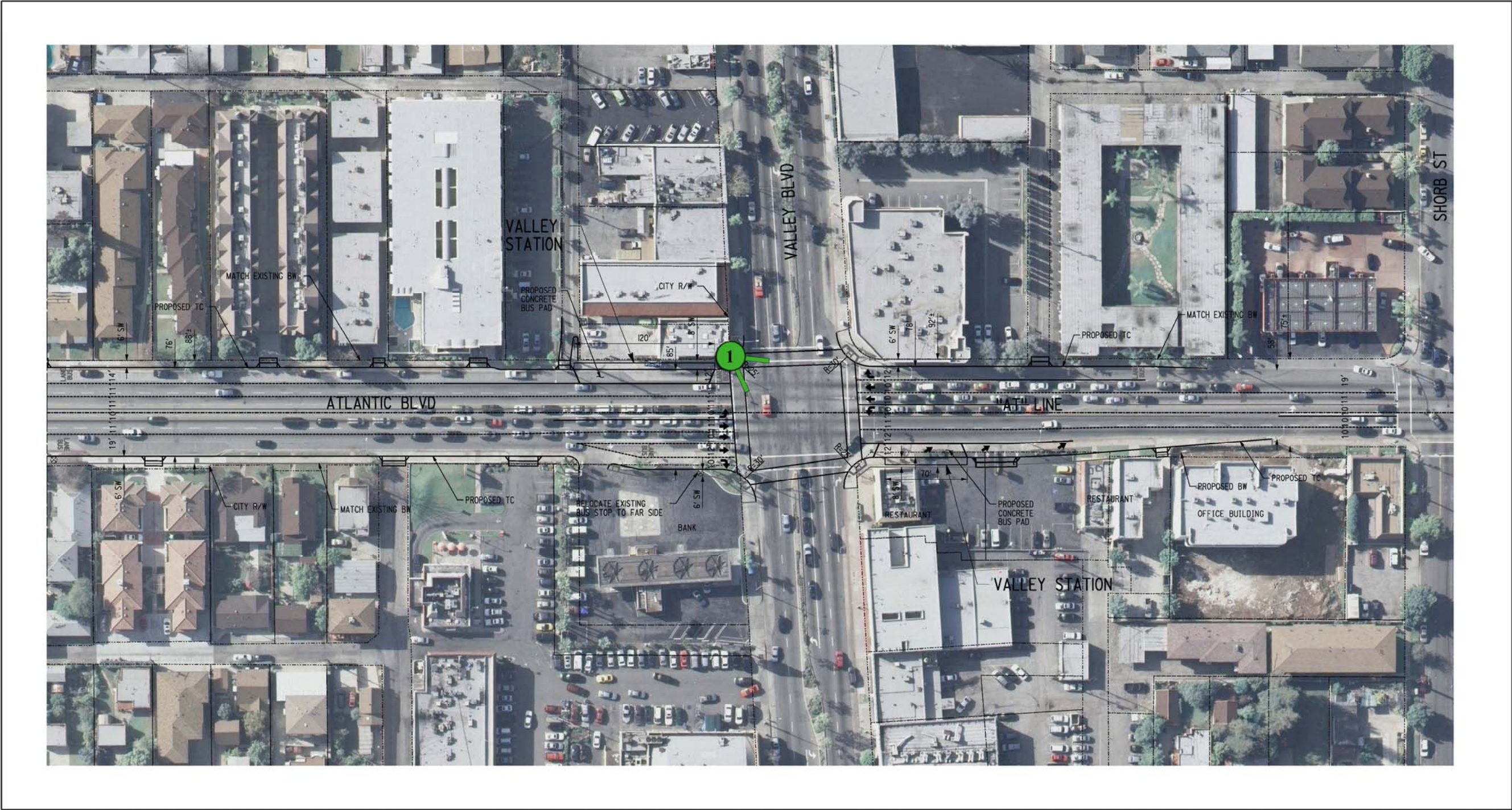
VIEWER RESPONSE

S Atlantic Boulevard is a busy commercial corridor connecting Huntington Drive in South Pasadena to the north and East Los Angeles (and beyond) to the south. Viewers include commercial/retail motorists and pedestrians. Average viewer sensitivity to the BRT Alternative is likely to be moderate based on the viewers' activity, awareness, and local values. Average viewer exposure is likely to be moderate due to the nearness, number of viewers, and moderate duration of viewing the area. The average viewer response would be moderate (4.0).

RESULTING VISUAL IMPACT

Although Key View 1-BRT is located at a busy commercial intersection, visual impact due to the BRT Alternative would be moderately low (2.0) for the alternative due to the very low impact of the bus stop. Viewers are moderately sensitive and exposed to the changes, and the widening of the BRT lane and re-striping of the lanes would encroach into the existing streetscape and narrow the sidewalk width. However, visual resources would not change in a substantial way. Any street signage and utilities would simply be relocated to the east, as necessary.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
1-BRT	Commercial	0.1	4.0	2.0



LEGEND

-  Bus Pad
-  BRT Station Design (August 2013)
-  ADA Crosswalk
-  Driveways
-  BRT KV Locations

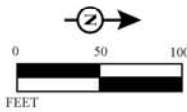


FIGURE 8-7

SR 710 North Study
Key View 1-BRT Location

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAPRENDERINGS\KEY VIEW BOOKLET\FIGURE 8-7 KEY VIEW 1-BRT LOCATION



Existing Condition



Visual Simulation: Proposed Bus Rapid Transit Valley Station (BRT).

KEY VIEW 1-BRT

1100 W. Valley Blvd
Intersection of Atlantic Blvd and Valley Blvd
City of Alhambra, CA 91803

GPS Location:
Latitude = 34° 4'39.96"N
Longitude = 118° 8'4.70"W
Heading = 25.35° NNE

The location of the Key View 1-BRT was taken from the southwest corner of Valley Boulevard/Atlantic Boulevard intersection in front of Conroy's Flower shop. The view looks northeast towards the proposed Bus Rapid Transit Station (BRT).



Study Area
BRT ALTERNATIVE



SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-8 KEY VIEW 1-BRT DESCRIPTION

Key View 2-BRT (Figures 8-9 and 8-10)

ORIENTATION

As shown in Figure 8-9, Fair Oaks Avenue is located in South Pasadena. The existing setting and visual simulation for Key View 2-BRT are shown in Figure 8-10.

EXISTING VISUAL QUALITY

This location of Key View 2-BRT takes place on the east side of Fair Oaks Boulevard between State Street and Raymond Hill Road. The view looking northeast is framed by street trees in front of 2-story residential apartments. The existing visual quality of this view is moderate (4.2).

	Rating	Comments
Vividness (V)	4.0	The existing vividness is moderate – this portion of Fair Oaks is fronted by 2-story apartments with various types of street trees palms create a memorable visual cluster of vertical elements which help to define the view.
Intactness (I)	4.5	The existing intactness is moderate – the consistent street trees of palms and front yard landscaping frame the residential units from the street. There are very few visual elements which interrupt the visual flow.
Unity (U)	4.0	The existing unity is moderate – the repeating pattern of the 2-story apartment buildings forms a consistent front yard setback. Also, with the addition of the lanes of traffic, cars would be unable to park along both sides of Fair Oaks in this location and the viewer's perspective would not be interrupted by parked cars in the foreground.
Existing Visual Quality (E) ([V+I+U]/3)	4.2	

PROPOSED PROJECT FEATURES

At this location, Fair Oaks Avenue would be widened on both sides for a dedicated bus line. This BRT Alternative would require a portion of the front yards to be reduced, sidewalks adjusted, and the street lights to be moved back. A new bus stop shelter would be installed along the bus lane.

CHANGE TO VISUAL QUALITY

Currently, this portion of Fair Oaks Avenue is a 4-lane road with parallel parking on both sides. With the new dedicated bus lane replacing the parallel parking spaces. The minor changes that this new lane would create would not change the visual quality.

Key View 2-BRT - Visual Quality for BRT Alternative

	Rating	Comments
Vividness (V)	4.0	The vividness would be moderate – the widening of Fair Oaks Boulevard for the BRT Alternative would require some trees to be removed that are close to the existing curb, but the change would be minimal and therefore the primary visual elements remain unchanged.
Intactness (I)	4.5	The intactness would remain moderate – the additional lane for the BRT Alternative would not negatively impact the streetscape since this would be very difficult to see from the relatively low perspective of the viewer.
Unity (U)	4.0	The unity would be moderate – other than reducing their front yards, the road widening would not affect the residential buildings. Again, the low angle of the viewer would greatly reduce the visual impacts of this lane based on the acute angle and distance between the viewer and the road widening.
Proposed Built Alternative Visual Quality (P) $([V+I+U]/3)$	4.2	

Change in Visual Quality (BRT Alternative)	+0.0
--	------

RESOURCE CHANGE

There would be no change in visual quality. Change in visual character would be very low as well since the overall form, line, color, texture, and other characteristics of the area change very little. The resulting resource change would be very low (0.1).

VIEWER RESPONSE

Fair Oaks Avenue is a busy commercial corridor connecting Huntington Drive in South Pasadena to the south and Pasadena to the north. The main viewer groups include both commercial and residential motorists and pedestrians. Sensitivity to the BRT Alternative is likely to be high because of viewers' activity, awareness, and local values. Average viewer exposure is likely to be moderately high due to the nearness, moderate number of viewers, and prolonged duration of viewing the area. The average viewer response would be high (5.5).

RESULTING VISUAL IMPACT

Although Key View 2-BRT is located at a busy commercial corridor, visual impact due to the BRT is likely to be moderate (2.8) for the alternative due to the very low impact of the bus stop. Viewers would be moderately highly exposed and highly sensitive to changes in a commercial/residential area since the widening of the BRT lane and re-striping of the lanes would encroach into the existing streetscape and narrow the front yard. However, the overall visual quality and character would not change in a substantial way. Any street signage and utilities would simply be relocated to the east as necessary.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
2-BRT	Commercial, Residential	0.1	5.5	2.8



LEGEND

- Bus Pad
- BRT Station Design (August 2013)
- ADA Crosswalk
- Driveways
- BRT KV Locations

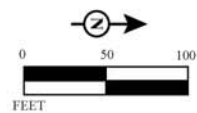


FIGURE 8-9

SR 710 North Study
Key View 2-BRT Location

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
PA2011755.00.00-710 Study_TAPRENDERINGSKEY VIEW BOOKLETFIGURE 8-9 KEY VIEW 2-BRT LOCATION



Existing Condition



Visual Simulation: Proposed Bus Rapid Transit Lane (BRT)

KEY VIEW 2-BRT

245 Fair Oaks Avenue
City of South Pasadena, CA 91030

GPS Location:
Latitude = 34° 7'22.20"N
Longitude = 118° 9'1.39"W
Heading = 25.35° NNE

The location of Key View 2-BRT was taken from the sidewalk along Fair Oaks Avenue just outside of Peter Tolkin Architecture. The view looks northeast towards the proposed Bus Rapid Transit Lane (BRT).



FIGURE 8-10

SR 710 North Study
Key View 2-BRT Description
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-10 KEY VIEW 2-BRT DESCRIPTION

Key View 3-LRT (Figures 8-11 and 8-12)

ORIENTATION

As shown in Figure 8-11, the proposed East Los Angeles Civic Center Station is located on Mednik Avenue just south of the State Route 60 (SR 60) Pomona Freeway across the street from the Chicano Resource Center/East Los Angeles Public Library and around the corner from the East LA Civic Center Metro station in East Los Angeles. The existing setting and visual simulation for Key View 3-LRT are shown in Figure 8-12.

EXISTING VISUAL QUALITY

The location of Key View 3-LRT takes place in a relatively new linear retail/restaurant center with parking behind. To the north of the retail/restaurant strip is a 2-story building for businesses including a dental and a law office. Further north is another single-story strip of retail shops. These two buildings are set back from the street with a bay of parking in front. Street trees of Chinese Flame Tree are planted along Mednik Avenue. The existing visual quality of this view is moderately low (3.2).

	Rating	Comments
Vividness (V)	2.5	The existing vividness is low – the break in the retail shop frontage exposes the single bay of parking, wall, and telephone poles beyond. There are no elements in this view that would attract the eye to one specific area or focal point.
Intactness (I)	3.5	The existing intactness is moderately low – 90% of the area is paved with landscaping only at the foundation of the retail shops and in front of the parking lot. With the exception of the light standard along the street, there are very little other forms which would encroach into this view.
Unity (U)	3.5	The existing unity is moderately low – no natural landscape. Shrubs and small trees soften the paving. The horizontal lines created by the street/lanes in the foreground contribute a small degree of uniform visual flow.
Existing Visual Quality (E) ($[V+I+U]/3$)	3.2	

PROPOSED PROJECT FEATURES

At this location, the proposed Civic Center station would be an elevated platform over 25-feet in height and supported by columns. The platform station with buildings underneath would be located on the eastern side of the parcel along Mednik Avenue. Surface parking would be built behind the buildings.

CHANGE TO VISUAL QUALITY

Currently, the west side of Mednik Avenue is a series of retail shops, restaurants, and offices. Under the alternative, these buildings would be removed to create the proposed Civic Center station and associated structures and surface parking. This station would connect commuters to the existing Metro Gold Line on 3rd Street. The change to visual quality resulting from the Build Alternative would be medium.

Key View 3-LRT - Visual Quality for LRT Alternative

	Rating	Comments
Vividness (V)	5.0	The vividness would be moderately high – the new elevated rail station and retail buildings below would dominate the view of the streetscape and create memorable visual elements in both foreground and middle ground. Architectural treatments to the buildings would create additional visual interest in this view by providing colors, angles, lines and depth.
Intactness (I)	4.0	The intactness would be moderate – the mass of the buildings at street level fills the view in this direction. There are no man-made utilities, fixtures or lines which would interrupt or encroach into this view.
Unity (U)	4.0	The unity would be moderate – the elevated rail station and retail buildings below would form a strong horizontal pattern on the streetscape. These buildings on the street would have fewer façade breaks than the existing view with a new consistent architectural treatment.
Proposed Built Alternative Visual Quality (P) $(V+I+U)/3$	4.3	

Change in Visual Quality (LRT Alternative)	+1.1
--	------

RESOURCE CHANGE

There would be a medium change to visual quality. Change in visual character would have good compatibility with the existing area. The character would be more balanced, and the additional mass of the architectural forms would suit the urban area, creating outdoor rooms for pedestrians and a sense of place for motorists. The resulting resource change would be a moderately low positive change (1.6).

VIEWER RESPONSE

The corner of 3rd Street and Mednik Avenue is an important civic hub for East Los Angeles which serves the Chicano Resource Center/East Los Angeles Public Library. The existing East LA Civic Center Station of the Gold Line would now be connected to the Light Rail Transit (LRT) Alternative to serve communities northward into Monterey Park, Alhambra, South Pasadena, and Pasadena. Viewer groups include recreation and commercial/retail pedestrians and motorists. The average sensitivity and exposure of these viewer groups to the LRT Alternative would be moderately high. Average viewer response would be moderately high as well.

RESULTING VISUAL IMPACT

Under the alternative, the visual impact in Key View 3-LRT would be moderate (3.3). The elevated rail station would dominate the view, but the visual character of the Built Alternative has good compatibility with the existing character. The elevated station platform and associated structures below would increase the vividness, intactness, and unity a low amount due to their larger size and scale. The buildings along Mednik Avenue would have a stronger edge and have fewer openings in the façades than the existing buildings. Average viewer response of the commercial and recreation viewer groups would be moderately high.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
3-LRT	Recreation, Commercial	1.6	5.0	3.3

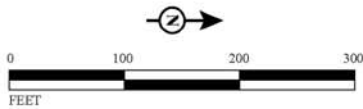
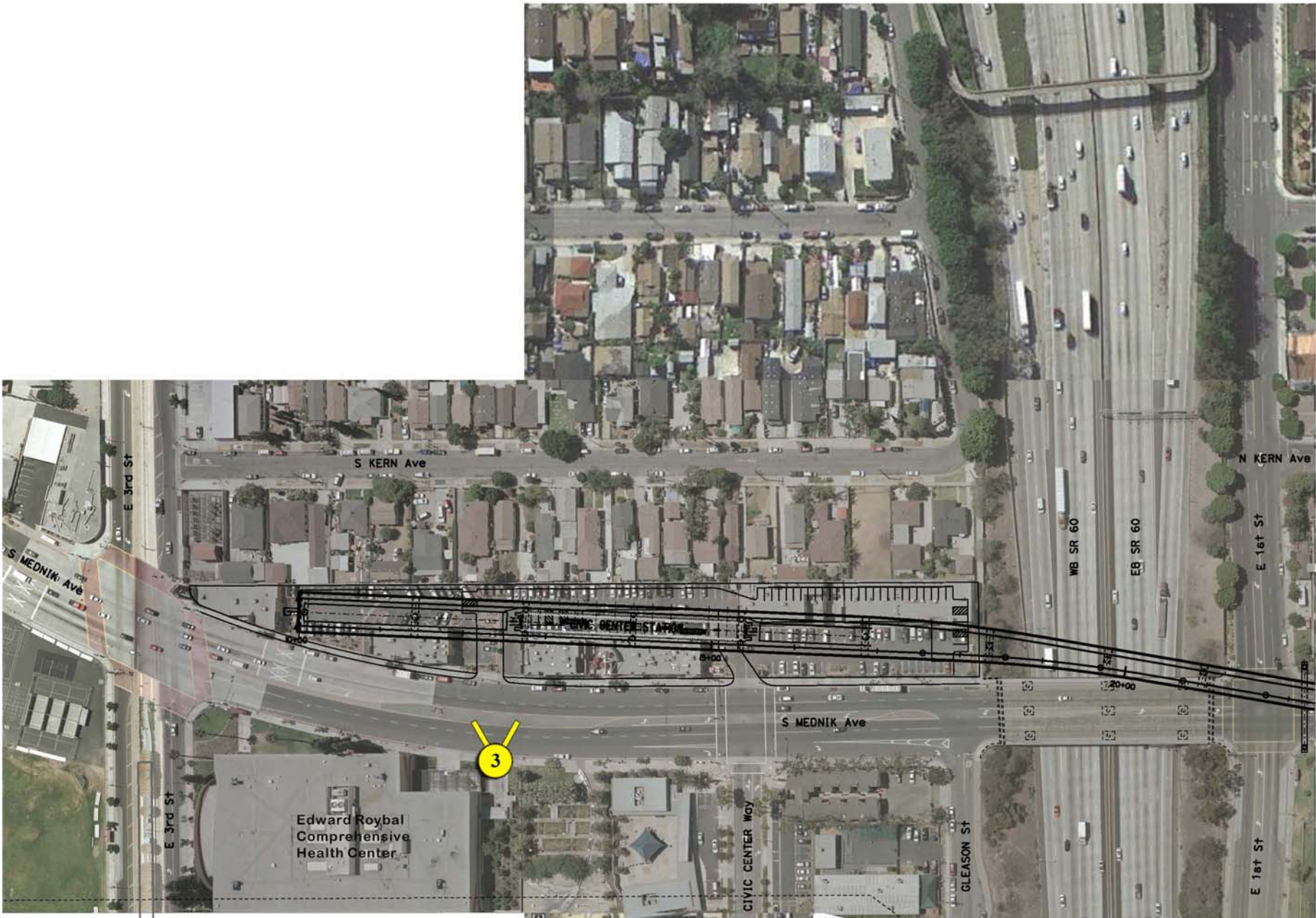


FIGURE 8-11

SR 710 North Study
Key View 3-LRT Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-11 KEY VIEW 3-LRT LOCATION



Existing Condition



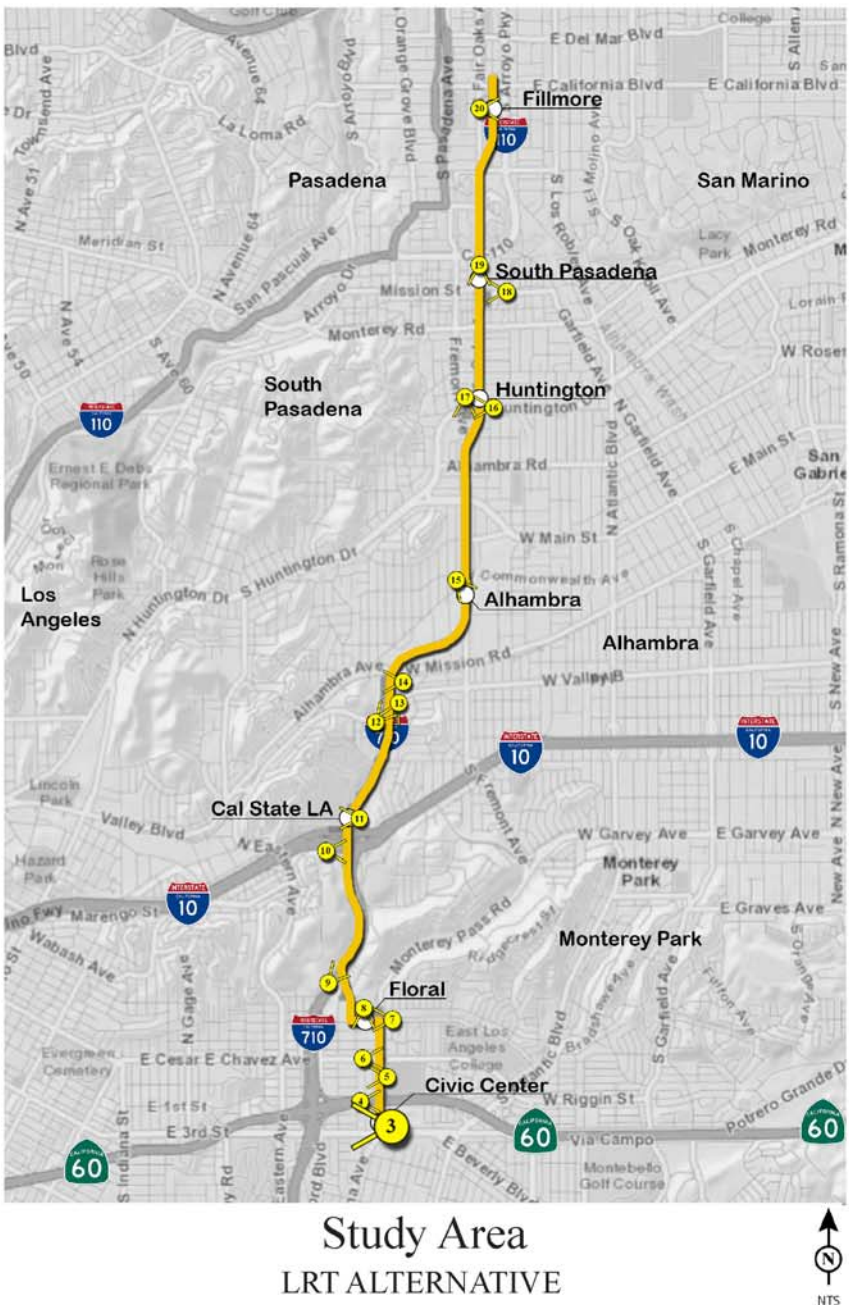
Visual Simulation: Proposed Civic Center Station

KEY VIEW 3-LRT

220 S. Mednik Avenue
City of East Los Angeles, CA 90022

GPS Location:
Latitude = 34° 2' 2.76"N
Longitude = 118° 9' 42.26"W
Heading = 268.4° W

The location of Key View 3-LRT was taken on the sidewalk along S. Mednik Avenue just outside the Edward Roybal comprehensive Health Center. The view looks west towards the proposed Civic Center Station.



LEGEND

Light Rail Transit (LRT) Alternative

LRT Stations

LRT Key View Locations

Freeways

Major Roads

Local Roads

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-12 KEY VIEW 3-LRT DESCRIPTION

FIGURE 8-12

SR 710 North Study
Key View 3-LRT Description
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

Key View 4-LRT (Figures 8-13 and 8-14)

ORIENTATION

As shown in Figure 8-13, Mednik Avenue crosses over SR 60. The existing setting and visual simulation for Key View 4-LRT are shown in Figure 8-14.

EXISTING VISUAL QUALITY

The location of Key View 4-LRT takes place west of Mednik Avenue on the SR 60 (Pomona Freeway). The existing visual quality of this view is moderately low (3.8). Large shade trees cover the hillsides on both sides.

	Rating	Comments
Vividness (V)	3.0	The existing vividness is moderately low – the trees on the slopes screen most of the development along the freeway, but no memorable features are visible.
Intactness (I)	4.0	The existing intactness is moderate - the few utility poles and development that are visible offer minor intrusions.
Unity (U)	4.5	The existing unity is moderate – land forms and vegetation along both sides of the freeway are consistent. Additionally the upward angle of the travel lanes create a uniform flow toward a single horizon point.
Existing Visual Quality (E) ($[V+I+U]/3$)	3.8	

PROPOSED PROJECT FEATURES

At this location, the proposed LRT Alternative would be elevated +/-50 feet above the surface of SR 60 and be supported by columns. The overpass would be just west of the Mednik Avenue overpass.

CHANGE TO VISUAL QUALITY

The elevated LRT would add another crossing over SR 60 and the span would be higher than the adjacent Mednik Avenue crossing. The new crossing would be visible from both directions of traffic on the freeway. The change in visual quality resulting from the Build Alternative would be minor.

Key View 4-LRT - Visual Quality for LRT Alternative

	Rating	Comments
Vividness (V)	4.5	The vividness would be moderate – the LRT Alternative comes out of the trees on either side of SR 60 as it crosses over the freeway and brings the view together. The new bridge will be closer to the viewer and create a visual element which draws the viewer attention.
Intactness (I)	3.5	The intactness would be moderately low – the additional bridge adds a strong horizontal element to the view while creating a low degree of visual intrusion.
Unity (U)	4.0	The unity would be moderate – the elevated light rail line adds another horizontal element to the existing view. This minimizes the linear flow of the travel lanes into the horizon.
Proposed Built Alternative Visual Quality (P) ($[V+I+U]/3$)	4.0	

Change in Visual Quality (LRT Alternative)	+0.2
---	------

RESOURCE CHANGE

There would be a minor change to visual quality. Change in visual character would have moderately poor compatibility with the existing area (-0.5) since the new bridge would be out of scale with the view and create a competing focal point. The resulting resource change would be a very low negative change (-0.2).

VIEWER RESPONSE

Viewers primarily include Freeway motorists. Viewer exposure would be moderately low due to the high number of viewers, moderate proximity to the project, but very low duration. Average viewer sensitivity is very low because of the preoccupation, low awareness and lack of local values of freeway motorists. Average viewer response would be low (-2.0)

RESULTING VISUAL IMPACT

Under the alternative, the visual impact in Key View 4-LRT would be low (-1.1) due to the completion of the LRT Alternative across SR 60. The elevated light rail line would result in an increase of vividness and a decrease of intactness and unity because of the additional infrastructure and taller height visible from the freeway traffic. Overall resource change would be very low, and viewer response would be low.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
4-LRT	Freeway	-0.2	-2.0	-1.1

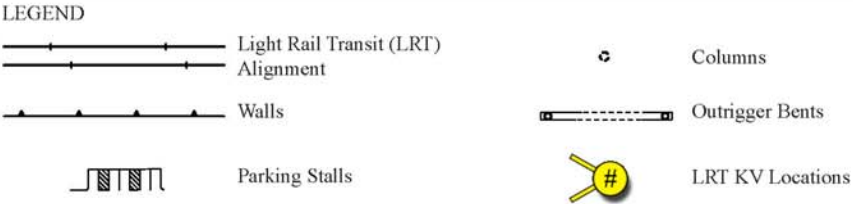
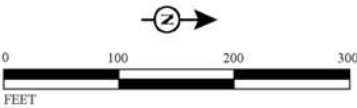
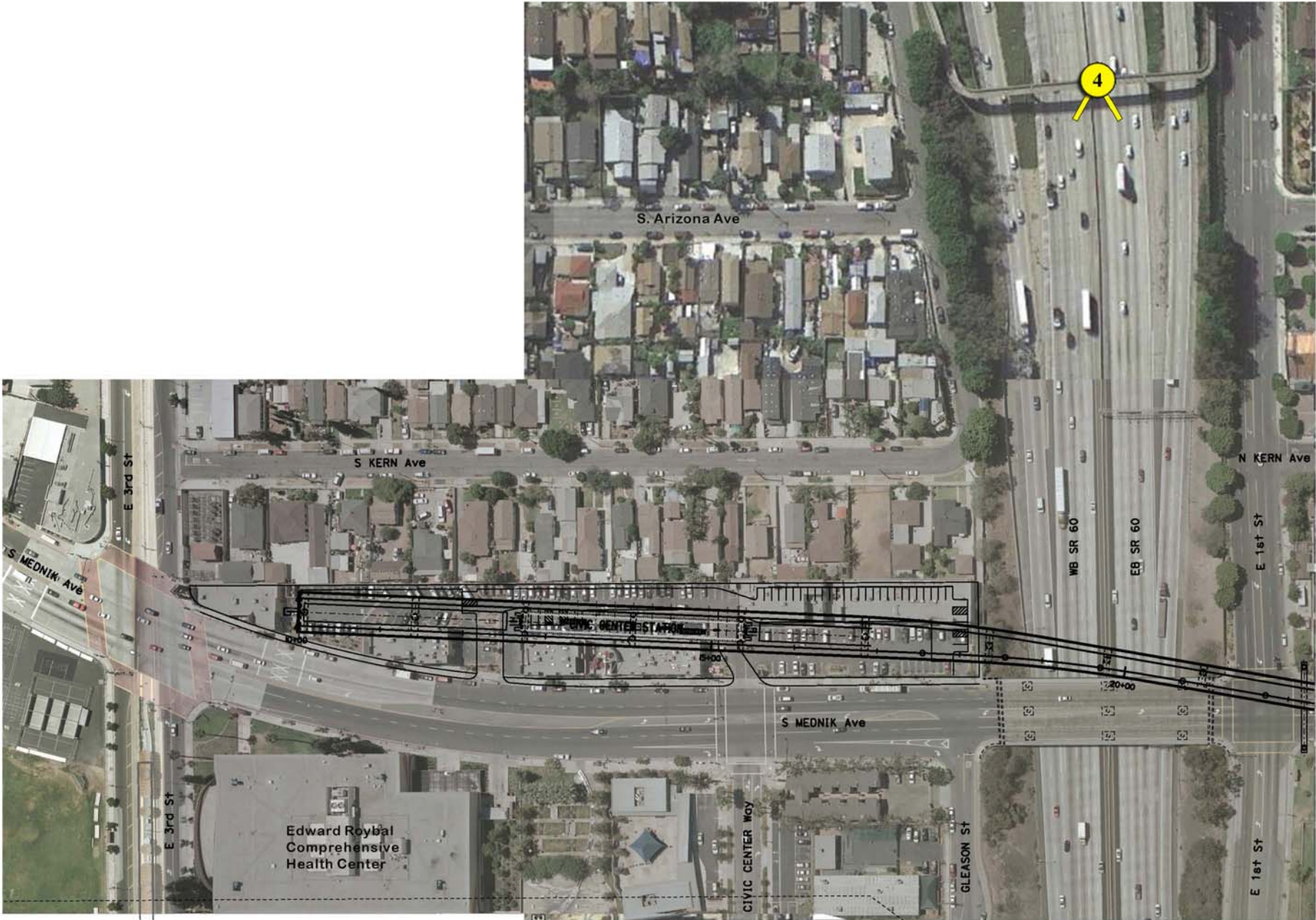


FIGURE 8-13

SR 710 North Study
Key View 4-LRT Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00.00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-13 KEY VIEW 4-LRT LOCATION



Existing Condition



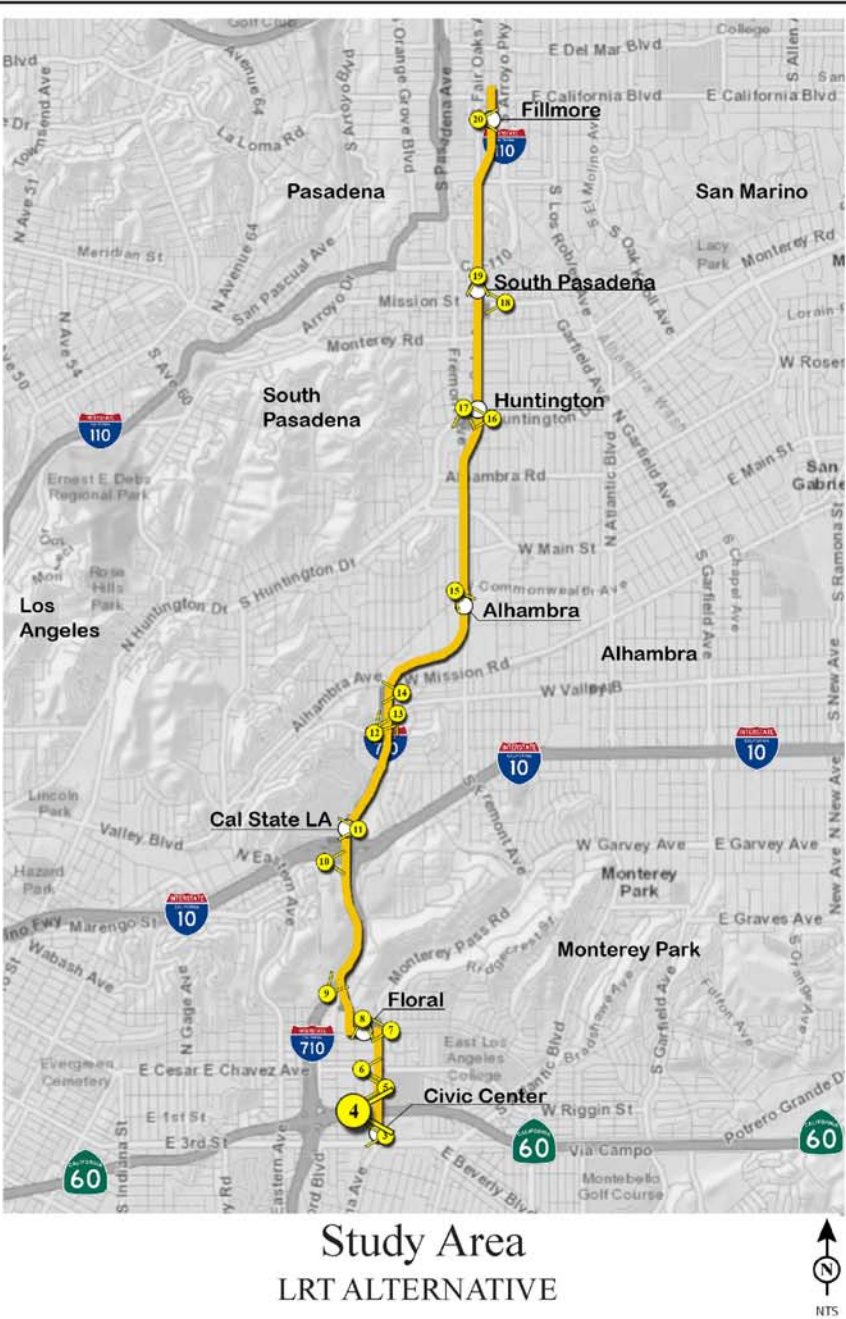
Visual Simulation: Light Rail Transit crossing the SR-60 Freeway

KEY VIEW 4-LRT

SR-60 Eastbound at Dangler Avenue
City of East Los Angeles, CA 90022

GPS Location:
Latitude = 34° 2' 11.30"N
Longitude = 118° 9' 51.57"W
Heading = 85° E

The location of Key View 4-LRT was taken from the pedestrian bridge on Dangler Avenue, west of Mednik Avenue. The view looks east towards the elevated Light Rail Transit crossing the SR-60 (Pomona Freeway).



Study Area
LRT ALTERNATIVE

FIGURE 8-14

LEGEND			
	Light Rail Transit (LRT) Alternative		Freeways
	LRT Stations		Major Roads
	LRT Key View Locations		Local Roads

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00.00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-14 KEY VIEW 4-LRT DESCRIPTION

Key View 5-LRT (Figures 8-15 and 8-16)

ORIENTATION

As shown on Figure 8-15, Belvedere Community Regional Park is located at 4914 E. Cesar Chavez Avenue. The existing setting and visual simulation for Key View 5-LRT are shown in Figure 8-16 along the western boundary of Mednik Avenue.

EXISTING VISUAL QUALITY

The location of Key View 5-LRT takes place within Belvedere Community Regional Park on the baseball field. Pine trees along the street and clusters of Eucalyptus and California Pepper across the street provide a filtered view of the multi-family apartments on the west side of Mednik Avenue. The existing visual quality of this view is moderately low (3.7).

	Rating	Comments
Vividness (V)	4.0	The existing vividness is moderate – the trees along Mednik Avenue and in the background enhance the visual attractiveness and vividness of the view.
Intactness (I)	3.5	The existing intactness is moderately low – the tall sports field lighting encroaches into the view and detracts from the view of the vegetation across the street.
Unity (U)	3.5	The existing unity is moderately low – the fencing and light poles creates a pattern across the streetscape which lacks consistency. All visual elements are mixed together with no particular pattern.
Existing Visual Quality (E) ($[V+I+U]/3$)	3.7	

PROPOSED PROJECT FEATURES

At this location, the proposed light rail would be elevated 25 to 30 feet above the street and be supported by thick columns spaced far apart.

CHANGE TO VISUAL QUALITY

Currently, Mednik Avenue has 2-story multi-family apartments and surface parking on the west side and Belvedere Community Regional Park on the east. Under the alternative, the lanes of Mednik Avenue would be adjusted to accommodate the new light rail line down the center of the roadway. The LRT Alternative would create a strong horizontal line across this view of the apartment buildings and surface parking lots. The change in visual quality resulting from the Build Alternative would be minor.

Key View 5-LRT - Visual Quality for LRT Alternative

	Rating	Comments
Vividness (V)	4.5	The vividness would be moderate – the existing trees soften the view of the LRT Alternative, but the elevated light rail line would be the dominate element in the view.
Intactness (I)	2.0	The intactness is low - the introduction of another man-made object encroaches into the view.
Unity (U)	3.5	The unity is moderately low – the elevated light rail creates a clean and simple horizontal line, but does not add any positive aesthetic features to the view.
Proposed Built Alternative Visual Quality (P) $([V+I+U]/3)$	3.3	

Change in Visual Quality (LRT Alternative)	-0.4
--	------

RESOURCE CHANGE

There would be a minor change to visual quality. Change in visual character would have moderately poor compatibility (-1.0) with the existing area since the new overhead structure would create a competing urban focal point near a park with an otherwise suburban view. The resulting resource change would be a low negative change (-0.7).

VIEWER RESPONSE

Belvedere Community Regional Park is a popular park with a baseball field, soccer field, skate park, tennis courts, playgrounds, and picnic areas. A new community pool is planned for the park. Most viewers would be from the pedestrian recreation group. With the elevated light rail line, sensitivity and viewer exposure to the LRT Alternative would be moderately high. Viewers would be moderately close to the site for a moderately high duration. Viewers would likely be aware of the changes and value the existing visual resource. Overall viewer awareness would be moderately high (-5.0).

RESULTING VISUAL IMPACT

The visual impact of the LRT Alternative's exposure along Mednik Avenue in Key View 5-LRT would be moderate (-2.9). The light rail line would result in a reduced visual quality because of less vividness and intactness. The visual quality would be reduced as the elevated light rail line cuts across the backdrop of Belvedere Community Regional Park, obscuring a large portion of the neighborhood background. Unity would remain close to the same. The resulting visual resource change would be very low. Viewer response in this recreation area would be moderately high.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
5-LRT	Recreation	-0.7	-5.0	-2.9

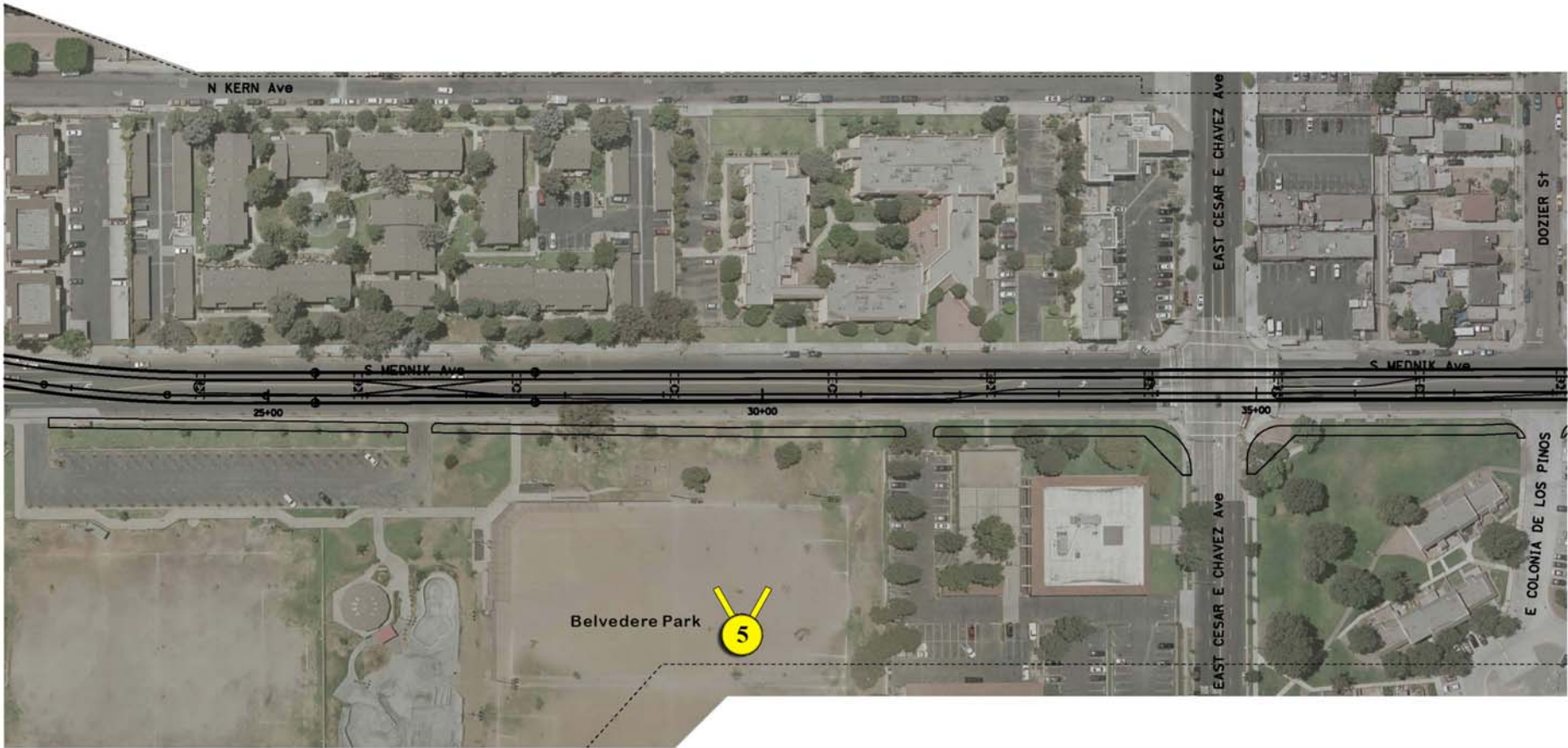
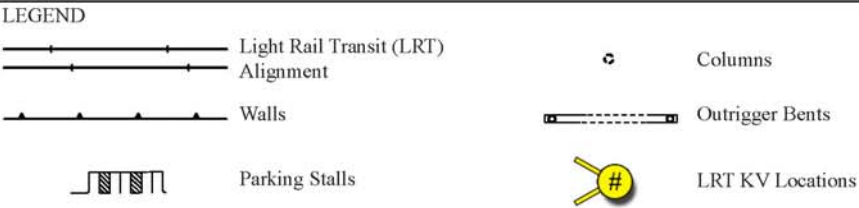
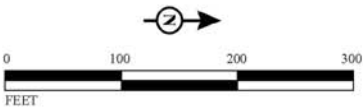


FIGURE 8-15



SR 710 North Study
Key View 5-LRT Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-15 KEY VIEW 5-LRT LOCATION



Existing Condition



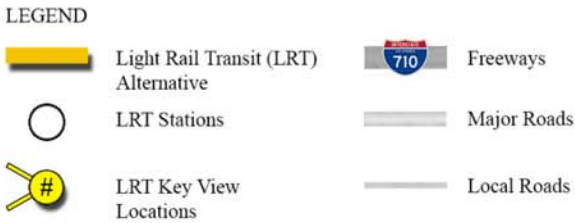
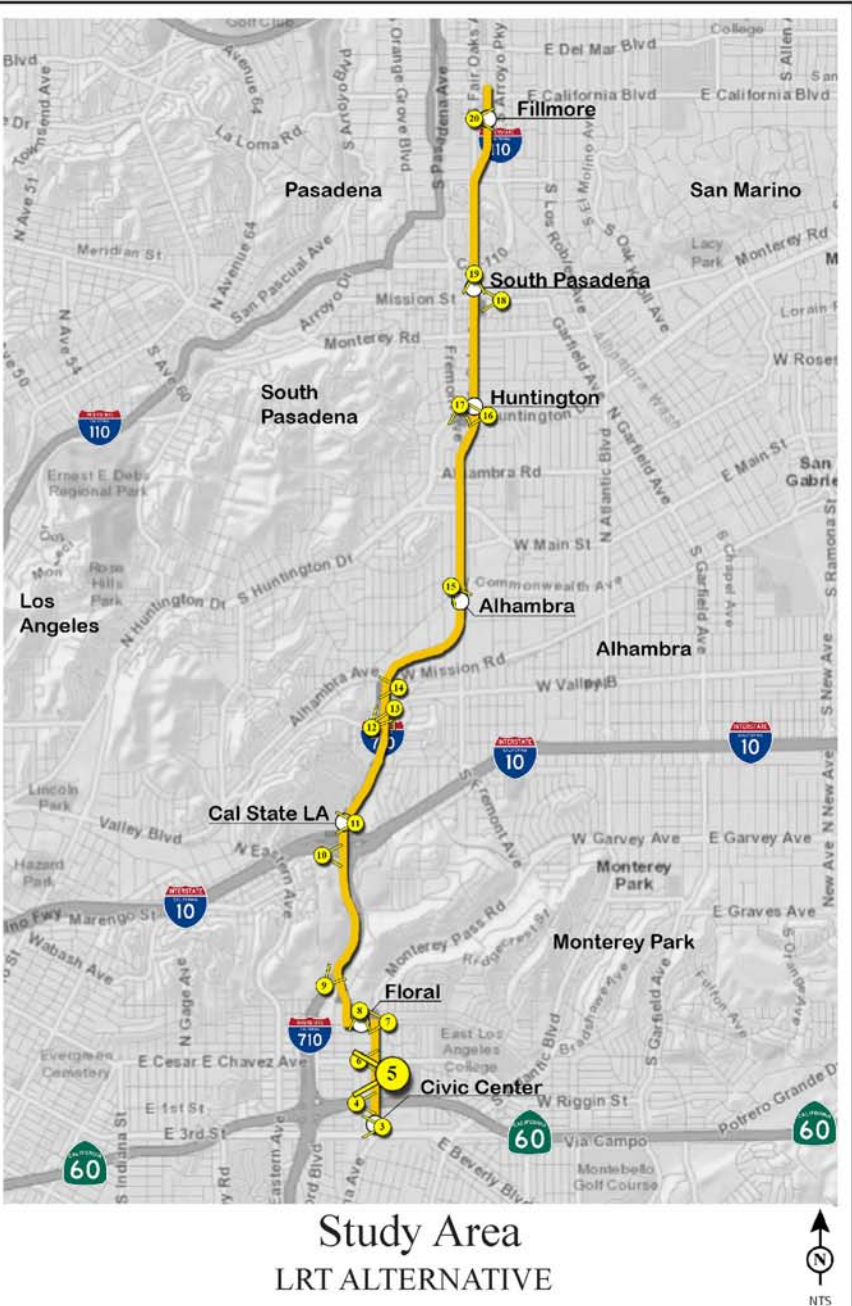
Visual Simulation: Light Rail Transit running above N. Mednik Ave.

KEY VIEW 5-LRT

Belvedere Community Regional Park
4914 E. Cesar Chavez Avenue
City of East Los Angeles, CA 90022

GPS Location:
Latitude = 34° 2' 2.38"N
Longitude = 118° 9' 39.74"W
Heading = 271° W

The location of Key View 5-LRT is within Belvedere Community Regional Park and was taken from the open field in the Park. The view looks towards the proposed elevated Light Rail Transit running above N. Mednik Avenue.



SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-16 KEY VIEW 5-LRT DESCRIPTION

SR 710 North Study
Key View 5-LRT Description
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

Key View 6-LRT (Figures 8-17 and 8-18)**ORIENTATION**

As shown in Figure 8-17, E Cesar Chavez Avenue is a major commercial street that crosses Mednik Avenue. The existing setting and visual simulation for Key View 6-LRT are shown in Figure 8-18.

EXISTING VISUAL QUALITY

The location of Key View 6-LRT is on E Cesar Chavez Avenue a block west of Mednik Avenue. With an assortment of commercial businesses, the existing visual quality of this view is moderately low (3.5).

	Rating	Comments
Vividness (V)	3.5	The existing vividness is moderately low – the streetscape is clean, but the building facades and associated signage compete for attention. The street trees help bring some order to the public realm by visually framing the surface of the street.
Intactness (I)	3.5	The existing intactness is moderately low – signage detracts from the street plantings as do the light fixtures to a lesser degree.
Unity (U)	3.5	The existing unity is moderately low – competing signage lacks a cohesive pattern and neutralizes the uniform mass of the street in the foreground.
Existing Visual Quality (E) ($[V+I+U]/3$)	3.5	

PROPOSED PROJECT FEATURES

At this location, the proposed LRT Alternative would be elevated +/-34 feet above the street and be supported by thick columns spaced far apart.

CHANGE TO VISUAL QUALITY

Currently, E Cesar Chavez Avenue has 1-story commercial businesses and surface parking on the west side of Mednik Avenue and multi-family apartments, commercial businesses, and surface parking on the east side. Under the alternative, the lanes of Mednik Avenue would be adjusted to accommodate the new LRT Alternative down the center of the roadway. The streetscape view would be affected with the introduction of the LRT Alternative and the associated columns. The change in visual quality resulting from the Build Alternative would be minor.

Key View 6-LRT - Visual Quality for LRT Alternative

	Rating	Comments
Vividness (V)	4.0	The vividness would be moderate – the elevated light rail line dominates the approaching intersection and creates a memorable element.
Intactness (I)	2.0	The intactness would be low – the introduction of another man-made object (bridge and support columns) encroaches into the view.
Unity (U)	3.0	The unity would be moderately low – the elevated light rail creates a clean line, but does not contribute any positive aesthetics to the view and its uniformity.
Proposed Built Alternative Visual Quality (P) ($[V+I+U]/3$)	3.0	

Change in Visual Quality (LRT Alternative)	-0.5
---	------

RESOURCE CHANGE

There would be a minor change to visual quality. Change in visual character would have moderately poor compatibility (-1.0) with the existing area since the new overhead structure would create a competing urban focal point in an otherwise suburban view. The resulting resource change would be a low negative change (-0.8).

VIEWER RESPONSE

The intersection of E Cesar Chavez Avenue and Mednik Avenue is a busy commercial intersection with multi-family apartments on the northeast corner. Viewer groups include commercial pedestrians and motorists. Viewer sensitivity would be moderately low due to preoccupation with shopping, low awareness, and moderately low local values. Viewer exposure to the LRT Alternative would be moderately high due to the close location to the elevated light rail line, moderate duration and quantity of viewers. Overall viewer response would be moderate (-4.0).

RESULTING VISUAL IMPACT

Under the alternative, the visual impact in Key View 6-LRT would be moderately low (-2.4) after the introduction of the LRT Alternative on Mednik Avenue. This change in visual quality of the elevated light rail line would result in an increase of vividness and a decrease in intactness and unity, as the Build Alternative interrupts the view down E Cesar Chavez Avenue. The visual resource change would be low. Viewer response would be moderate.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
6-LRT	Commercial	-0.8	-4.0	-2.4

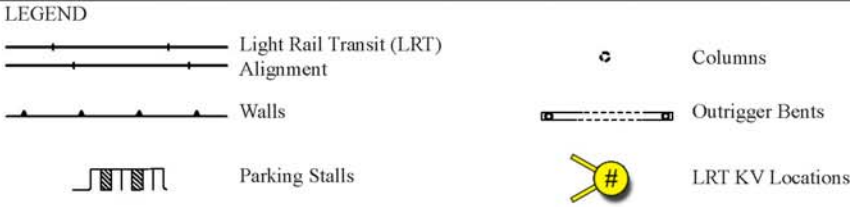
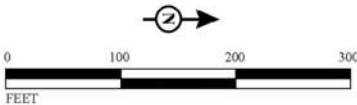


FIGURE 8-17

SR 710 North Study
Key View 6-LRT Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-17 KEY VIEW 6-LRT LOCATION



Existing Condition



Visual Simulation: Light Rail Transit running above N. Mednik Ave.

KEY VIEW 6-LRT

4760 East Cesar E. Chavez Avenue.
City of East Los Angeles, CA 90022

GPS Location:
Latitude = 34° 2'25.88"N
Longitude = 118° 9'45.98"W
Heading = 91° E

The location of Key View 6-LRT was taken place on East Cesar E. Chavez a block west of Mednik Avenue, and outside of Denny's restaurant. The view looks east towards the proposed elevated Light Rail Transit running above N. Mednik Avenue.

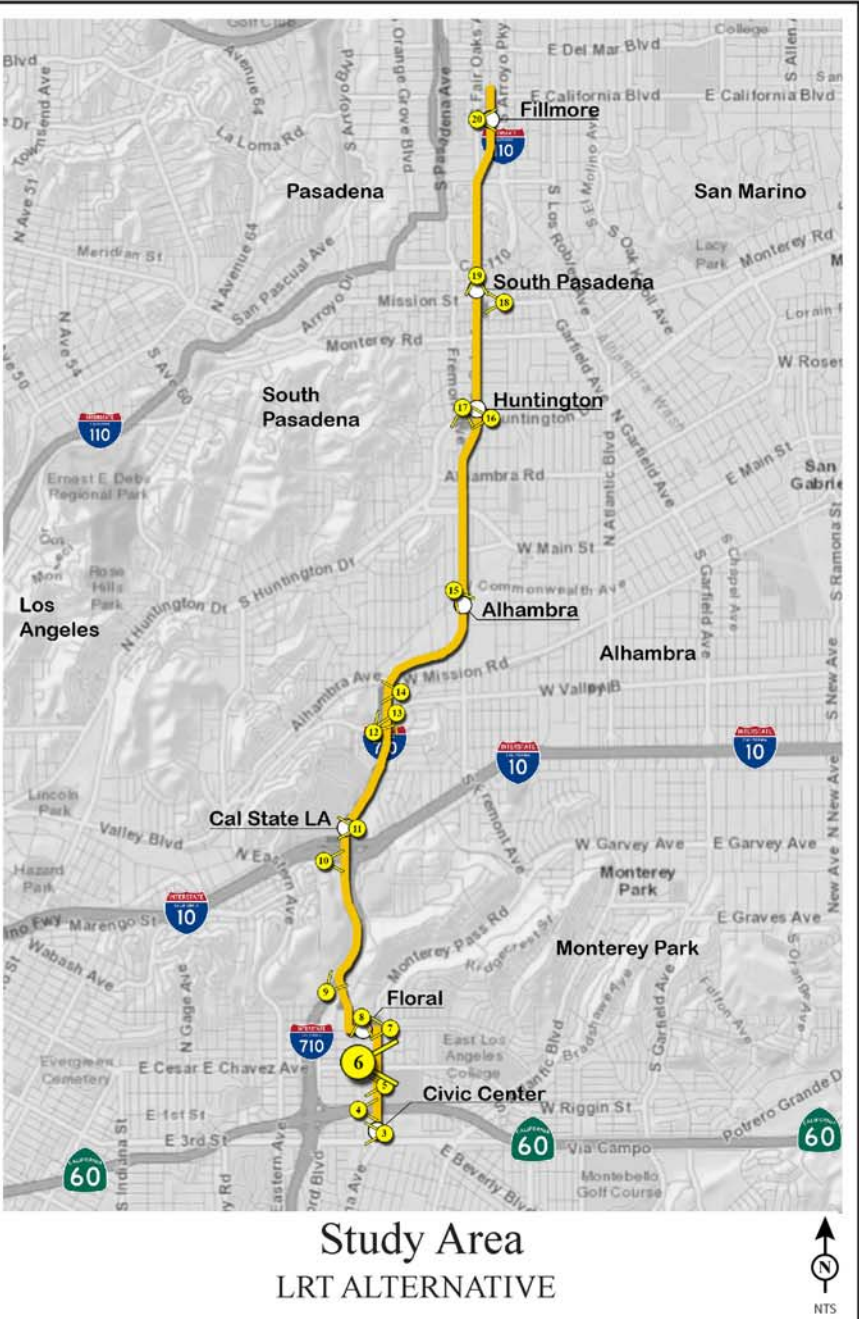


FIGURE 8-18



SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-18 KEY VIEW 6-LRT DESCRIPTION

SR 710 North Study
Key View 6-LRT Description
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

Key View 7-LRT (Figures 8-19 and 8-20)**ORIENTATION**

As shown in Figure 8-19, Floral Drive is a major commercial and residential street that crosses Mednik Avenue. The existing setting and visual simulation for Key View 7-LRT are shown in Figure 8-20.

EXISTING VISUAL QUALITY

Key View 7-LRT is located on Floral Drive just east of Mednik Avenue. The south side of Floral Drive comprises a mixture of single-story commercial and industrial buildings and multi-family apartments are located on the southeast and northeast corners of Floral Drive and Mednik Avenue. The market store on the northeast corner of Floral Drive and Mednik Avenue has prominent signage and several of the single-story industrial sites west of the store along Floral Drive are salvage yards visible from the street. With this assortment of commercial and industrial uses across the street from the vegetated slope of the Monterey Business Center Park, the existing visual quality of this view is moderately low (3.3).

	Rating	Comments
Vividness (V)	4.0	The existing vividness is moderate – the commercial strip of businesses along the south side of Floral Drive contrasts with the heavily landscaped slope of trees at the Monterey Park Business Center.
Intactness (I)	3.5	The existing intactness is moderately low – the commercial strip of businesses along the south side of Floral Drive contrasts with the heavily landscaped slope of the Monterey Park Business Center.
Unity (U)	2.5	The existing unity is low – the heavily developed south side of Floral Drive is a contrast to the vegetated slope of the Monterey Park Business Center.
Existing Visual Quality (E) [(V+I+U)/3]	3.3	

PROPOSED PROJECT FEATURES

At this location, the proposed LRT would be elevated 45 feet above the street and be supported by five pairs of columns.

CHANGE TO VISUAL QUALITY

Currently, Floral Drive has 1-story commercial businesses and surface parking on both sides of Mednik Avenue. Under the LRT Alternative, the lanes of Mednik Avenue would be adjusted to accommodate the new light rail line down the center of the roadway. At the corner, the elevated rail line would cut across the Super Salud Liquor and Market property. The proposed Floral Station would be in the background of this view along the southern boundary of the Monterey Park Business Center. Trees would need to be removed for the construction of the elevated rail line and station. The visual quality change resulting from the Build Alternative would be minor.

Key View 7-LRT - Visual Quality for LRT Alternative

	Rating	Comments
Vividness (V)	4.5	The vividness would be moderate - the elevated light rail line would dominate the horizon at the intersection of Floral Drive and Mednik Avenue.
Intactness (I)	2.5	The intactness would be low – another man-made object creates a large encroachment to the streetscape.
Unity (U)	2.5	The unity would be low – the elevated light rail line dominates the horizon at the intersection of Floral Drive and Mednik Avenue.
Proposed Built Alternative Visual Quality (P) ($[V+I+U]/3$)	3.2	

Change in Visual Quality (LRT Alternative)	-0.1
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RESOURCE CHANGE

There would be a minor change to visual quality. Change in visual character would have moderately poor compatibility (-1.0) with the existing area since the new overhead structure would change the scale and focal point of the view. The additional mass and line of the overhead clash with the existing view. The resulting resource change would be a low negative change (-0.6).

VIEWER RESPONSE

The intersection of Floral Drive and Mednik Avenue is a busy commercial intersection with multi-family apartments on the southeast corner. Several apartment patios face Mednik Avenue and pedestrians frequently use the sidewalks between the neighborhood, the businesses, and Belvedere Park. Viewer groups include commercial and residential motorists and pedestrians. Viewers would have high sensitivity because of high awareness, local values, and unstructured activities. Viewers would have moderately high exposure to the LRT alternative due to the close proximity to the elevated light rail line, high duration of residential viewership, and moderate number of viewers. Overall viewer response would be high (-5.5).

RESULTING VISUAL IMPACT

Under the alternative, the visual impact in Key View 7-LRT would be moderate (-3.0). The elevated light rail line would dominate the horizon, resulting in visual character with moderately poor compatibility with the existing view. Vividness would increase due to the scale of the LRT Alternative dominating the intersection. The elevated light rail line would result in less intactness due to the numerous columns visible along Flora Avenue. Unity would remain close to the same. The visual quality would be reduced a minor amount. Viewer awareness at this commercial and residential location would be high.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
7-LRT	Commercial, Residential	-0.6	-5.5	-3.0

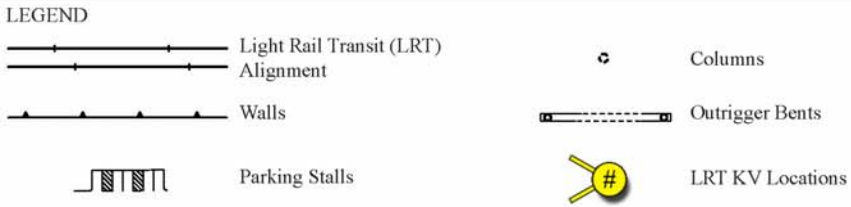
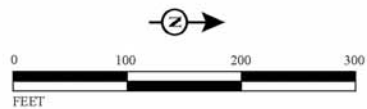
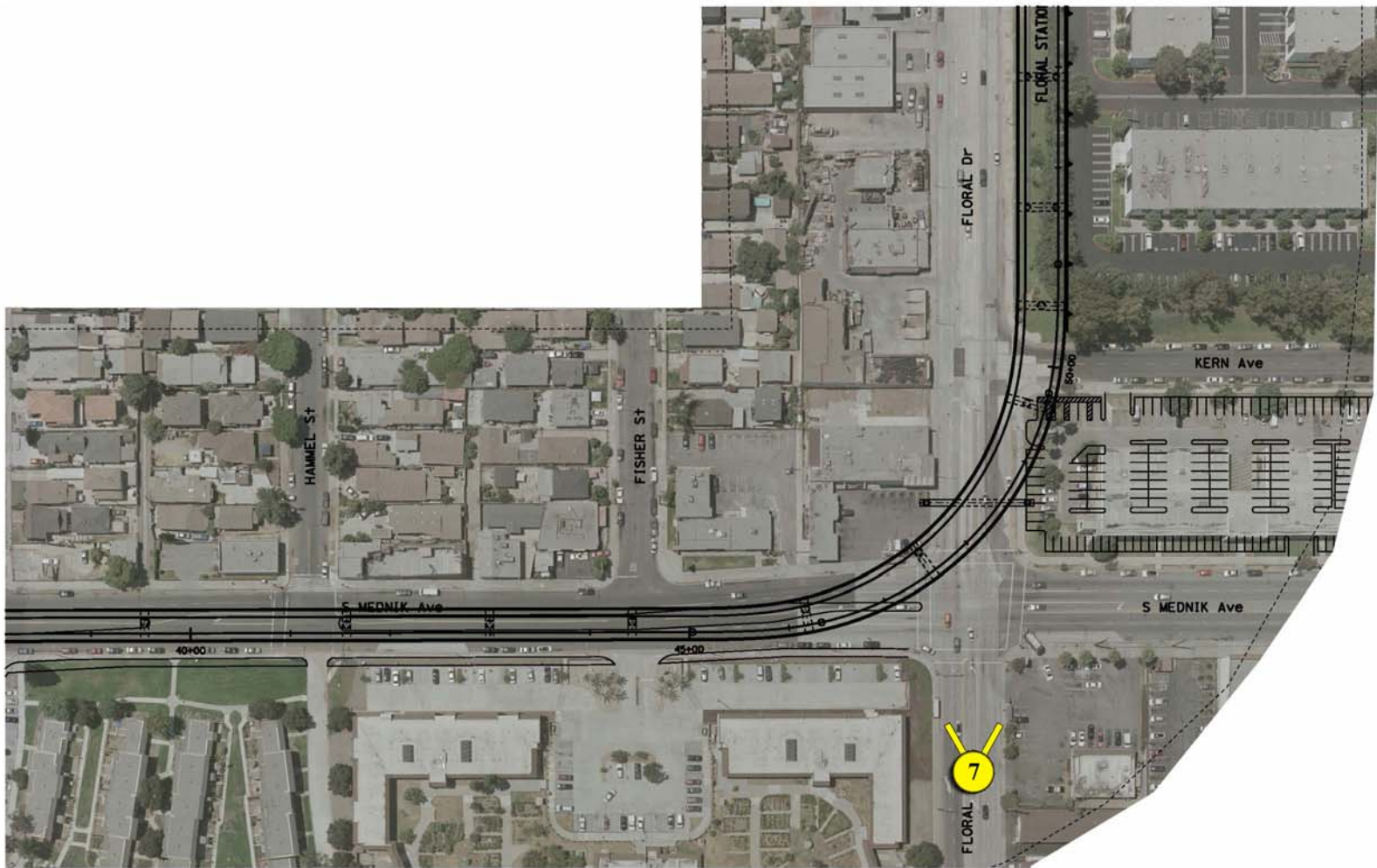


FIGURE 8-19

SR 710 North Study
Key View 7-LRT Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-19 KEY VIEW 7-LRT LOCATION



Existing Condition



Visual Simulation: Light Rail Transit running above N. Mednik Avenue looking towards Floral Station.

KEY VIEW 7-LRT

2349 Floral Drive
City of Monterey Park, CA 91754

GPS Location:
Latitude = 34° 2'39.19"N
Longitude = 118° 9'40.82"W
Heading = 269° W

The location of Key View 7-LRT was taken from the street median on Floral Drive just east of Mednik Avenue. The view looks west towards the proposed elevated Light Rail Transit running above N. Mednik Avenue and curving onto the proposed Floral Station.

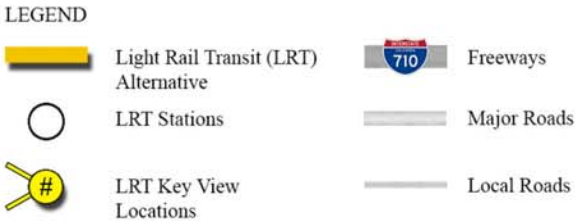
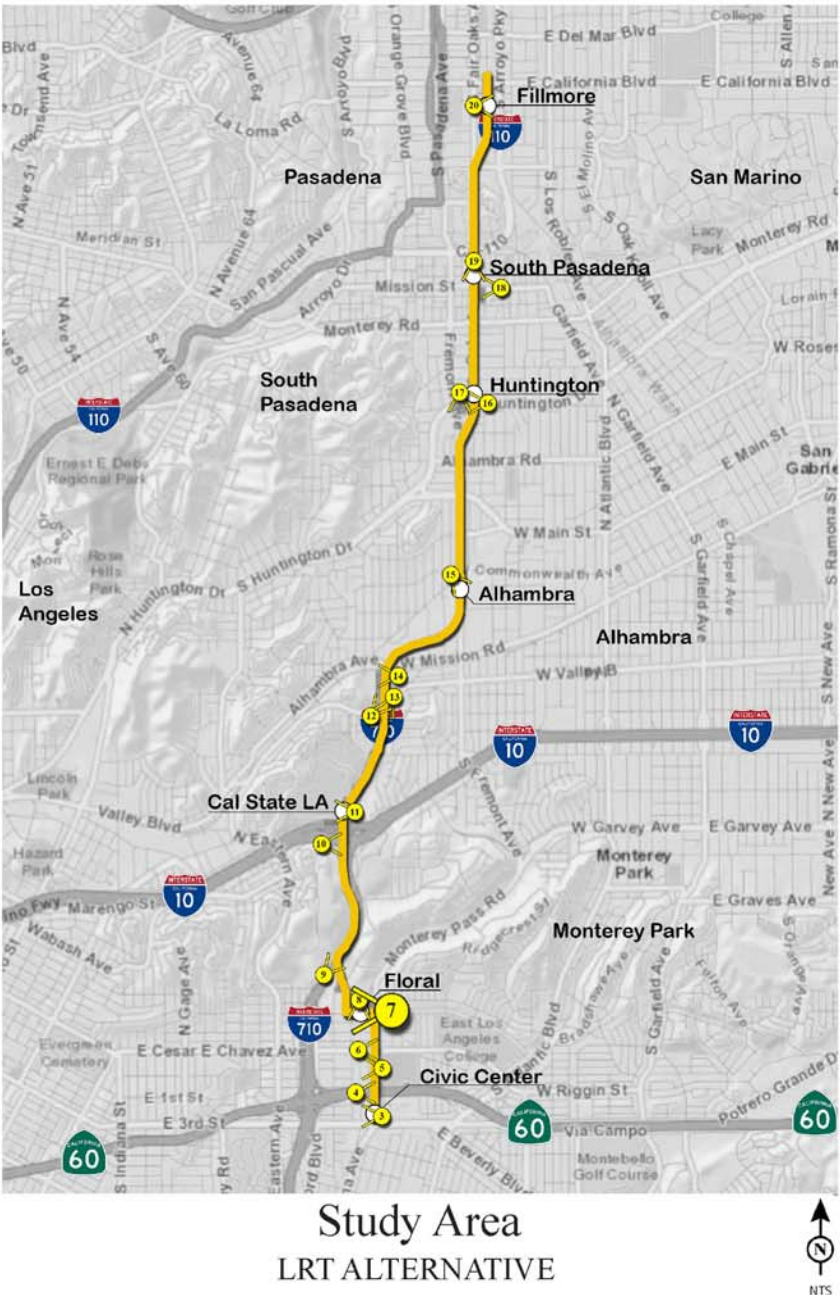


FIGURE 8-20

SR 710 North Study
Key View 7-LRT Description
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-20 KEY VIEW 7-LRT DESCRIPTION

Key View 8-LRT (Figures 8-21 and 8-22)

ORIENTATION

As shown in Figure 8-21, the Monterey Park Business Center is bordered by Floral Drive and Corporate Center Drive. The existing setting and visual simulation for Key View 8-LRT are shown in Figure 8-22.

EXISTING VISUAL QUALITY

Key View 8-LRT is located on the southern side of the Monterey Park Business Center. The perimeter parking lot is screened by trees of Eucalyptus, Sycamore, Sweet Gum, White Mulberry, Shiny Xylosma, and Brazilian Pepper. The existing visual quality of this view is moderate (4.0).

	Rating	Comments
Vividness (V)	4.0	The existing vividness is moderate – edge of parking lot is set with a backdrop of trees and hedges. The large mass grouping of vegetation creates a very memorable visual element.
Intactness (I)	4.5	The existing intactness is moderate – the background of dense vegetation creates a consistent background with no man-made elements encroaching into the view.
Unity (U)	3.5	The existing unity is moderately low – fire department valve and painted curb are the few features that detract from the consistent backdrop of the tree buffer.
Existing Visual Quality (E) ([V+I+U]/3)	4.0	

PROPOSED PROJECT FEATURES

At this location, the proposed light rail station would be on a platform along the southern edge of the surface parking lot.

CHANGE TO VISUAL QUALITY

Currently, the Monterey Park Business Center has a steep vegetated slope south of the parking lot leading down to Floral Drive. Under the alternative, the proposed elevated light rail line would run along this strip of land very close to the top of the slope. The vegetation (including Eucalyptus trees) would need to be removed for the construction of the Floral Station. The visual quality change resulting from this Build Alternative would be minor.

Key View 8-LRT - Visual Quality for LRT Alternative

	Rating	Comments
Vividness (V)	5.0	The vividness would be moderately high – the station would dominate the view from the business park and clearly creates the focal point for the viewer. Additional visual interest will be added by creative architectural features on the station.
Intactness (I)	2.5	The intactness would be low – all existing vegetation would be removed and replaced by of the light rail station.
Unity (U)	4.0	The proposed unity would be moderate – the massing of the structures would bring more unity to this view with its straight geometric lines.
Proposed Built Alternative Visual Quality (P) ($[V+I+U]/3$)	3.8	

Change in Visual Quality (LRT Alternative)	-0.2
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RESOURCE CHANGE

There would be a minor change to visual quality. Change in visual character would have poor compatibility (-2.0) with the existing view since the new overhead station would remove green, screening vegetation from the foreground and replace it with the massive, urban, concrete station. Without the screening vegetation, the view has two competing focal points: the horizon in the background and the station in the foreground. Additionally, the larger scale of the surrounding urban environment is revealed without the screen. The resulting resource change would be a low negative change (-1.1).

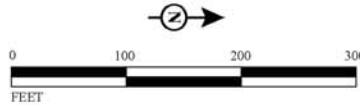
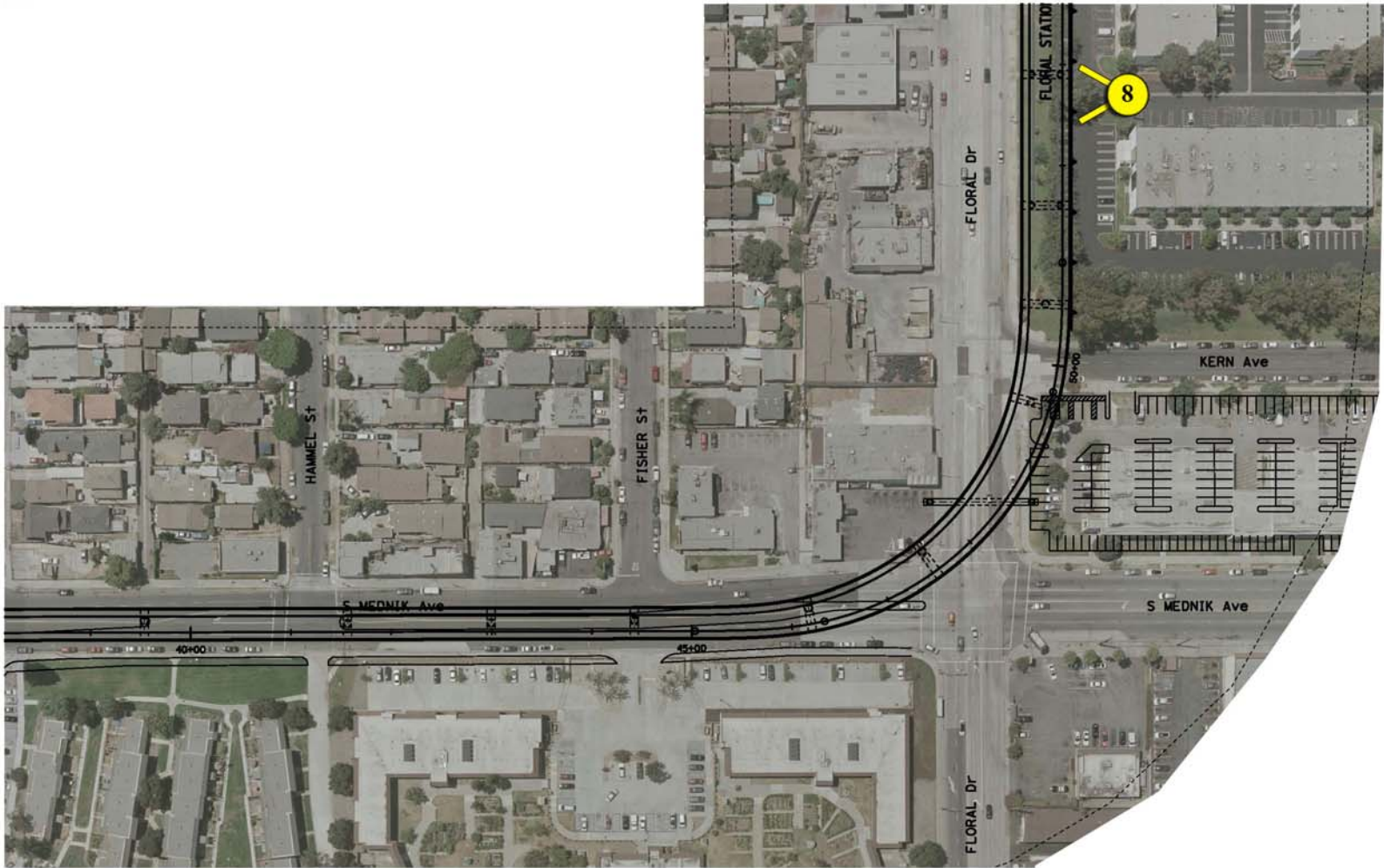
VIEWER RESPONSE

Monterey Park Business Center has many businesses among several buildings. Overall viewer awareness of the LRT Alternative station changes would be moderate (-4.0). Viewer groups include commercial pedestrians and motorists, more specifically business center tenants who can see out of their office windows or motorists driving by in the parking lot. Viewer sensitivity to the loss of trees for the construction of the station and elevated rail line would be moderate since most viewers are likely preoccupied with working even though they would be aware of the changes and may value the existing scenery. Viewer exposure would be moderate as well due to close proximity, moderately low numbers of viewers, and moderate duration of viewing.

RESULTING VISUAL IMPACT

Under the alternative, the visual impact in Key View 8-LRT would be moderate (-2.6) with the high visibility of the light rail station and the loss of trees on the edge of the Monterey Park Business Center. Vividness would increase due to the size and scale of the station. The light rail station would result in a negative change to intactness. The resulting visual resource change would be low. Viewer response would be moderate.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
8-LRT	Commercial	-1.1	-4.0	-2.6



LEGEND

- | | | | |
|--|------------------------------------|--|------------------|
| | Light Rail Transit (LRT) Alignment | | Columns |
| | Walls | | Outrigger Bents |
| | Parking Stalls | | LRT KV Locations |

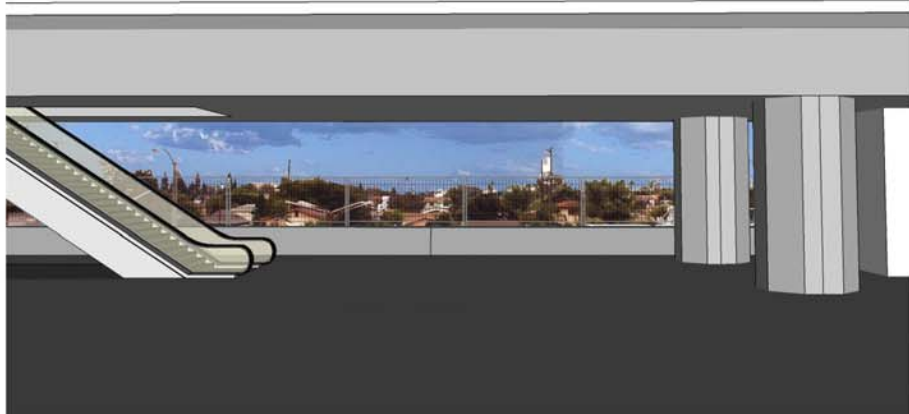
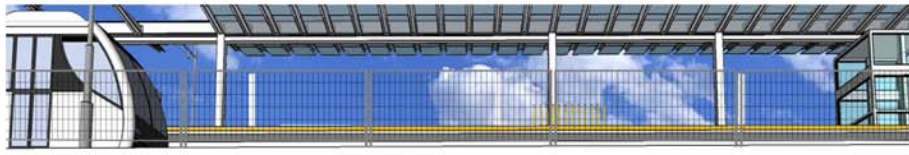
FIGURE 8-21

SR 710 North Study
Key View 8-LRT Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-21 KEY VIEW 8-LRT LOCATION



Existing Condition



Visual Simulation: Proposed Floral Station.

KEY VIEW 8-LRT

4721-4761 Floral Drive
City of Monterey Park, CA 91754

GPS Location:
Latitude = 34° 2'40.90"N
Longitude = 118° 9'49.02"W
Heading = 179° S

The location of Key View 8-LRT was taken from the parking lot of southern side of the Monterey Park Business Center. The view looks south towards at the proposed Floral Station.

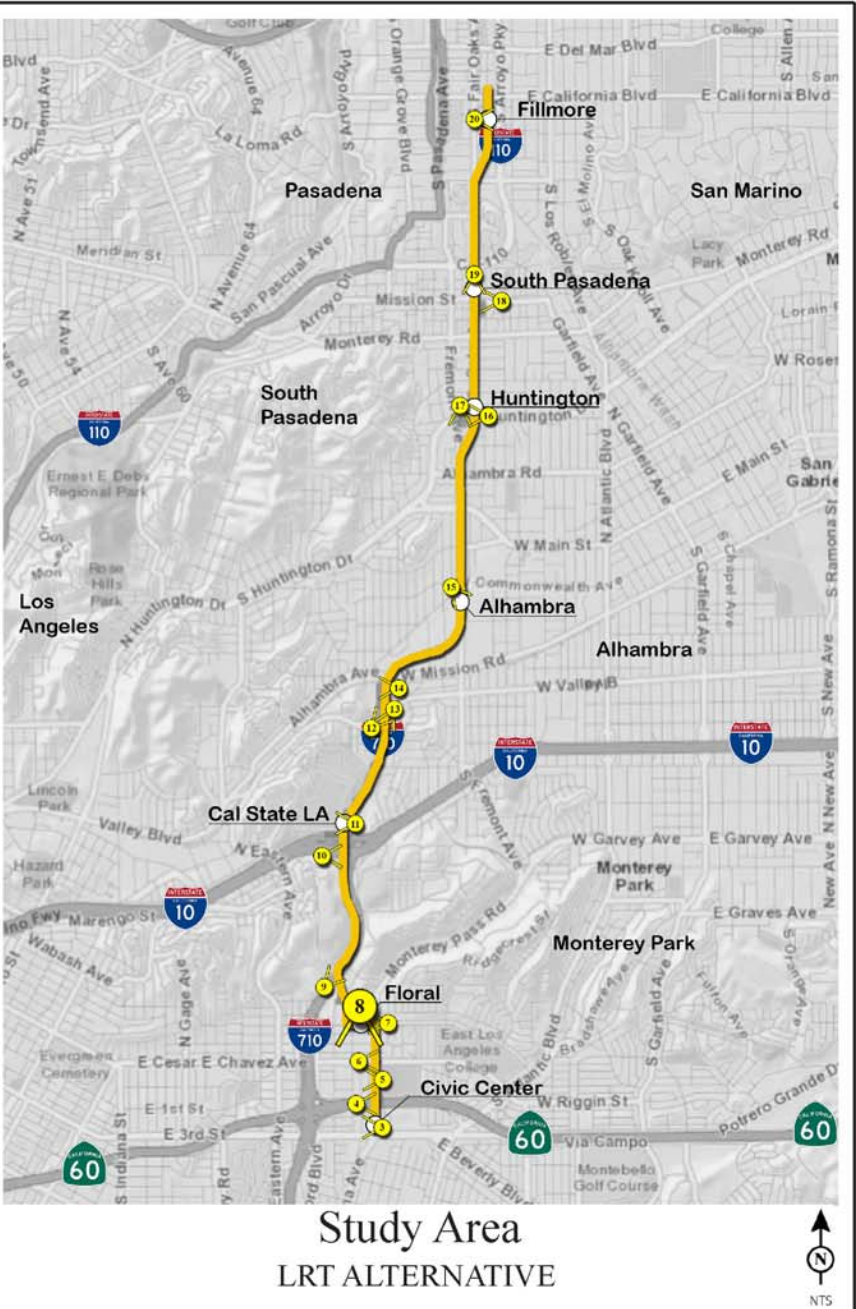


FIGURE 8-22



SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-22 KEY VIEW 8-LRT DESCRIPTION

SR 710 North Study
Key View 8-LRT Description
07-LA-710 (SR 710)
EA 187900
EFTS 0700000191

Key View 9-LRT (Figures 8-23 and 8-24)

ORIENTATION

As shown in Figure 8-23, this view of I-710 is looking north between SR 60 and I-10. The existing setting and visual simulation for Key View 9-LRT is shown in Figure 8-24.

EXISTING VISUAL QUALITY

The location of Key View 9-LRT is on I-710 between commercial office buildings on the east and the Los Angeles County Sheriff's Office property on the west. Vegetation on the east side of the freeway is thick while the western slope is sparsely vegetated. The San Gabriel Mountains can be seen in the background. The existing visual quality of this view is moderately high (5.0).

	Rating	Comments
Vividness (V)	5.5	The existing vividness is moderately high – natural landscape and vegetation on the east side of freeway, an undeveloped hillside on the west side, and a vista of the San Gabriel Mountains straight ahead blend together into a memorable view.
Intactness (I)	4.5	The existing intactness is moderate – the only man-made features which encroach into the view are the freeway itself, the pole lights, and in the distance, fencing at the Monterey Park Golf Course.
Unity (U)	5.0	The existing unity is moderately high - the I-710 freeway cuts through the valley of a relatively underdeveloped stretch of LA County in two large single masses of sky and freeway paving.
Existing Visual Quality (E) [(V+I+U)/3]	5.0	

PROPOSED PROJECT FEATURES

At this location, the proposed LRT would run across the freeway at a height of +/-25 feet and be supported by 4 pairs of columns.

CHANGE TO VISUAL QUALITY

Currently, the I-710 corridor has an open view with vegetation and office buildings on the east and an undeveloped steep slope on the west. A helipad for the Los Angeles County Sheriff's Office is on top of this hill. Under the alternative, the proposed elevated light rail line would run diagonally across the freeway at a height of +/-25 feet above the roadway. Due to the vegetation and the alignment of the track, the proposed light rail line would only be seen above the I-710 ROW, offering little obstruction to the views of the vegetation or office buildings. The visual quality change resulting from the Build Alternative would be moderate.

Key View 9-LRT - Visual Quality for LRT Alternative

	Rating	Comments
Vividness (V)	3.5	The vividness would be moderately low – the introduction of a man-made feature replaces the horizon of trees and most of the view to the San Gabriel Mountains.
Intactness (I)	3.5	The intactness would be moderately low – the elevated light rail line disrupts the natural view of vegetation and the San Gabriel Mountains and adds another layer of man-made elements.
Unity (U)	3.5	The unity would be moderately low – the man-made feature of the light rail line interrupts the view of the freeway corridor and disrupts the visual flow of the Key View.
Proposed Visual Quality (P) [(V+I+U)/3]	3.5	

Change in Visual Quality (LRT Alternative)	-1.5
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RESOURCE CHANGE

There would be a moderate change to visual quality. Change in visual character would have moderately poor compatibility (-0.5) with the existing view since the placement of the new bridge would add a contrasting urban mass that would obscure existing views of green trees and the San Gabriel Mountains in the background. The resulting resource change would be a low negative change (-1.0).

VIEWER RESPONSE

I-710 is a busy corridor between Long Beach and W. Valley Boulevard in Alhambra with a speed limit of 65 mph. Viewer groups would include freeway motorists and commercial motorists. Viewer exposure to the LRT Alternative would be moderate due to the large number and closeness to the elevated rail line crossing over the freeway but short view duration. Viewer sensitivity would be low due to low local values, and reduced awareness and preoccupation from driving. Overall viewer response would be moderately low (-3.3).

RESULTING VISUAL IMPACT

Under the alternative, the visual impact in Key View 9-LRT would be moderately low (-2.1) from the view of the light rail line coming over the freeway. The LRT Alternative would result in less vividness, intactness, and unity due to the LRT obscuring the horizon above the freeway and blocking the view of the San Gabriel Mountains beyond. Visual resource change would be low with this new portion of aerial infrastructure. Viewer response would be moderately low.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
9-LRT	Freeway, Commercial	-1.0	-3.3	-2.1

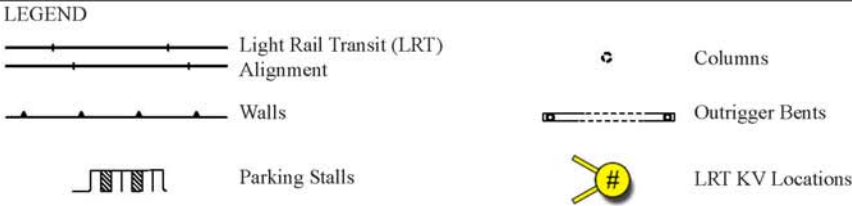
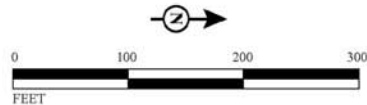
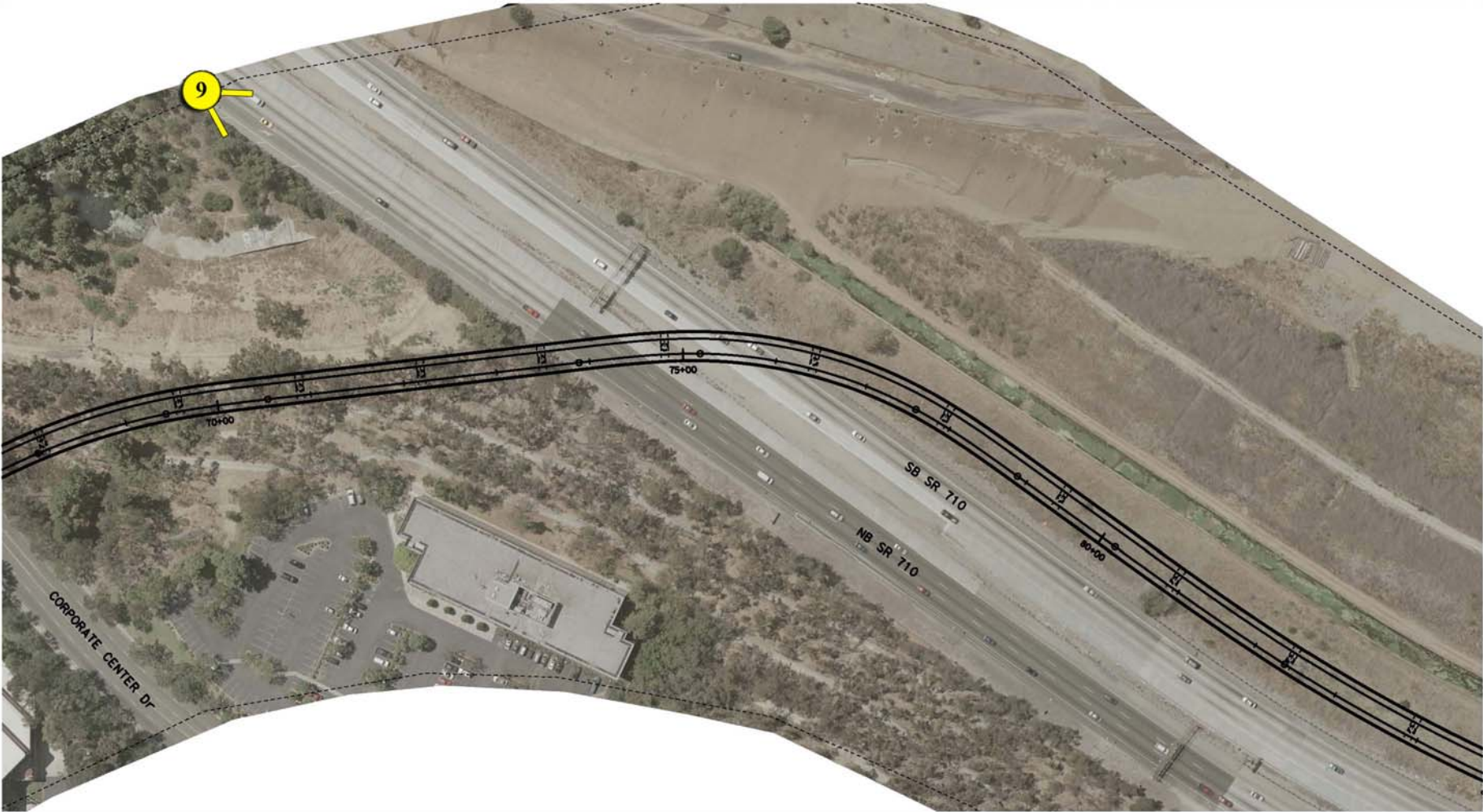


FIGURE 8-23

SR 710 North Study
Key View 9-LRT Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00.00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-23 KEY VIEW 9-LRT LOCATION



Existing Condition



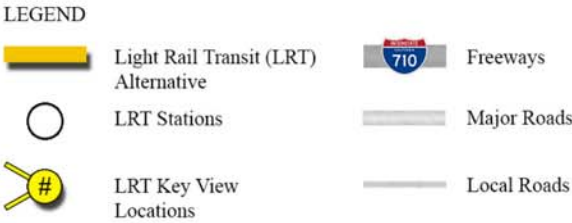
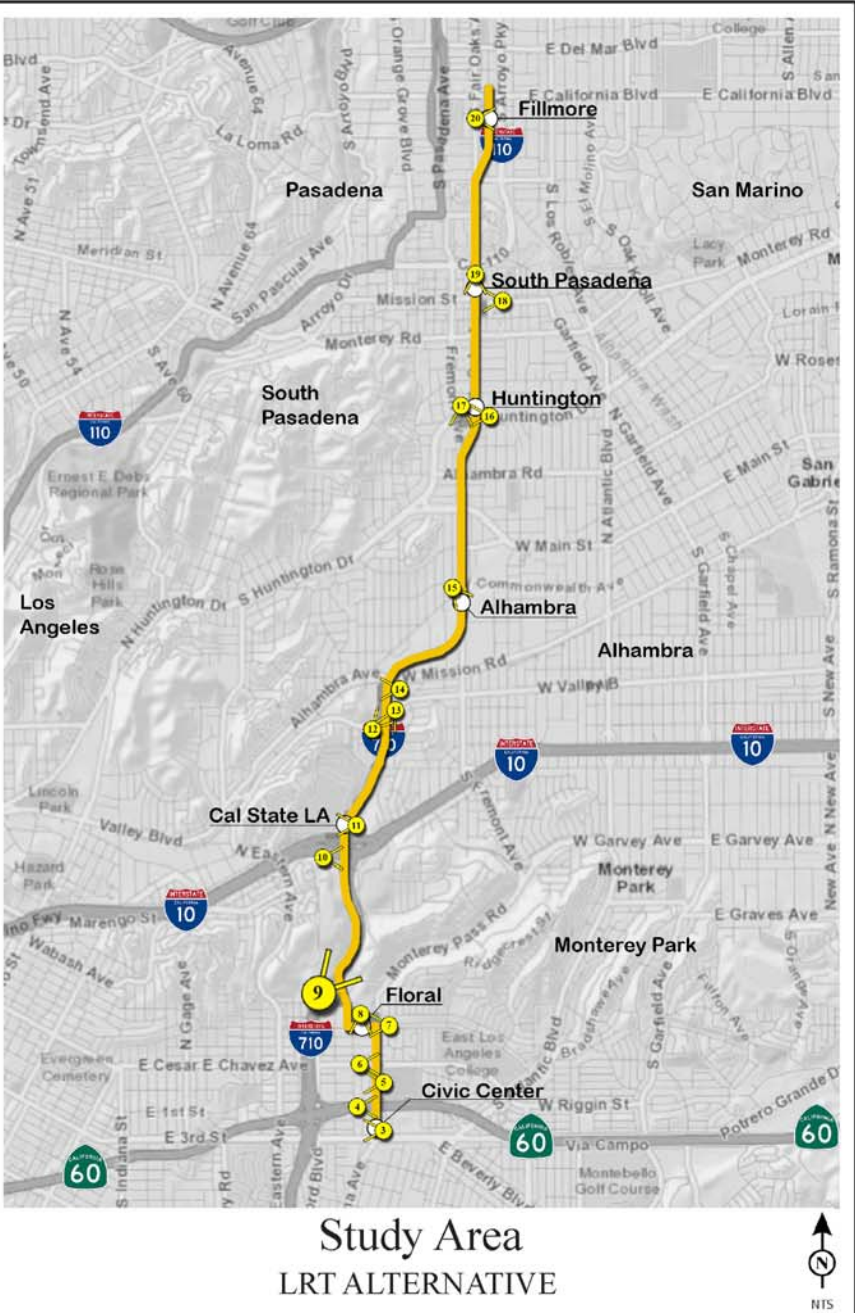
Visual Simulation: Light Rail Transit crossing the SR-710 Freeway.

KEY VIEW 9-LRT

SR-710 Northbound, northeast of Floral Drive crossing
City of East Los Angeles, CA 90022

GPS Location:
Latitude = 34° 2'52.25"N
Longitude = 118° 10'2.59"W
Heading = 34° NE

The location of Key View 9-LRT was taken on the SR-710 Northbound between commercial office buildings on the east and the Los Angeles County Sheriff's Office property on the west. The view looks northeast towards the proposed elevated Light Rail Transit crossing the SR-710 freeway.



SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-24 KEY VIEW 9-LRT DESCRIPTION

SR 710 North Study
Key View 9-LRT Description
07-LA-710 (SR 710)
EA 187900
EFTS 0700000191

Key View 10-LRT (Figures 8-25 and 8-26)

ORIENTATION

As shown in Figure 8-25, I-10 is the major freeway that I- 710 crosses. The existing setting and visual simulation for Key View 10-LRT are shown in Figure 8-26.

EXISTING VISUAL QUALITY

The location of Key View 10-LRT is on I-10 looking east. In the background, SR 710 is crossing above it. The visual quality of this view is moderately low (3.5).

	Rating	Comments
Vividness (V)	3.5	The existing vividness is moderately low – the view of the major freeway interchange of I-10 and I-710 is somewhat offset by the wooded residential hillside of Monterey Park in the background. The minor visual focal point is created by the mass of vegetation in the middle ground of the view.
Intactness (I)	3.5	The existing intactness is moderately low – the foreground of the I-710 bridges distracts from the wooded residential hillside beyond. Additional intrusions into the view are caused by the light fixtures.
Unity (U)	3.5	The existing unity is moderately low – the man-made features of I-10 and I-710 are highly visible in front of the wooded residential hillside of Monterey Park and detract from the smooth flow of the freeway in the foreground and the sky on the upper half of the view.
Existing Visual Quality (E) ([V+I+U]/3)	3.5	

PROPOSED PROJECT FEATURES

At this location, the proposed light rail line would run across the I-10 freeway at a height of +/- 85 feet and be supported by 2 pairs of columns.

CHANGE TO VISUAL QUALITY

Currently, the I-10 corridor has an open view of the I-710 overpass and a wooded residential hill in the background. Under the alternative, the proposed elevated light rail line would run across the freeway at a height of +/- 85 feet above the roadway. From this Key View vantage point, the elevated light rail line would rise higher than the I-710 bridges and would obscure a small portion of the wooded hill beyond. The Build Alternative would not change the visual quality rating.

Key View 10-LRT - Visual Quality for LRT Alternative

	Rating	Comments
Vividness (V)	3.5	The vividness is moderately low – the elevated light rail line adds another man-made feature to the existing freeway bridges in the view. This does not add to the visual interest in the view.
Intactness (I)	3.5	The intactness is moderately low – the higher profile of the elevated light rail blocks the bottom of the wooded hillside in the background. . Also the addition of the elevated rails do not block any views of the light fixtures.
Unity (U)	3.5	The unity is moderately low - another addition of concrete infrastructure adds to the existing bridges and limits views of the wooded hillside beyond and still detracts from the smooth blending of the freeway and sky masses.
Proposed Built Alternative Visual Quality (P) ($[V+I+U]/3$)	3.5	
Change in Visual Quality (LRT Alternative)	0.0	

RESOURCE CHANGE

There would be no change to visual quality. Change in visual character would have moderately good compatibility (0.5) with the existing view since the placement of the new bridge would reinforce a pattern of horizontal bridge masses crossing the view. The resulting resource change would be low (0.3).

VIEWER RESPONSE

I-10 is a major freeway from Los Angeles to suburbs to the east. Viewers would include freeway motorists. Viewer sensitivity would be very low since the majority of viewers are not invested in local values and preoccupied with driving. Viewer exposure would be moderately low because of high numbers, close proximity to the light rail line, but very short durations. The proposed visual quality of this view would be reduced. Overall viewer response would be low (2.0).

RESULTING VISUAL IMPACT

Under this alternative, the visual impact in Key View 10-LRT would be low (1.1). With all of the other fly-over overpasses at this major interchange, the view would have low vividness, intactness and unity. Visual character change would be low, and viewer response for freeway motorists would be low as well.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
10-LRT	Freeway	0.3	2.0	1.1

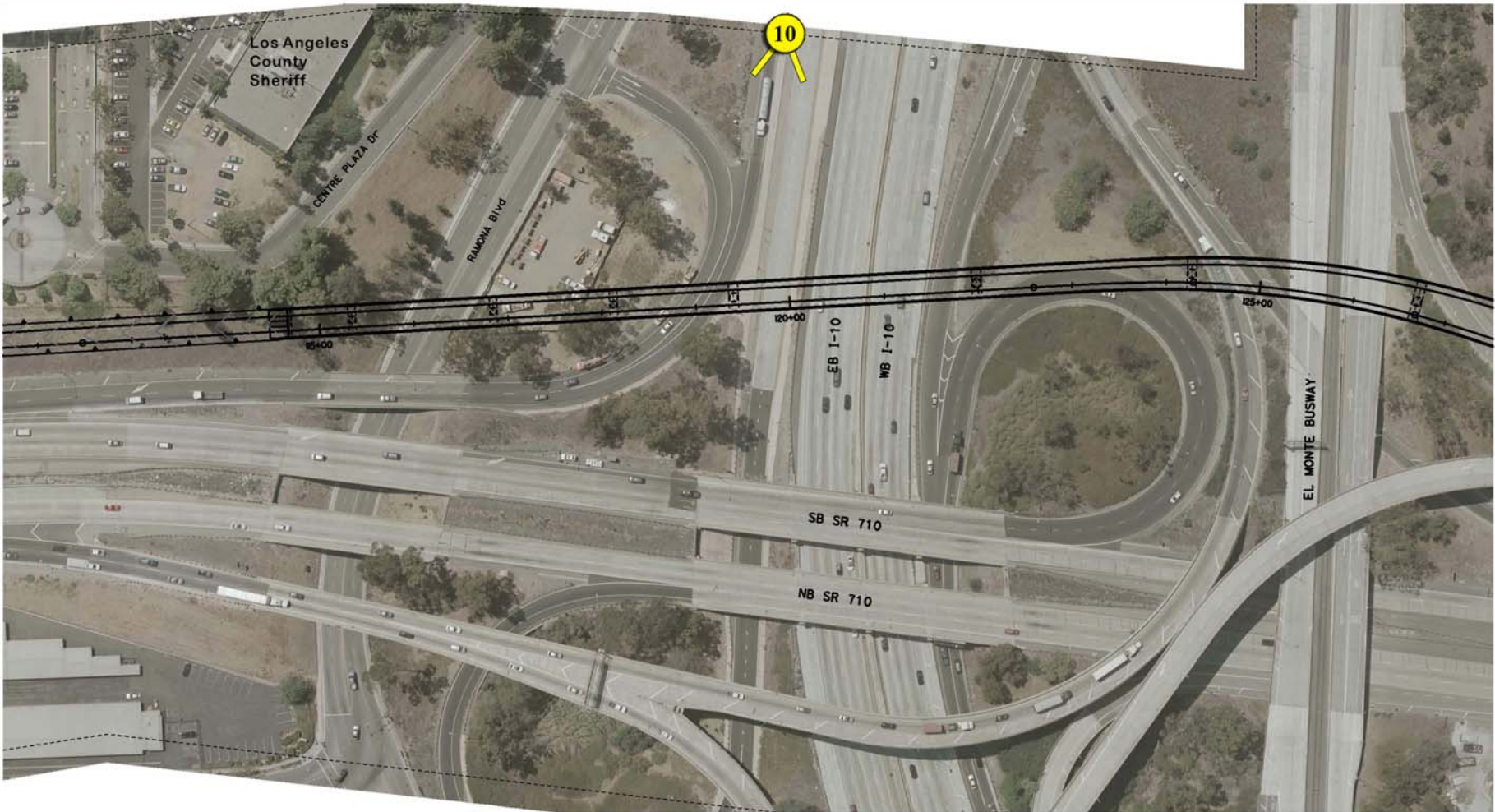
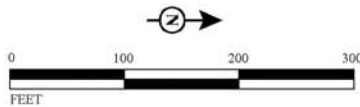


FIGURE 8-25



LEGEND

- | | | | |
|--|------------------------------------|--|------------------|
| | Light Rail Transit (LRT) Alignment | | Columns |
| | Walls | | Outrigger Bents |
| | Parking Stalls | | LRT KV Locations |

SR 710 North Study
Key View 10-LRT Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-25 KEY VIEW 10-LRT LOCATION



Existing Condition



Visual Simulation: Light Rail Transit crossing the I-10 Freeway.

KEY VIEW 10-LRT

I-10 Eastbound at SR-710 Northbound/Southbound Junction
City of Monterey Park, CA 91754

GPS Location:
Latitude = 34° 3' 39.60"N
Longitude = 118° 10' 1.84"W
Heading = 97° E

The location of Key View 10-LRT was taken from the I-10 East/SR-710 North transition ramp/W. Ramona Road off-ramp. The view looks east towards the proposed elevated Light Rail Transit that will run parallel to the SR-710 freeway.

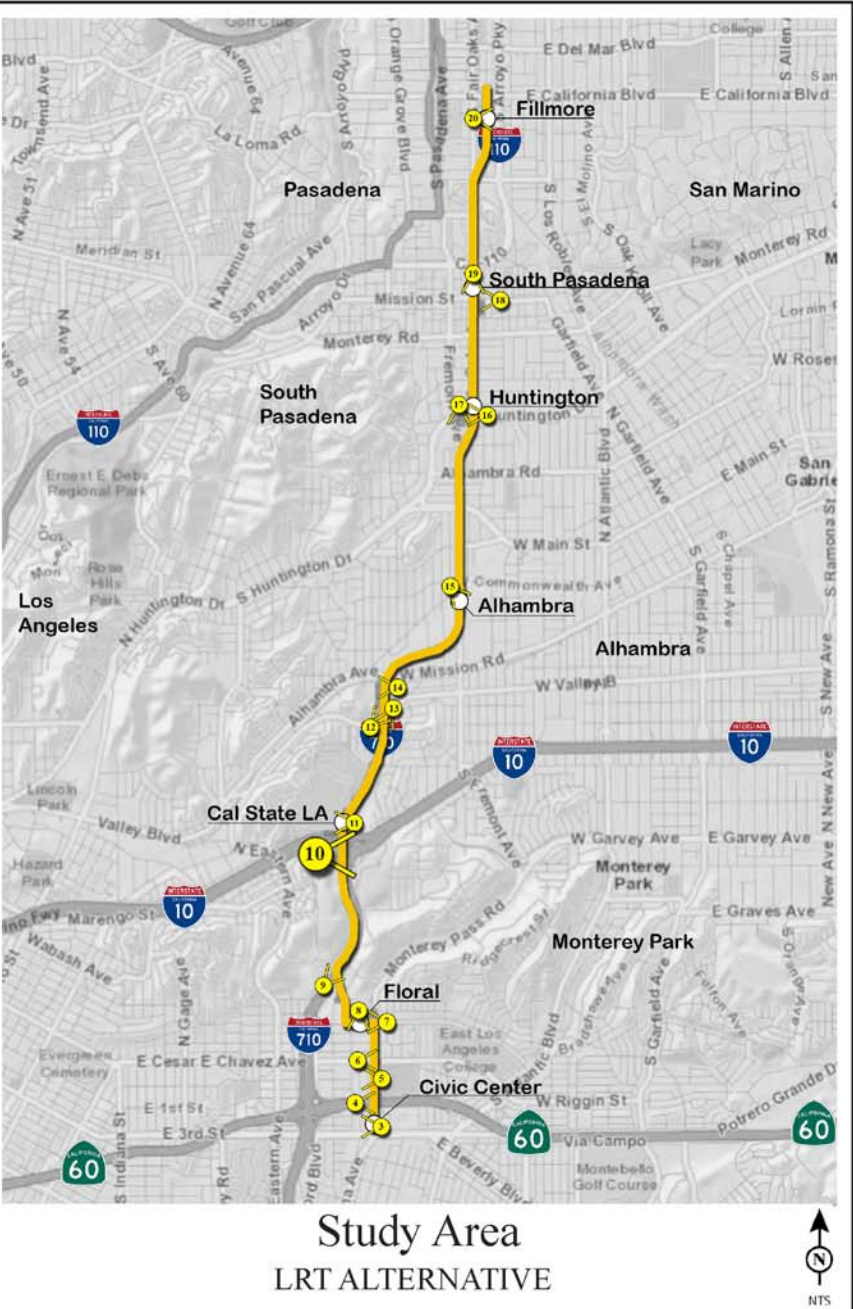


FIGURE 8-26

LEGEND

Light Rail Transit (LRT) Alternative

LRT Stations

LRT Key View Locations

Freeways

Major Roads

Local Roads

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-26 KEY VIEW 10-LRT DESCRIPTION

SR 710 North Study
Key View 10-LRT Description
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

Key View 11-LRT (Figures 8-27 and 8-28)

ORIENTATION

As shown in Figure 8-27, California State University, Los Angeles is located at 5151 State University Drive in Los Angeles. The existing setting and visual simulation for Key View 11-LRT are shown in Figure 8-28.

EXISTING VISUAL QUALITY

The location of Key View 11-LRT takes place on I-710 looking west at the slope below California State University, Los Angeles. The slope is vegetated with groupings of mostly Eucalyptus trees. The existing visual quality of this view is moderate (4.3) due to the large vegetated hillside.

	Rating	Comments
Vividness (V)	5.0	The existing vividness is moderately high – the large hillside over I-710 is planted with groundcovers and large trees work together to create a single vivid focal point.
Intactness (I)	4.0	The existing intactness is moderate – a few utility poles and the fencing atop the retaining wall encroach and reduce the quality of the view.
Unity (U)	4.0	The existing unity is moderate – the guardrail and retaining wall form a strong linear horizontal pattern at the base of the vegetated slope.
Existing Visual Quality (E) ([V+I+U]/3)	4.3	

PROPOSED PROJECT FEATURES

At this location, the light rail line station would be along the upper portion of the hillside. An additional retaining wall would be built above it almost to the top of the slope.

CHANGE TO VISUAL QUALITY

The construction of the light rail station, elevated track, and retaining wall would completely cover the view of the upper portion of the hillside. A few trees would likely need to be removed, although the large shade trees on the lower level of the slope would remain and help to screen the new structure. The light rail line would result in a medium change to visual quality with less vividness and intactness as a contrast to the existing vegetated slope.

Key View 11-LRT - Visual Quality for LRT Alternative

	Rating	Comments
Vividness (V)	3.5	The vividness is moderately low – the light rail station and elevated track would replace the upper portion of the vegetated slope and minimize the primary focal point of the existing view.
Intactness (I)	3.0	The intactness is moderately low – the added man-made feature of the LRT structures intrudes into the view of the vegetated slope.
Unity (U)	4.0	The unity is moderate - the additional linear pattern of the elevated light rail line and retaining wall add to the horizontal pattern of this view.
Proposed Built Alternative Visual Quality (P) $([V+I+U]/3)$	3.5	
Change in Visual Quality (LRT Alternative)	-0.8	

RESOURCE CHANGE

There would be medium change to visual quality. Change in visual character would have moderately poor compatibility (-1.0) with the existing view since the project would remove trees and obscure part of the hillside, creating a more urban view. The resulting resource change would be low (-0.9).

VIEWER RESPONSE

I-710 is a major freeway from Long Beach to Valley Boulevard in Alhambra. Viewers include freeway and education pedestrians and motorists. Viewer sensitivity would be moderately low and viewer exposure would be moderate. Overall viewer response would be moderate (-3.5).

RESULTING VISUAL IMPACT

Under the alternative, the visual impact in Key View 11-LRT would be moderately low (-2.2). The light rail line would result in a medium negative change to visual quality with less vividness and intactness as a contrast to the existing vegetated slope. Visual character change would have moderately poor compatibility with the existing view. Resource change would be low, and viewer response would be moderate.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
11-LRT	Freeway, Education	-0.9	-3.5	-2.2

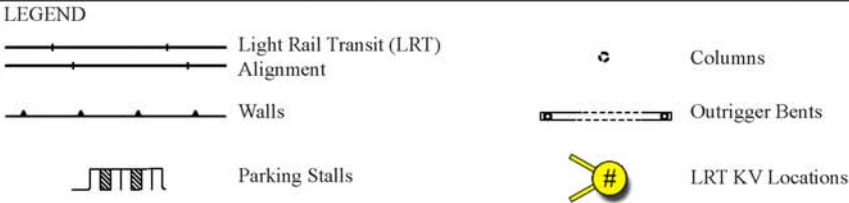
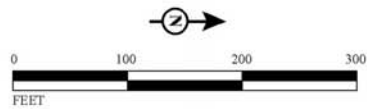


FIGURE 8-27

SR 710 North Study
Key View 11-LRT Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-27 KEY VIEW 11-LRT LOCATION



Existing Condition



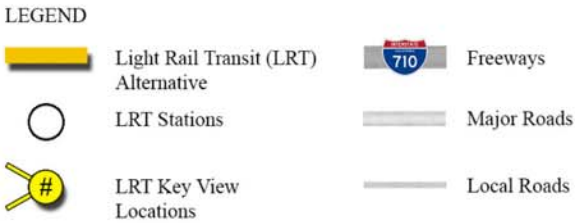
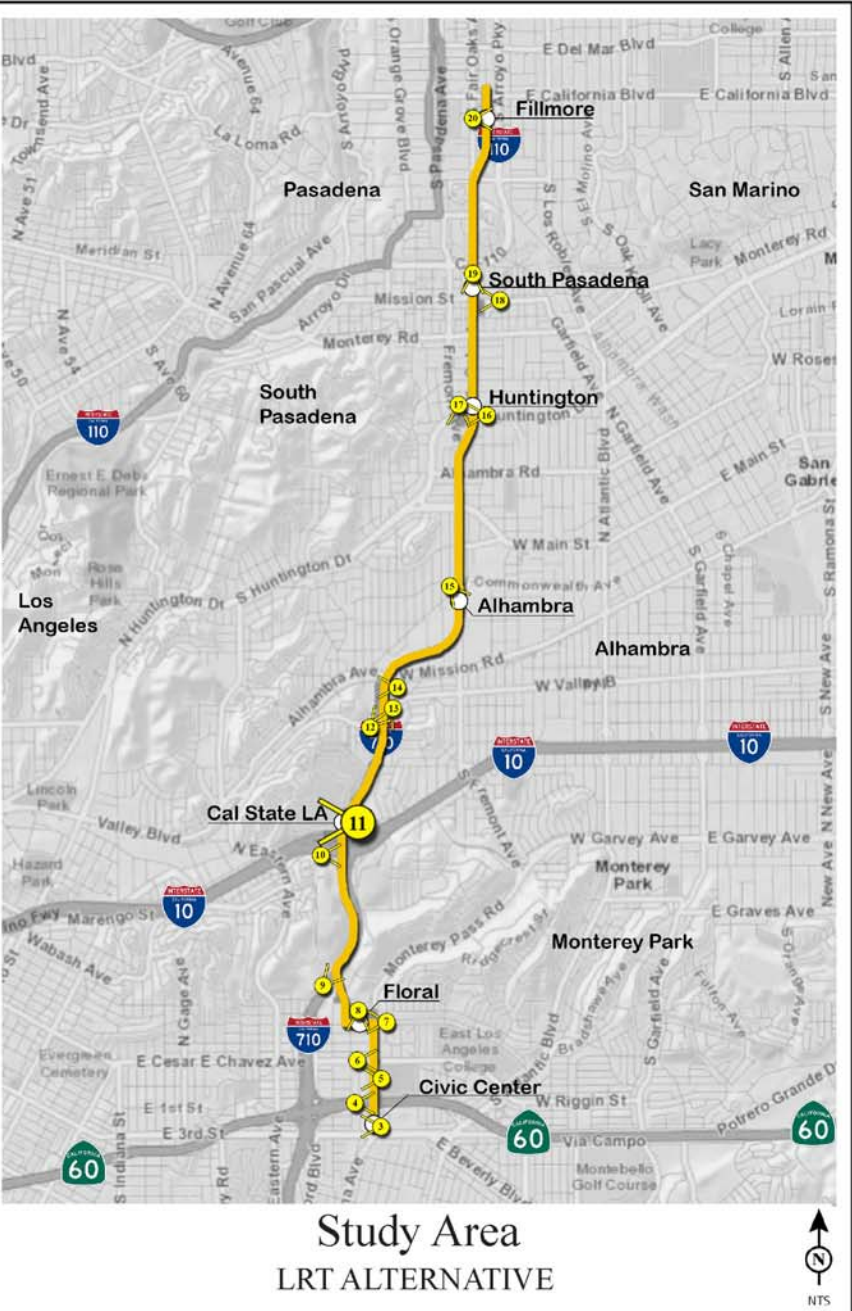
Visual Simulation: Proposed Cal State LA Station.

KEY VIEW 11-LRT

I-10 Westbound to SR-710 Northbound Transition Ramp
City of Los Angeles, CA 90032

GPS Location:
Latitude = 34° 3'48.51"N
Longitude = 118° 9'52.06"W
Heading = 278° W

The location of Key View 11-LRT was taken at the I-10 West to SR-710 North transition ramp. The view looks west toward the proposed California State University Los Angeles (CSU-LA).



SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-28 KEY VIEW 11-LRT DESCRIPTION

SR 710 North Study
Key View 11-LRT Description
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

Key View 12-LRT (Figures 8-29 and 8-30)

ORIENTATION

As shown in Figure 8-29 this view of Valley Boulevard is looking northeast from the entrance of the on-ramp for I-710 South. The existing setting and visual simulation for Key View 12-LRT are shown in Figure 8-30.

EXISTING VISUAL QUALITY

The location of Key View 12-LRT is on Valley Boulevard at the entrance of the on-ramp of I-710 South looking northeast. The berm on the north side of Valley Boulevard is grassed and the existing visual quality of this view is low (2.5).

	Rating	Comments
Vividness (V)	2.5	The existing vividness is low – although the hill is undeveloped, the chain-link fence, utility lines, and signage in the background are distracting and do not provide any visual features that are memorable.
Intactness (I)	2.5	The existing intactness is low – utility lines, traffic signals, and signage encroach into the view.
Unity (U)	2.5	The existing unity is low – high contrast between undeveloped hill, commercial buildings, and signage is very stark and reduces the sense of visual consistency from the Key View.
Existing Visual Quality (E) ($[V+I+U]/3$)	2.5	

PROPOSED PROJECT FEATURES

At this location, the LRT Alternative would be overhead. Support columns would be installed in a new median on Valley Boulevard. A safety railing would be built on top of the elevated track.

CHANGE TO VISUAL QUALITY

Currently, Valley Boulevard is a 4-lane road with 2 turn lanes at the entrance to I-710 South. Under this alternative, a narrow concrete median would be installed to accommodate concrete columns for the LRT Alternative overhead. The view would be dominated by high retaining wall and the LRT overpass. The visual quality change resulting from the Build Alternative would be minor.

Key View 12-LRT - Visual Quality for LRT Alternative

	Rating	Comments
Vividness (V)	2.0	The vividness would be low – the elevated structure of the LRT completely dominates the view of the roadway and lessens the expanse of the street paving leaving very little that is memorable.
Intactness (I)	2.0	The intactness would be low – the view is now entirely man-made with the concrete columns and walls supporting the elevated track. These structures completely intrude into the view.
Unity (U)	2.5	The unity would be low – the strong horizontal patterns of linear form are reflected in the horizontal lines of the elevated structure.
Proposed Built Alternative Visual Quality (P) ($[V+I+U]/3$)	2.2	

Change in Visual Quality (LRT Alternative)	-0.3
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RESOURCE CHANGE

There would be minor change to visual quality. Change in visual character would have poor compatibility (-2.0) with the existing view since the project would obstruct the view with a large concrete mass that would be much larger scale than the original view. The resulting resource change would be low (-1.2).

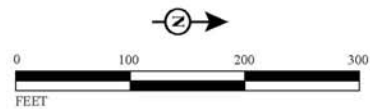
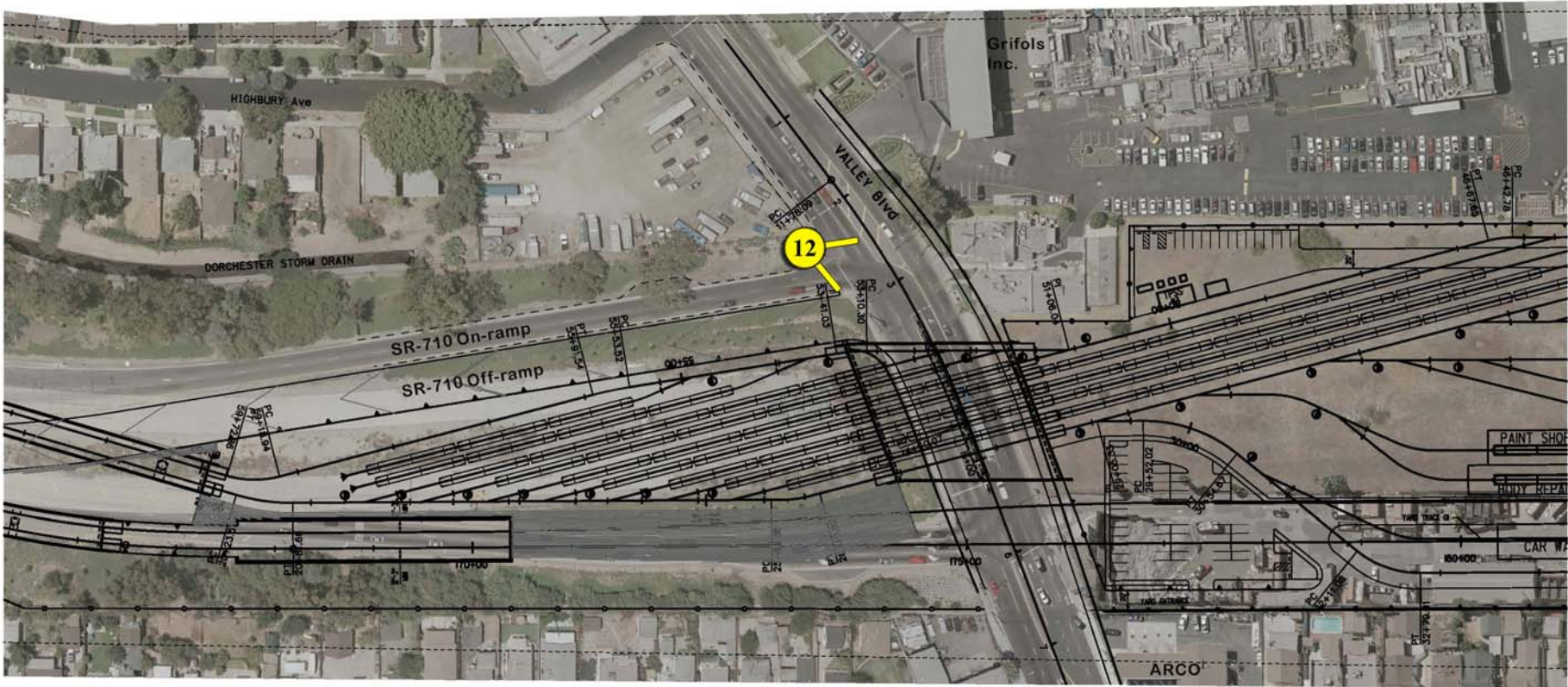
VIEWER RESPONSE

Valley Boulevard is a busy road connecting El Sereno to the west and Alhambra to the east. Viewer groups include commercial pedestrians and motorists. Viewer sensitivity would be moderately low, and viewer exposure would be moderately high. Overall viewer response would be moderate (-4.0).

RESULTING VISUAL IMPACT

Under this alternative, the visual impact in Key View 12-LRT would be moderate (-2.6) due to the installation of the elevated LRT. Vividness and intactness would be reduced because of the introduction of the man-made feature that completely dominates the roadway view on Valley Boulevard, in contrast to the undeveloped grassy slope that currently exists. Unity would be close to the same. The resulting visual quality change would be minor. Visual character would change with poor compatibility to the existing view. Viewer response would be moderate.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
12-LRT	Commercial	-1.2	-4.0	-2.6



LEGEND

- Light Rail Transit (LRT) Alignment
- Walls
- Parking Stalls
- Columns
- Outrigger Bents
- LRT KV Locations

FIGURE 8-29

SR 710 North Study
Key View 12-LRT Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-29 KEY VIEW 12-LRT LOCATION



Existing Condition



Visual Simulation: Light Rail Transit maintenance yard at Valley Blvd.

KEY VIEW 12-LRT

5531 Valley Boulevard
City of Los Angeles, CA 90032

GPS Location:
Latitude = 34° 4'28.66"N
Longitude = 118° 9'42.27"W
Heading =25° NNE

The location of Key View 12-LRT was taken on Valley Boulevard at the entrance of the on-ramp of SR-710 South-bound. The view looks northeast towards the proposed Light Rail Transit maintenance yard.

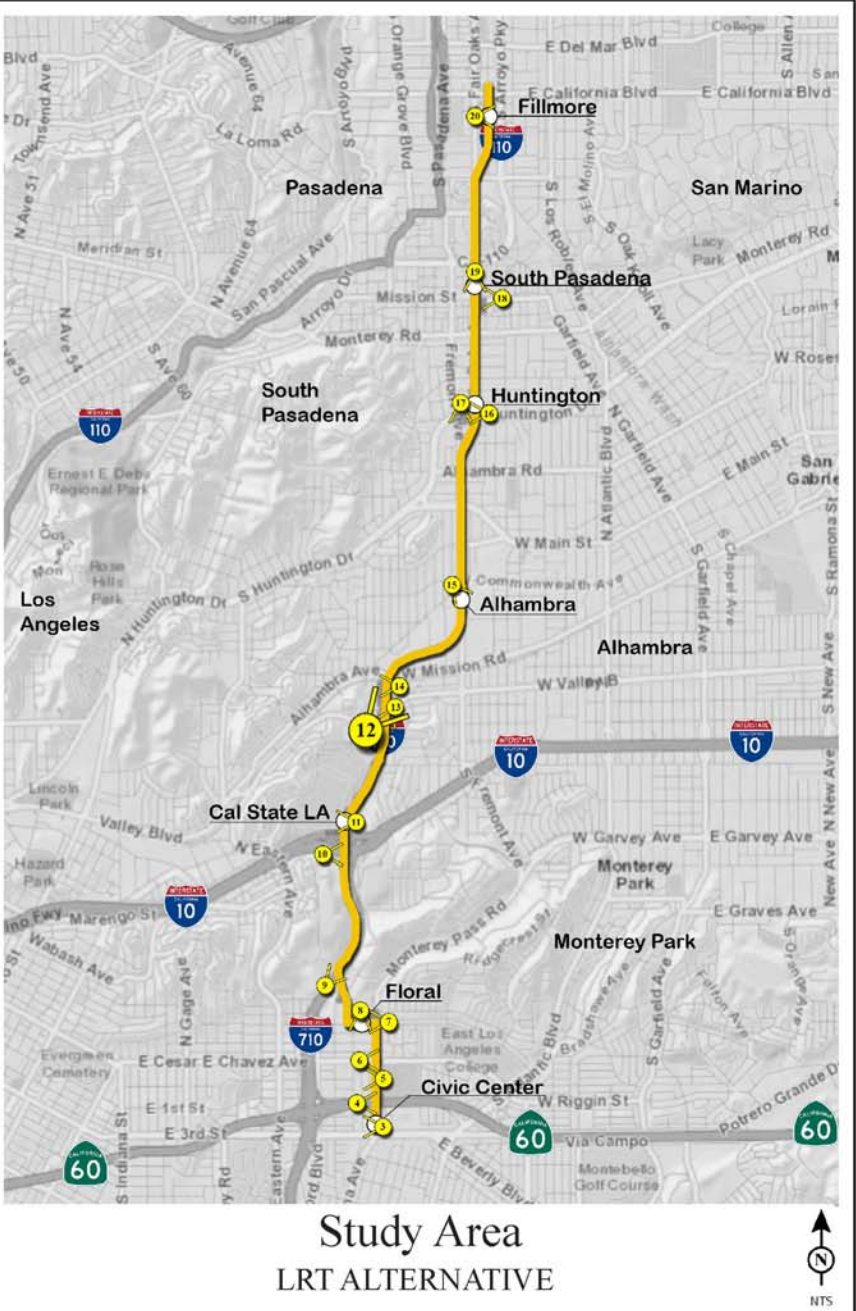


FIGURE 8-30



SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-30 KEY VIEW 12-LRT DESCRIPTION

Key View 13-LRT (Figures 8-31 and 8-32)

ORIENTATION

As shown in Figure 8-31, this view of Valley Boulevard is looking southwest from the end of the off-ramp of the proposed Project. The existing setting and visual simulation for Key View 13-LRT are shown in Figure 8-32.

EXISTING VISUAL QUALITY

The location of Key View 13-LRT is on Valley Boulevard at the end of the off-ramp of the proposed Project looking southwest. The berm on the south side of Valley Boulevard is landscaped with groundcovers, shrubs, and trees. The existing visual quality of this view is moderate (4.2).

	Rating	Comments
Vividness (V)	4.5	The existing vividness is moderate – the hill between the I-710 freeway and the on-ramp/off ramps is nicely landscaped and creates a viewable accent focus point.
Intactness (I)	4.0	The existing intactness is moderate – the telephone poles encroach into the view of the landscaped hill.
Unity (U)	4.0	The existing unity is moderate – the vertical lines of the telephone poles conflict with the soft horizontal lines of the view of the landscape hill.
Existing Visual Quality (E) ([V+I+U]/3)	4.2	

PROPOSED PROJECT FEATURES

At this location, the LRT Alternative would be overhead. Support columns would be installed in a new median on Valley Boulevard. A safety railing would be built on top of the elevated track.

CHANGE TO VISUAL QUALITY

Currently, Valley Boulevard is a 4-lane road. Under this alternative, a narrow concrete median would be installed to accommodate concrete columns for the LRT Alternative overhead. The view would be dominated by high retaining walls and the LRT overpass. The change in visual quality resulting from the Build Alternative would be major.

Key View 13-LRT - Visual Quality for LRT Alternative

	Rating	Comments
Vividness (V)	2.5	The vividness would be low – the elevated structure of the LRT completely dominates the view of the roadway and offers little or no focal points for the viewer.
Intactness (I)	2.0	The intactness would be low – the view is now entirely man-made with the concrete columns and walls supporting the elevated track disrupting into the view.
Unity (U)	2.5	The unity would be low – the strong patterns of linear form are reflected in the elevated structure and conflict with the angles of the street lines..
Proposed Built Alternative Visual Quality (P) ($[V+I+U]/3$)	2.3	

Change in Visual Quality (LRT Alternative)	-1.9
---	------

RESOURCE CHANGE

There would be major change to visual quality. Change in visual character would have poor compatibility (-2.0) with the existing view since the project would obstruct the view with a large concrete mass that would be much larger scale than the original view. The resulting resource change would be moderately low (-2.0).

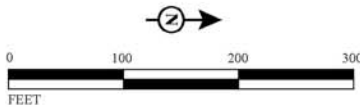
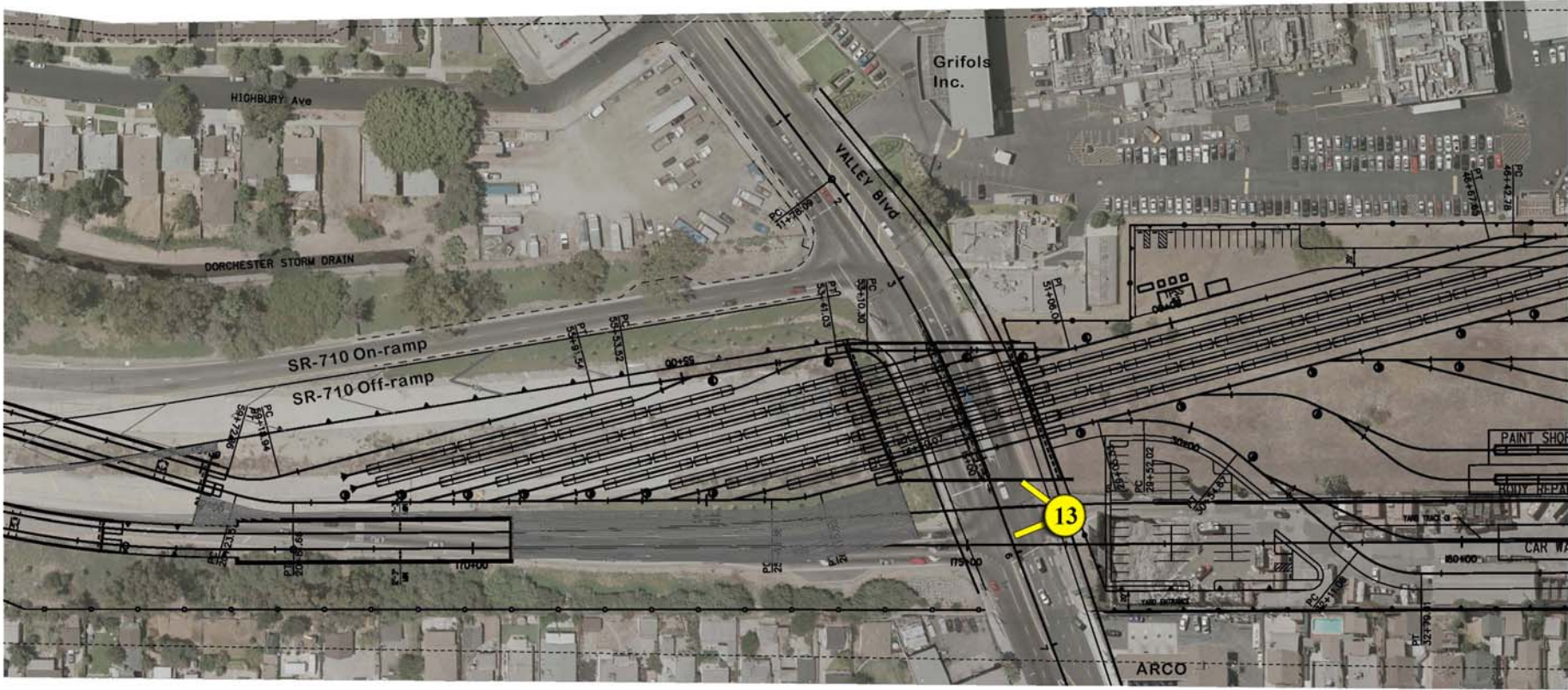
VIEWER RESPONSE

Valley Boulevard is a busy road connecting El Sereno to the west and Alhambra to the east. Viewer groups include commercial pedestrians and motorists. Viewer exposure to the LRT would be moderately high for the alternative due to the number of viewers, duration, and proximity to the elevated light rail line. Viewer sensitivity would be moderately low. The overall viewer response would be moderate (-4.0).

RESULTING VISUAL IMPACT

Under this alternative, the visual impact in Key View 13-LRT due to the installation of the elevated LRT would be moderate (-3.0). Vividness, intactness, and unity would be majorly reduced because of the introduction of the man-made feature that dominates the roadway view on Valley Boulevard, in contrast to the undeveloped grassy slope that currently exists. Resource change would be moderately low, and viewer response would be moderate.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
13-LRT	Commercial	-2.0	-4.0	-3.0



LEGEND

- Light Rail Transit (LRT) Alignment
- Walls
- Parking Stalls

- Columns
- Outrigger Bents
- LRT KV Locations

FIGURE 8-31

SR 710 North Study
Key View 13-LRT Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-31 KEY VIEW 13-LRT LOCATION



Existing Condition



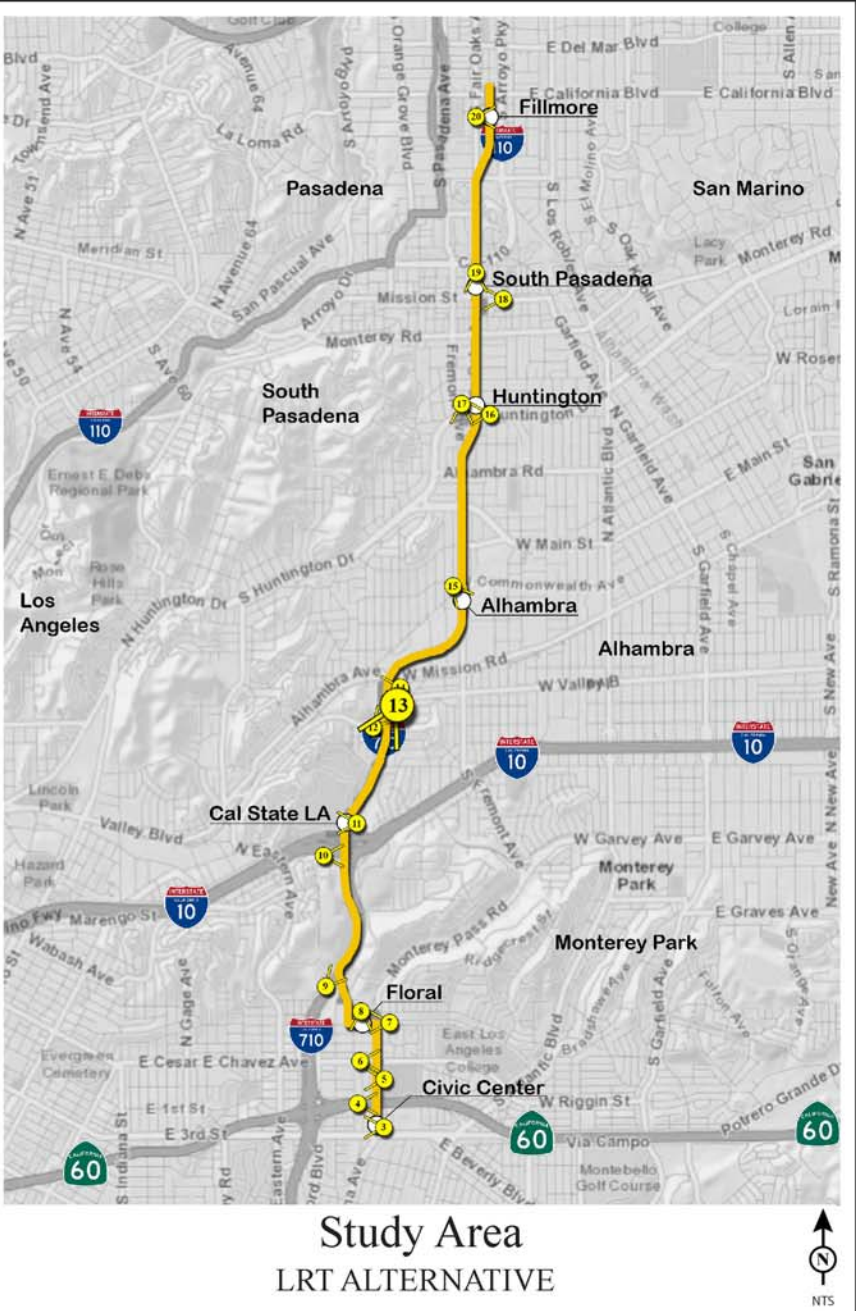
Visual Simulation: Light Rail Transit maintenance yard at Valley Blvd.

KEY VIEW 13-LRT

3299 W. Valley Boulevard
City of Alhambra, CA 91803

GPS Location:
Latitude = 34° 4'31.14"N
Longitude = 118° 9'38.83"W
Heading = 188° S

The location of Key View 13-LRT was taken on Valley Boulevard at the end of the off-ramp of SR-710 Northbound. The view looks south towards the proposed Light Rail Transit maintenance yard.



SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-32 KEY VIEW 13-LRT DESCRIPTION

SR 710 North Study
Key View 13-LRT Description
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

Key View 14-LRT (Figures 8-33 and 8-34)

ORIENTATION

As shown in Figure 8-33, the historic Shorb Street neighborhood in Alhambra is west of S Fremont Avenue and between W Valley Boulevard and W Mission Road. The existing setting and visual simulation for Key View 14-LRT are shown in Figure 8-34.

EXISTING VISUAL QUALITY

The location of Key View 14-LRT takes place on Front Street looking west from the edge of the neighborhood. The residential street terminates at a chain-link fence with a terminal view of the back building of the industrial plant. The existing visual quality of this view is moderately low (3.3).

	Rating	Comments
Vividness (V)	3.5	The existing vividness is moderately low – the chain-link fence and non-descript building as a focal point does not add to the residential tree-lined street character.
Intactness (I)	3.5	The existing intactness is moderately low – the fencing, telephone wires, and commercial building in the background detract from the quiet residential neighborhood.
Unity (U)	3.0	The existing unity is moderately low – the non-descript building in the background does not match the architecture of the residential street. Other visual masses of space do not blend to create uniformity in the view.
Existing Visual Quality (E) ([V+I+U]/3)	3.3	

PROPOSED PROJECT FEATURES

At this location, the LRT Alternative would not be visible. It enters a tunnel just north of W. Valley Boulevard. Above the LRT, this linear parcel would become a maintenance area. High screen walls would be built to screen it from the neighborhood.

CHANGE TO VISUAL QUALITY

Currently, the Shorb neighborhood backs up against the undeveloped SR 710 corridor. Under the alternative, the light rail line would be underground and a maintenance area built above it. The Shorb Street neighborhood homes along this parcel would face a new screen wall along this maintenance area. This wall will effectively screen anything to the west. The change in visual quality resulting from the Project would be minor.

Key View 14-LRT - Visual Quality for LRT Alternative

	Rating	Comments
Vividness (V)	3.0	The vividness would be moderately low – the tall screen wall is a strong feature at the terminal end of Front Street and detracts from the details of the building.
Intactness (I)	3.0	The intactness is moderately low – the tall screen wall ends the view for the neighborhood street with both horizontal and vertical man-made elements visible.
Unity (U)	3.0	The unity is moderately low – the linear form of the screen wall forms a strong horizontal pattern across the end of the view.
Proposed Built Alternative Visual Quality (P) ($[V+I+U]/3$)	3.0	

Change in Visual Quality (LRT Alternative)	-0.3
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RESOURCE CHANGE

There would be minor change to visual quality. Change in visual character would have moderately good compatibility (1.0) with the existing view since the project would construct a noise barrier that would simplify the view by blocking the maintenance yard in the background. The resulting resource change would be low (0.4).

VIEWER RESPONSE

The light rail line would be underground in this location, but a maintenance area would be constructed in this corridor. Viewers include residential motorists and pedestrians traveling Front Street and residents living on the west side of Westmont Drive and looking out over their backyards. Viewer sensitivity would be high, and viewer exposure would be moderately high. Overall viewer response would be high.

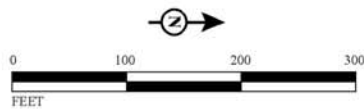
RESULTING VISUAL IMPACT

Under the alternative, the visual impact caused by the view of the barrier wall for the maintenance area behind the houses along the west side of Westmont Drive in Key View 14-LRT would be moderate (2.9). The view would result in less vividness and intactness. Overall resource change would be low. Viewer response would be high.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
14-LRT	Residential	0.4	5.5	2.9



FIGURE 8-33



- LEGEND
- Light Rail Transit (LRT) Alignment
 - Walls
 - Parking Stalls
 - Columns
 - Outrigger Bents
 - LRT KV Locations

SR 710 North Study
Key View 14-LRT Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-33 KEY VIEW 14-LRT LOCATION



Existing Condition



Visual Simulation: Light Rail Transit maintenance area.

KEY VIEW 14-LRT

3201 Front Street
City of Alhambra, CA 91803

GPS Location:
Latitude = 34° 4'39".99"N
Longitude = 118° 9'36.17"W
Heading = 264° W

The location of Key View 14-LRT was taken from the intersection of Front Street and Westmont Drive. The view looks west towards the proposed Light Rail Transit maintenance yard.

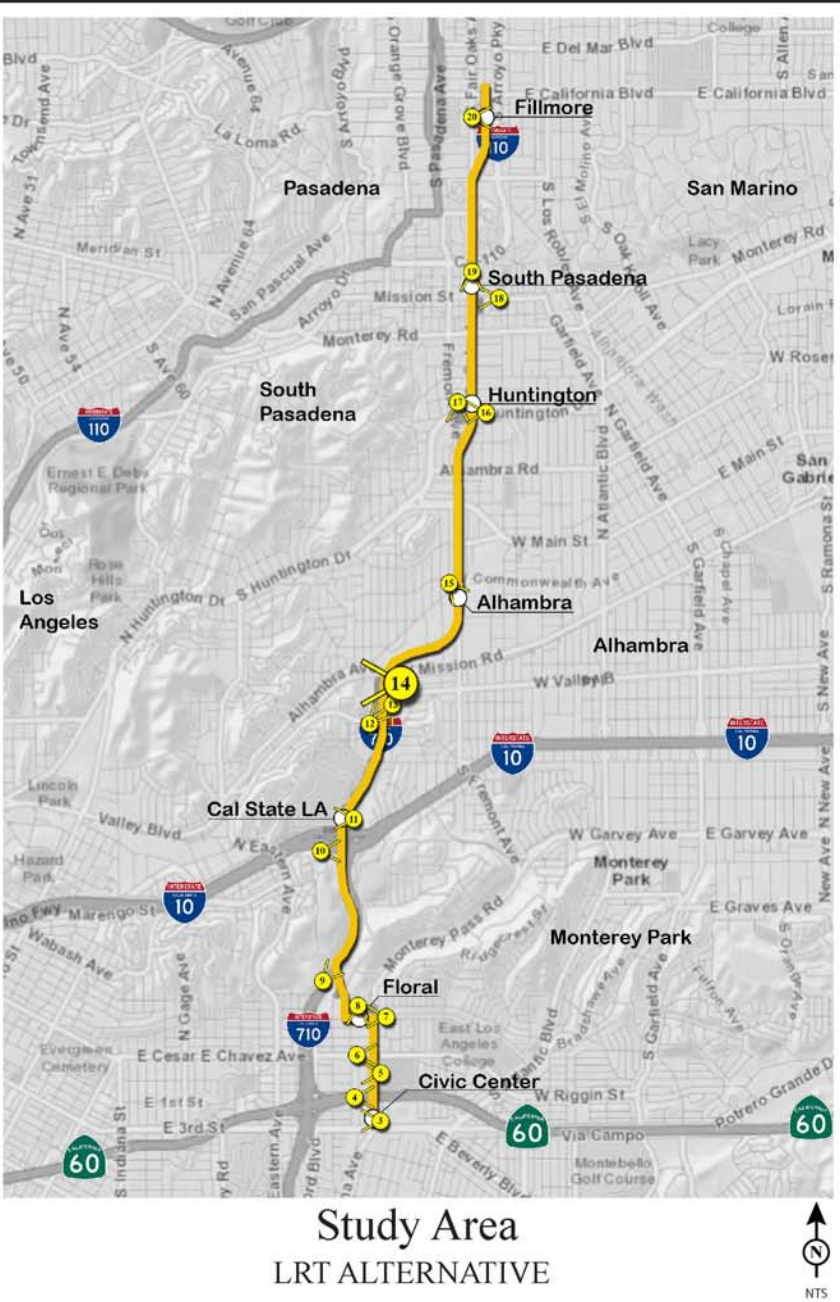


FIGURE 8-34



SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-34 KEY VIEW 14-LRT DESCRIPTION

SR 710 North Study
Key View 14-LRT Description
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

Key View 15-LRT (Figures 8-35 and 8-36)

ORIENTATION

As shown in Figure 8-35, Fremont Plaza is located along S Fremont Avenue in Alhambra. The existing setting and visual simulation for Key View 15-LRT are shown in Figure 8-36.

EXISTING VISUAL QUALITY

The location of Key View 15-LRT takes place along S Fremont Avenue looking at the Fremont Plaza shopping center. The shopping center is well-kept with the architecture having clean simple lines and neutral colors. Along S Fremont Avenue, low shrubs and short street trees are between the sidewalk and the parking lot. The existing quality of this view is moderately low (3.5).

	Rating	Comments
Vividness (V)	3.5	The existing vividness is moderately low – while the shopping center is well-kept, the view is still a parking lot in front of big box retail stores. All of these elements are mixed in a way that they create no focal point for the viewer
Intactness (I)	3.5	The existing intactness is moderately low – the entire site is impervious paving except for a few landscape islands. Interrupting this context are traffic signal structures and automobiles during business hours.
Unity (U)	3.5	The existing unity is moderately low – standard big box architecture, nothing particularly used in a regional context. These major features do not contribute uniformity for the viewer.
Existing Visual Quality (E) ($[V+I+U]/3$)	3.5	

PROPOSED PROJECT FEATURES

At this location, the light rail line would be underground. Only commuter stair structures leading down into the Alhambra Station would be visible along the sidewalk. In addition, a commuter parking lot would be constructed within a portion of the Fremont Plaza shopping center.

CHANGE TO VISUAL QUALITY

Currently, this portion of S Fremont Avenue is a 4-lane road with a center turn lane. Under this alternative, a portion of the Fremont Plaza parking lot would be re-configured to support a commuter parking for the Alhambra Station. The big-box retail store on the corner of S Fremont Avenue and Concord Avenue would also need to be removed for this commuter parking lot. Commuter stairway entrances would also be added, but all of these minor changes would not affect the visual quality rating.

Key View 15-LRT - Visual Quality for LRT Alternative

	Rating	Comments
Vividness (V)	3.5	The vividness would be moderately low – with the removal of the retail store, the parking lot next to S. Fremont Avenue would be extended. Additional visual character will be added by means of architectural treatments to the new structures along the street.
Intactness (I)	3.5	The intactness would be moderately low – the blank wall of the pet store would be removed for a parking lot. This will do little to change the intactness of the view.
Unity (U)	3.5	The unity would be moderately low – the entire frontage of this parcel would be a parking lot. Architectural features for the new structures along the street will help bring together the visual weights of the street in the foreground and the sky in the upper portion of the view.
Proposed Built Alternative Visual Quality (P) ([V+I+U]/3)	3.5	

Change in Visual Quality (LRT Alternative)	0.0
---	-----

RESOURCE CHANGE

There would be no change to visual quality. Change in visual character would have moderately good compatibility (0.5) with the existing view. The removal of a building will simplify the view, and the new structures fit the scale of the existing view. The resulting resource change would be low (0.3).

VIEWER RESPONSE

S Fremont Avenue is a busy commercial corridor connecting Monterey Park to the south and South Pasadena to the north. Viewers would include commercial pedestrians and motorists. Viewer sensitivity to the LRT would be moderately low, and viewer exposure would be moderately high. Overall viewer response would be moderate.

RESULTING VISUAL IMPACT

Under the alternative, the visual impact in Key View 15-LRT would be moderately low (2.1) due to low resource change with only the addition of the commuter stair entrances. The view would result in low visual impact for vividness, intactness, and unity. The Build Alternative would not change the visual quality. Viewer response to the LRT would be moderate, however, the resulting impact would be moderately low for the LRT Alternative due to few visual resource changes from the light rail being underground.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
15-LRT	Commercial	0.3	4.0	2.1

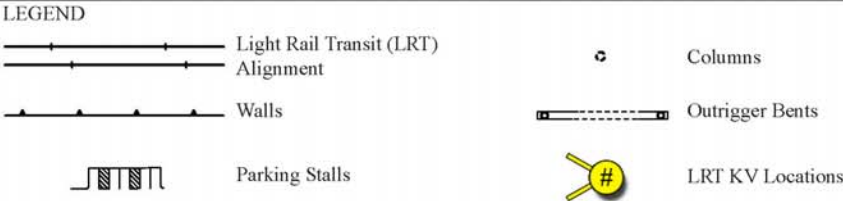
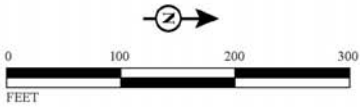
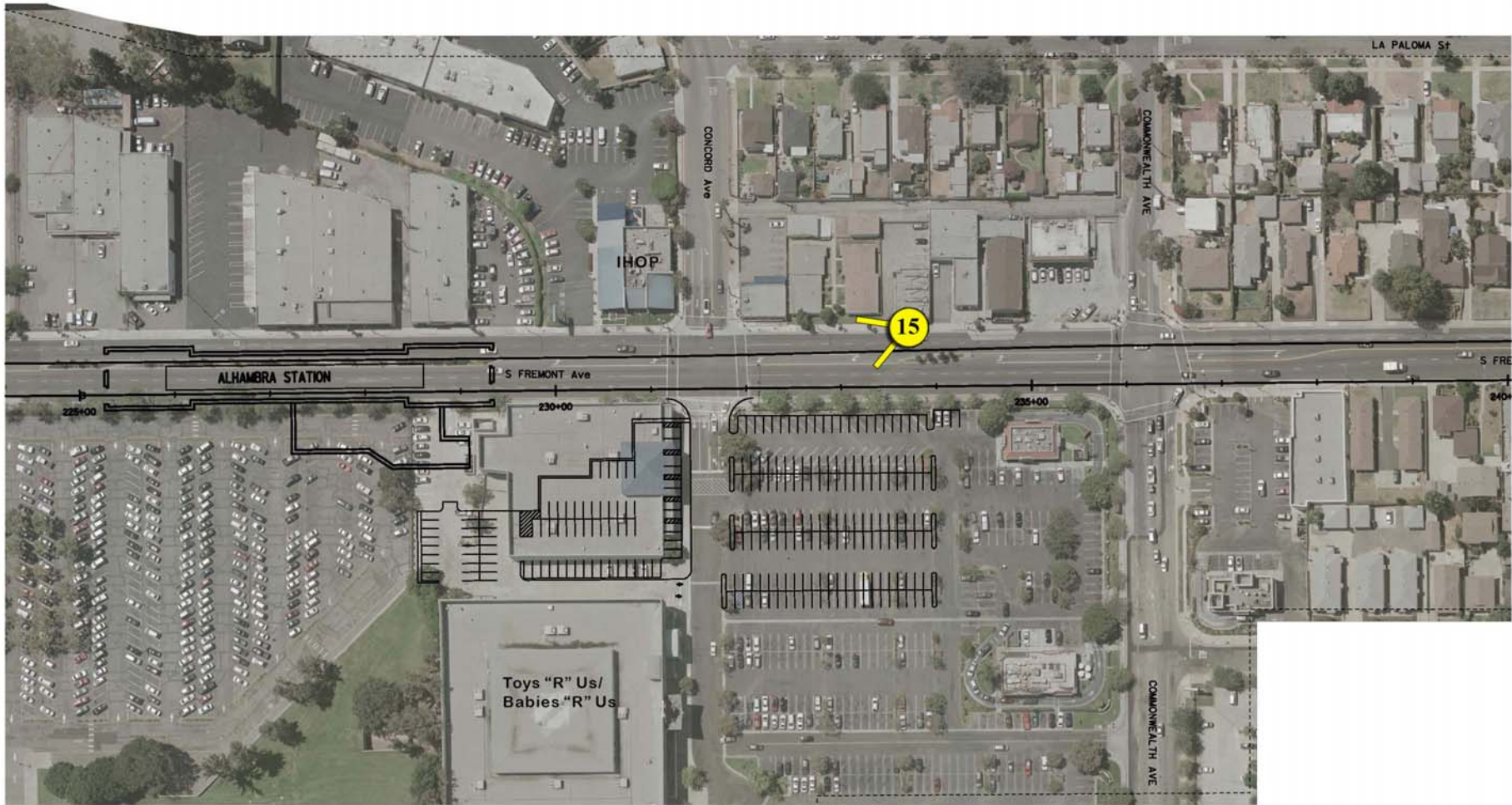


FIGURE 8-35

SR 710 North Study
Key View 15-LRT Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-35 KEY VIEW 15-LRT LOCATION



Existing Condition



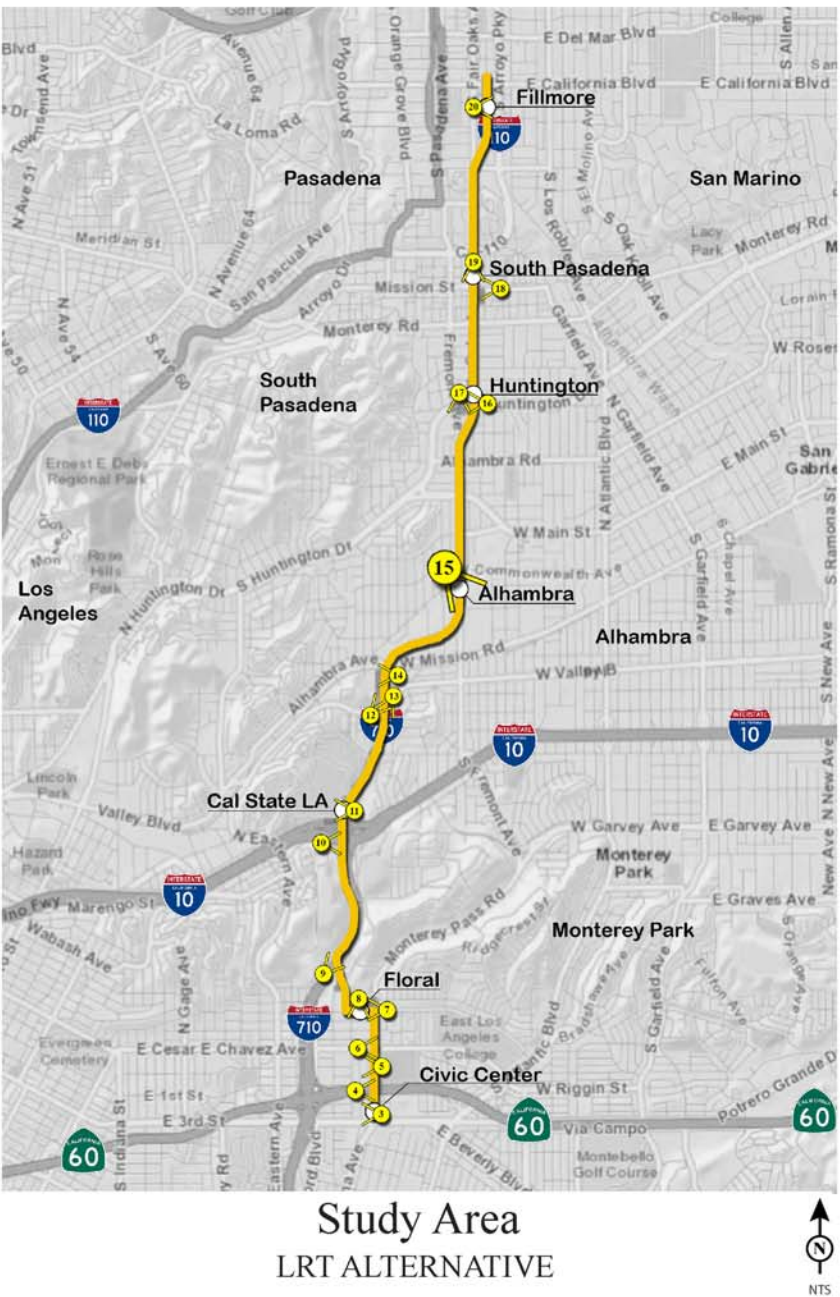
Visual Simulation: Proposed Fremont Station.

KEY VIEW 15-LRT

619 S. Fremont Avenue
City of Alhambra, CA 91803

GPS Location:
Latitude = 34° 5'13.59"N
Longitude = 118° 9'7.43"W
Heading = 155° SSE

The location of Key View 15-LRT was taken from the sidewalk in front of Duncan Printing Company on S. Fremont Avenue. The view looks southeast towards the proposed Fremont Station.



SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-36 KEY VIEW 15-LRT DESCRIPTION

FIGURE 8-36

SR 710 North Study
Key View 15-LRT Description

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

Key View 16-LRT (Figures 8-37 and 8-38)

ORIENTATION

As shown in Figure 8-37, the corner of Huntington Drive and Fair Oaks Avenue is located in South Pasadena. The existing setting and visual simulation for Key View 16-LRT are shown in Figure 8-38.

EXISTING VISUAL QUALITY

Key View 16-LRT is located along Huntington Drive looking west. Large Camphor trees on either side of the street provide a filtered view of the commercial streetscape on both sides of Huntington Drive. The existing visual quality of this view is moderate (4.5).

	Rating	Comments
Vividness (V)	4.5	The existing vividness is moderate – the large trees in the median and along both sides of Huntington Drive frame the street and provide a memorable perspective down the street to a horizon point.
Intactness (I)	4.5	The existing intactness is moderate – everything fits within the context of the streetscape view with very little intrusion into the view by man-made elements. The flag pole and light fixture on the right side of the view are small in scale relative to the larger trees and street paving.
Unity (U)	4.5	The existing unity is moderate – everything is in scale. The mass of the building on the left is screened by the large shade trees. Additionally the mass of the street paving and the mass of the sky above are balanced to create an overall uniform view.
Existing Visual Quality (E) ($[V+I+U]/3$)	4.5	

PROPOSED PROJECT FEATURES

At this location, the light rail line would be underground. Only commuter stair structures leading down into Huntington Station and signage for the entrances and parking lot would be visible along the sidewalk. In addition, a commuter parking lot would be constructed on the south side of Huntington Drive.

CHANGE TO VISUAL QUALITY

Currently, this portion of Huntington Drive is a 4-lane road with a landscaped median of large Camphor trees. Under this alternative, a portion of the commercial block south of Huntington drive would be demolished to construct commuter parking for the Huntington Station. The building's removal would allow more sky to be visible above the parking lot. There would be no visual quality change from the Build Alternative.

Key View 16-LRT - Visual Quality for LRT Alternative

	Rating	Comments
Vividness (V)	4.5	The vividness would be moderate – the large Camphor trees in the median and along the sides of the Huntington Drive would still dominate the view and provide the accent points for the viewer.
Intactness (I)	4.5	The intactness would be moderate – very little would change. Stair entrances leading down into the Huntington Station would be added along the street, but the large office building on the left would be replaced with a surface parking lot.
Unity (U)	4.5	The unity would be moderate – the office building on the left would be removed, lowering the scale of the streetscape to maintain a balance between the left side of the view and the right side of the view.
Proposed Built Alternative Visual Quality (P) ($[V+I+U]/3$)	4.5	
Change in Visual Quality (LRT Alternative)	0.0	

RESOURCE CHANGE

There would be no change to visual quality or character compatibility (0.0) with the existing view. There would be no noticeable change (0.0) in visual resources.

VIEWER RESPONSE

Huntington Drive is a busy commercial corridor connecting Los Angeles to the west and San Marino to the east. Viewer groups include commercial and residential pedestrians and motorists. Average viewer exposure and sensitivity to the LRT alternative would be moderately high to high due to the many businesses, nearby residences and the iconic nature of Huntington Drive. Overall viewer response would be high (5.5).

RESULTING VISUAL IMPACT

Under the alternative, the visual impact in Key View 16-LRT would be moderate (2.8) due to high viewer response. The view would result in no change for vividness, intactness, and unity. The Build Alternative would not change the visual quality or the visual character.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
16-LRT	Commercial, Residential	0.0	5.5	2.8

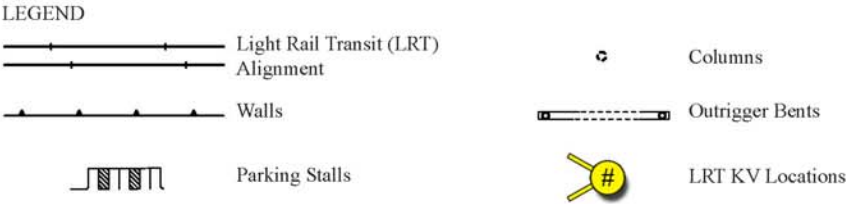
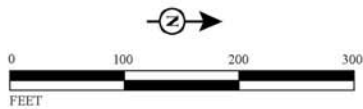
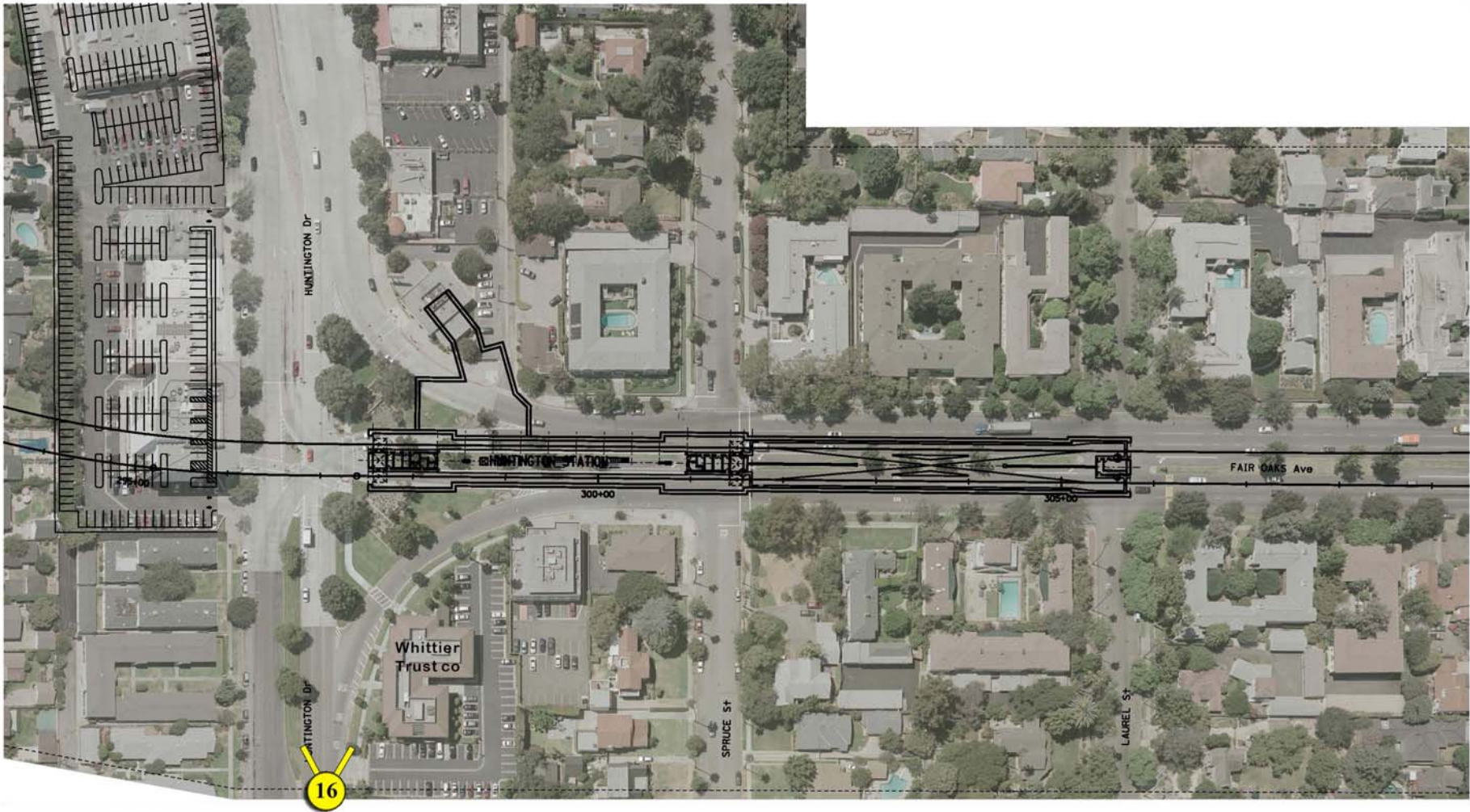


FIGURE 8-37

SR 710 North Study
Key View 16-LRT Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-37 KEY VIEW 16-LRT LOCATION



Existing Condition



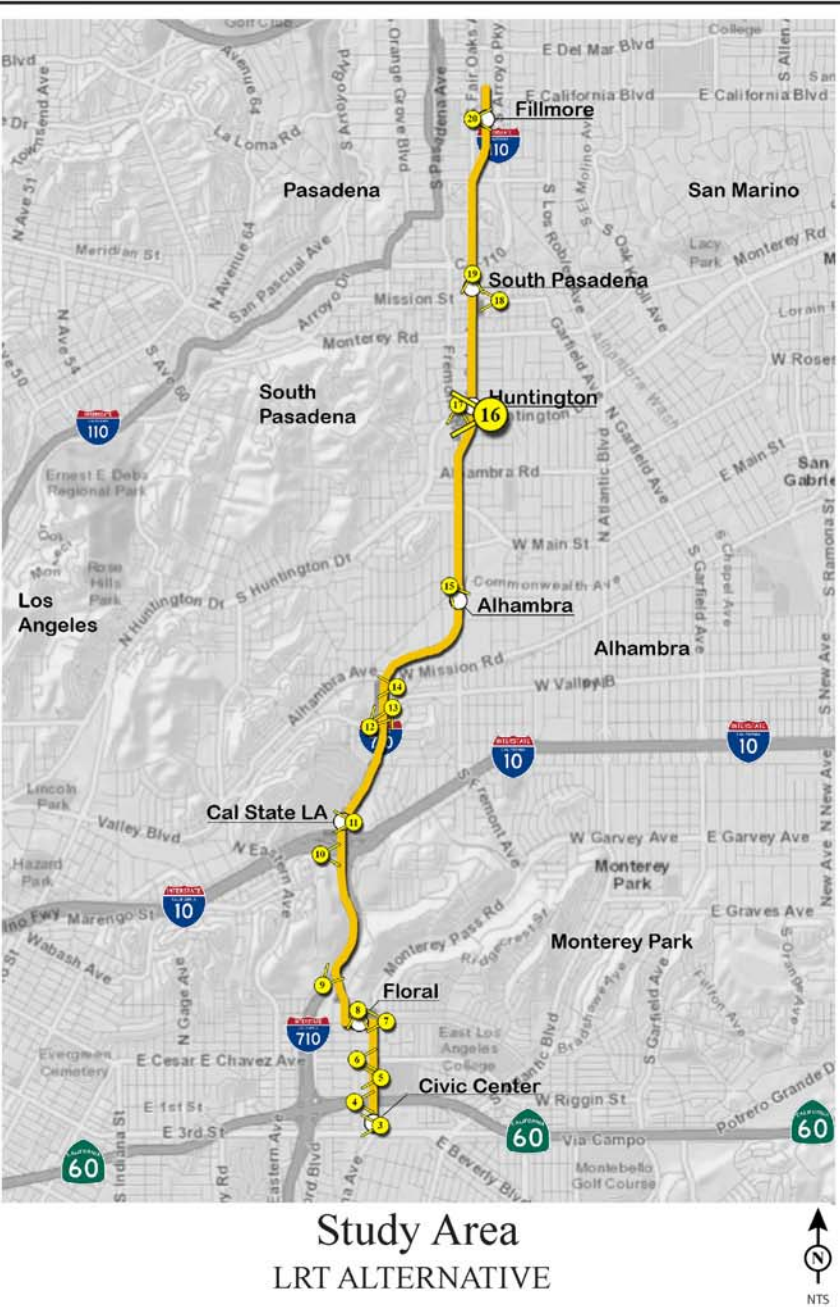
Visual Simulation: Proposed Huntington Station.

KEY VIEW 16-LRT

1600 Huntington Drive
City of South Pasadena, CA 91030

GPS Location:
Latitude = 34° 6'15.23"N
Longitude = 118° 8'57.20"W
Heading = 269° W

The location of the Key View 16-LRT was taken place along Huntington Drive. The view looks west towards the proposed Huntington Station.



LEGEND

Light Rail Transit (LRT) Alternative

LRT Stations

LRT Key View Locations

Freeways

Major Roads

Local Roads

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-38 KEY VIEW 16-LRT DESCRIPTION

FIGURE 8-38

SR 710 North Study
Key View 16-LRT Description
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

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Key View 17-LRT (Figures 8-39 and 8-40)

ORIENTATION

As shown in Figure 8-39, this commercial block is on Huntington Drive in South Pasadena. The existing setting and visual simulation for Key View 17-LRT are shown in Figure 8-40.

EXISTING VISUAL QUALITY

The location of Key View 17-LRT is along the southern side of Huntington Drive between S Fremont Avenue and Fair Oaks Avenue. Clusters of street trees including Carrotwood and Fern Pine provide a filtered view of this commercial block. The existing visual quality of this view is low (2.8).

	Rating	Comments
Vividness (V)	2.5	The existing vividness is low – the parking lot is exposed to the street with no screening other than street trees. A mix of various visual elements combine to create an unfocused view.
Intactness (I)	3.0	The existing intactness is moderately low – utility, tenant signage, and a lack of landscape screening diminish the view.
Unity (U)	3.0	The existing unity is moderately low – the expanse of rocks in center median, impervious paving, and cars do little to complement the adjacent buildings. There is no balance and uniformity between the upper and lower half of the view. And there is no balance between the right and left sides of the view.
Existing Visual Quality (E) [(V+I+U)/3]	2.8	

PROPOSED PROJECT FEATURES

At this location, the light rail line would be underground. Only commuter stair structures leading down into the Huntington Station would be visible along the sidewalk. In addition, a commuter parking lot would be constructed on the south side of Huntington Drive. The demolition of the commercial buildings would allow more sky in the background and a landscape strip would screen the parking and give a unified appearance to the streetscape. Signage would be minimized to only signage for commuter parking.

CHANGE TO VISUAL QUALITY

Currently, this portion of Huntington Drive is a 4-lane road with a median. Under this alternative, a portion of the commercial block south of Huntington Drive would be demolished to construct a commuter parking lot for the Huntington Station. The visual quality change resulting from the Build Alternative would be minor.

Key View 17-LRT - Visual Quality for LRT Alternative

	Rating	Comments
Vividness (V)	3.5	The vividness would be moderate – The addition of the new parking garage creates a more memorable than the existing parking lot.
Intactness (I)	3.5	The intactness would be moderate– The view is relatively free from atypical visual intrusions.
Unity (U)	3.5	The unity would be moderate – the repetitive levels of parking create a harmonious pattern.
Proposed Built Alternative Visual Quality (P) ($(V+I+U)/3$)	3.5	

Change in Visual Quality (LRT Alternative)	+0.7
---	------

RESOURCE CHANGE

There would be medium change (0.7) to visual quality with the replacement of the existing surface parking lot with a multi-level parking structure. Change in visual character would have poor compatibility (-1.5) with the existing view. Most of the landscaping would be removed in the view, so the color and texture of the view would change moderately. The resulting resource change would be low (-0.7).

VIEWER RESPONSE

Huntington Drive is a busy commercial corridor connecting Los Angeles to the west and San Marino to the east. Viewers groups include commercial pedestrians and motorists. Sensitivity to the LRT Alternative would be moderately low for the alternative due to people being distracted with shopping and not necessarily valuing the existing visual aesthetics. Exposure to the LRT alternative would be moderately high due to the number and closeness of viewers as well as the average duration of viewing the area. Overall viewer response would be moderate (-4.0).

RESULTING VISUAL IMPACT

Under this alternative, the visual impact in Key View 17-LRT would be moderately low (-2.4). Viewer response in this commercial area would be moderate, but there would be low visual resource change with the construction of the multi-level parking structure for the Huntington Station parking lot. With the repetitive and balanced façade of the parking structure, the view would result in improvements for vividness, intactness, and unity. However, the Built Alternative character is poorly compatible with the existing character, so the overall impact would be negative.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
17-LRT	Commercial	-0.7	-4.0	-2.4

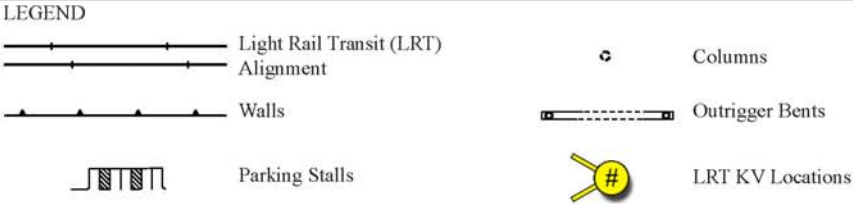
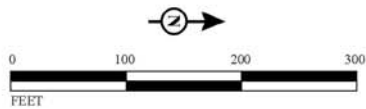
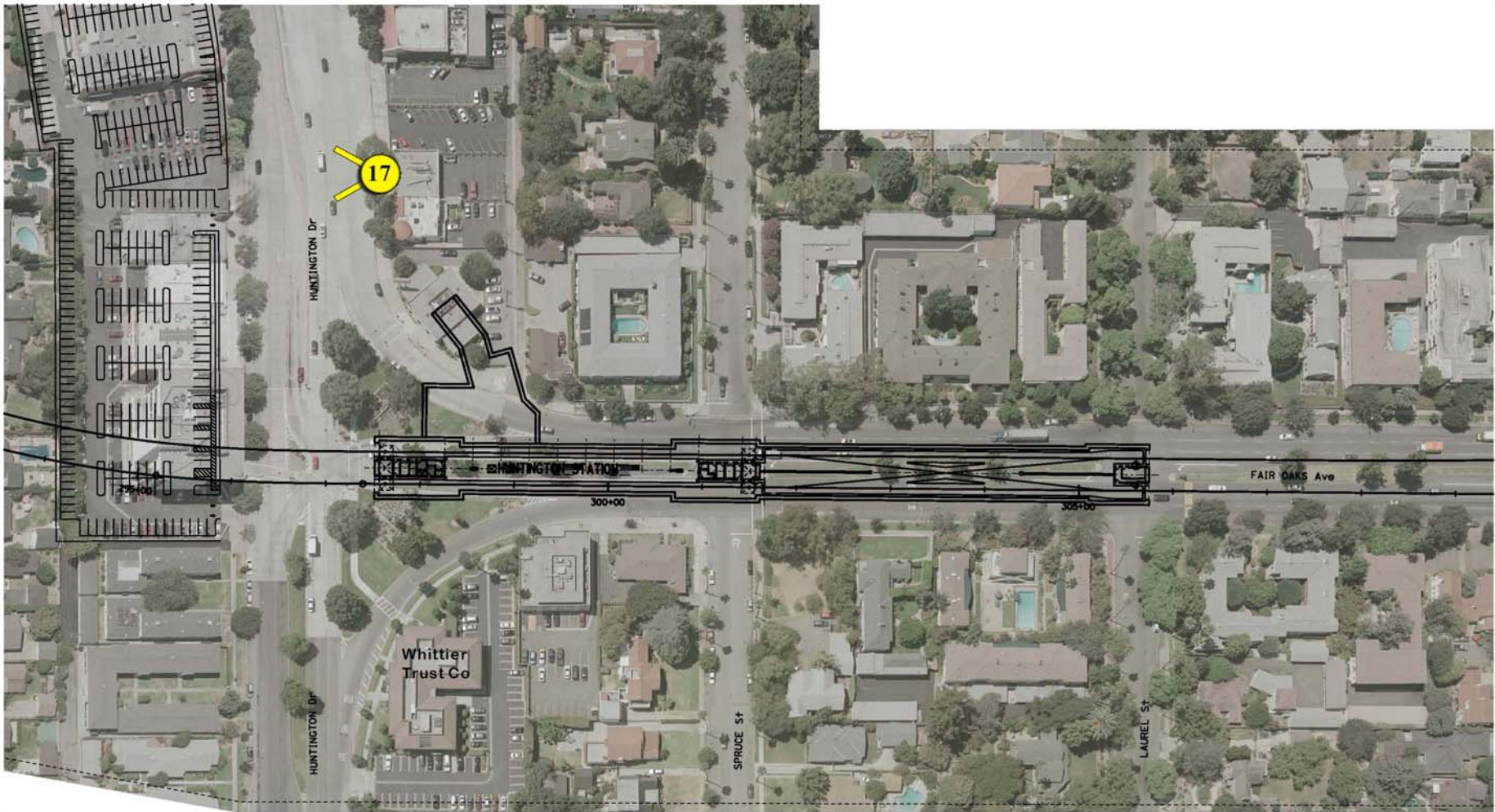


FIGURE 8-39

SR 710 North Study
Key View 17-LRT Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-39 KEY VIEW 17-LRT LOCATION



Existing Condition



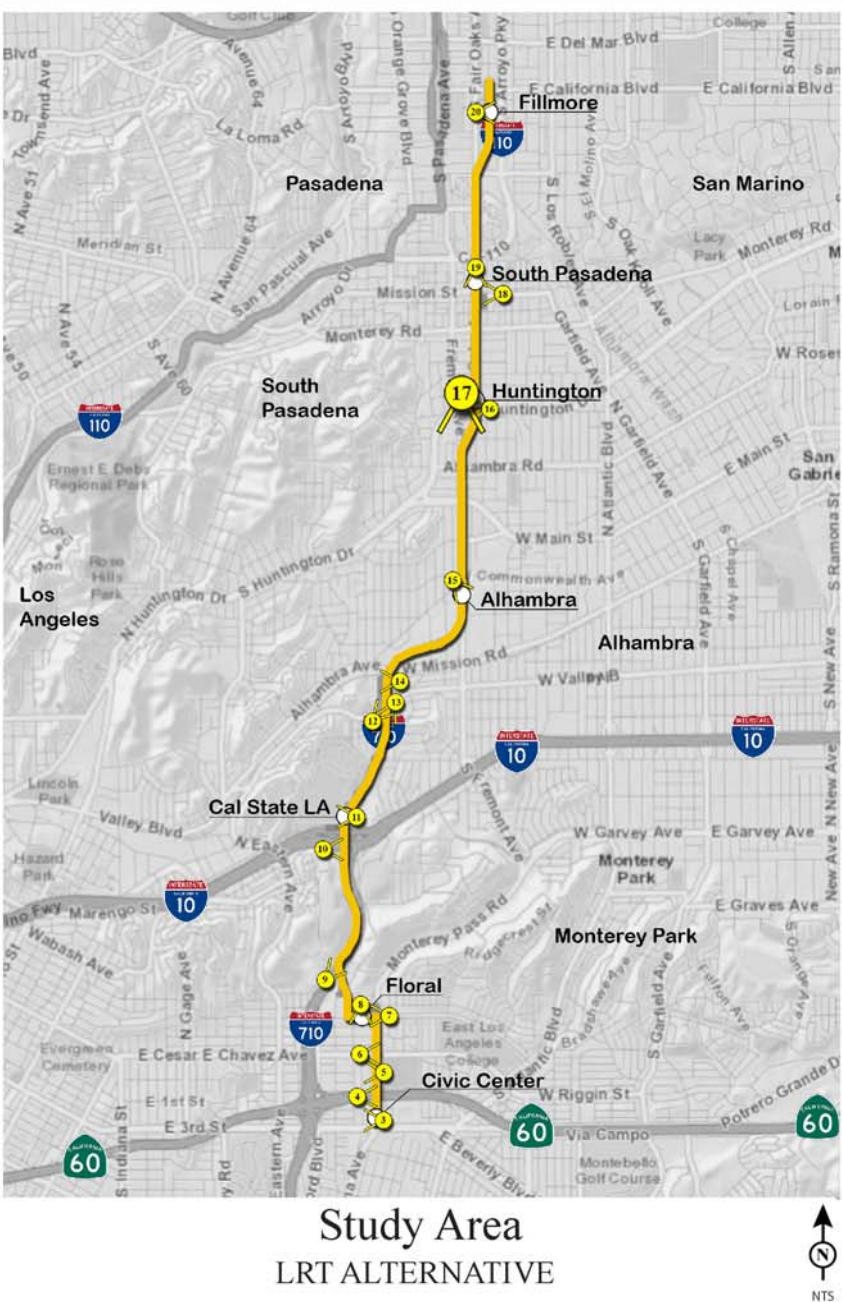
Visual Simulation: Proposed Huntington Station Parking Structure.

KEY VIEW 17-LRT

1502 Huntington Drive
City of South Pasadena, CA 91030

GPS Location:
Latitude = 34° 6' 15.82"N
Longitude = 118° 9' 5.28"W
Heading = 179° S

The location of the Key View 17-LRT was taken from the sidewalk in front of Gifted Hands Therapeutic store on Huntington Drive. The view looks south at the proposed Huntington Station parking structure.



SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-40 KEY VIEW 17-LRT DESCRIPTION

FIGURE 8-40

SR 710 North Study
Key View 17-LRT Description
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

Key View 18-LRT (Figures 8-41 and 8-42)

ORIENTATION

As shown in Figure 8-41, Mission Street is located in South Pasadena. The existing setting and visual simulation for Key View 18-LRT are shown in Figure 8-42.

EXISTING VISUAL QUALITY

This location of Key View 18-LRT is on Mission Street a block east of Fair Oaks Avenue. This area is bounded by El Centro on the south, Brent Avenue on the east, Mission Street on the north, and Fair Oaks Avenue on the west. To the left is the parking lot behind a small retail center. Behind this view is a residential neighborhood. With street trees of Crape Myrtles, the existing visual quality of this view is moderate (4.0).

	Rating	Comments
Vividness (V)	4.0	The existing vividness is moderate – a brick screen wall in front of a surface parking lot and single-story commercial buildings are seen as you enter this commercial zone. There is nothing along the street or behind the trees on the left side of the street to create memorableness.
Intactness (I)	4.0	The existing intactness is moderate – low scale buildings match the trees in the streetscape with very little intrusion into the view with the minor exception of the light fixture in the middle.
Unity (U)	4.0	The existing unity is moderate – architecture and street plantings are in harmony with each other to create a balanced view from both vertical and horizontal perspectives.
Existing Visual Quality (E) ([V+I+U]/3)	4.0	

PROPOSED PROJECT FEATURES

At this location, the light rail line would be underground. A commuter parking lot would be constructed on the site of the retail shopping center and parking lot. Stair structures with associated signage leading down into Huntington Station would be visible.

CHANGE TO VISUAL QUALITY

Currently, this portion of Mission Street transitions from residential single-family homes behind the viewer to commercial businesses looking forward. Under this alternative, the commercial buildings to the left would be demolished and the existing parking lot would be re-configured to construct a surface parking lot that would serve the South Pasadena station. The visual quality would not change.

Key View 18-LRT - Visual Quality for LRT Alternative

	Rating	Comments
Vividness (V)	4.0	The vividness would remain moderate – virtually unchanged except that the retail buildings behind the trees would be removed. Additional visual interest will take the form of architectural designs for the station area.
Intactness (I)	4.0	The intactness would be moderate – the stairway structures leading down to the South Pasadena Station would be visible on the streetscape, but no other changes would impact this characteristic.
Unity (U)	4.0	The unity would be moderate – the streetscape plantings would maintain a consistent screen down Mission Street. This would help maintain the balance of the street pavement and the visual mass of the sky.
Proposed Built Alternative Visual Quality (P) ([V+I+U]/3)	4.0	

Change in Visual Quality (LRT Alternative)	0.0
---	-----

RESOURCE CHANGE

There would be no change to visual quality. Change in visual character would have moderately good compatibility (0.5) with the existing view. The removal of the existing wall around the parking lot would open the view. The replacement of one parking lot with another creates little change to the visual character. The resulting resource change would be low (0.3).

VIEWER RESPONSE

Fair Oaks Avenue is a busy commercial corridor connecting Huntington Drive in South Pasadena to the south and Pasadena to the north. Viewers include commercial and residential pedestrians and motorists. Sensitivity and exposure to the LRT Alternative is likely to be moderately high to high for the alternative due the values and awareness of the local residents and consumers. Overall viewer response would be high (5.5).

RESULTING VISUAL IMPACT

Under the alternative, the visual impact in Key View 18-LRT would be moderate (2.9). Visual resources would change only by a low amount with only the retail parking lot being replaced with the South Pasadena station commuter lot. However, in this mixed commercial and residential area, viewer response would be high.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
18-LRT	Commercial, Residential	0.3	5.5	2.9

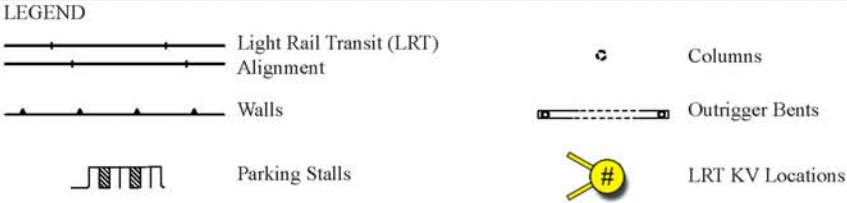
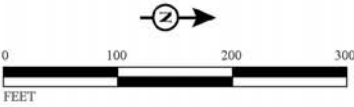
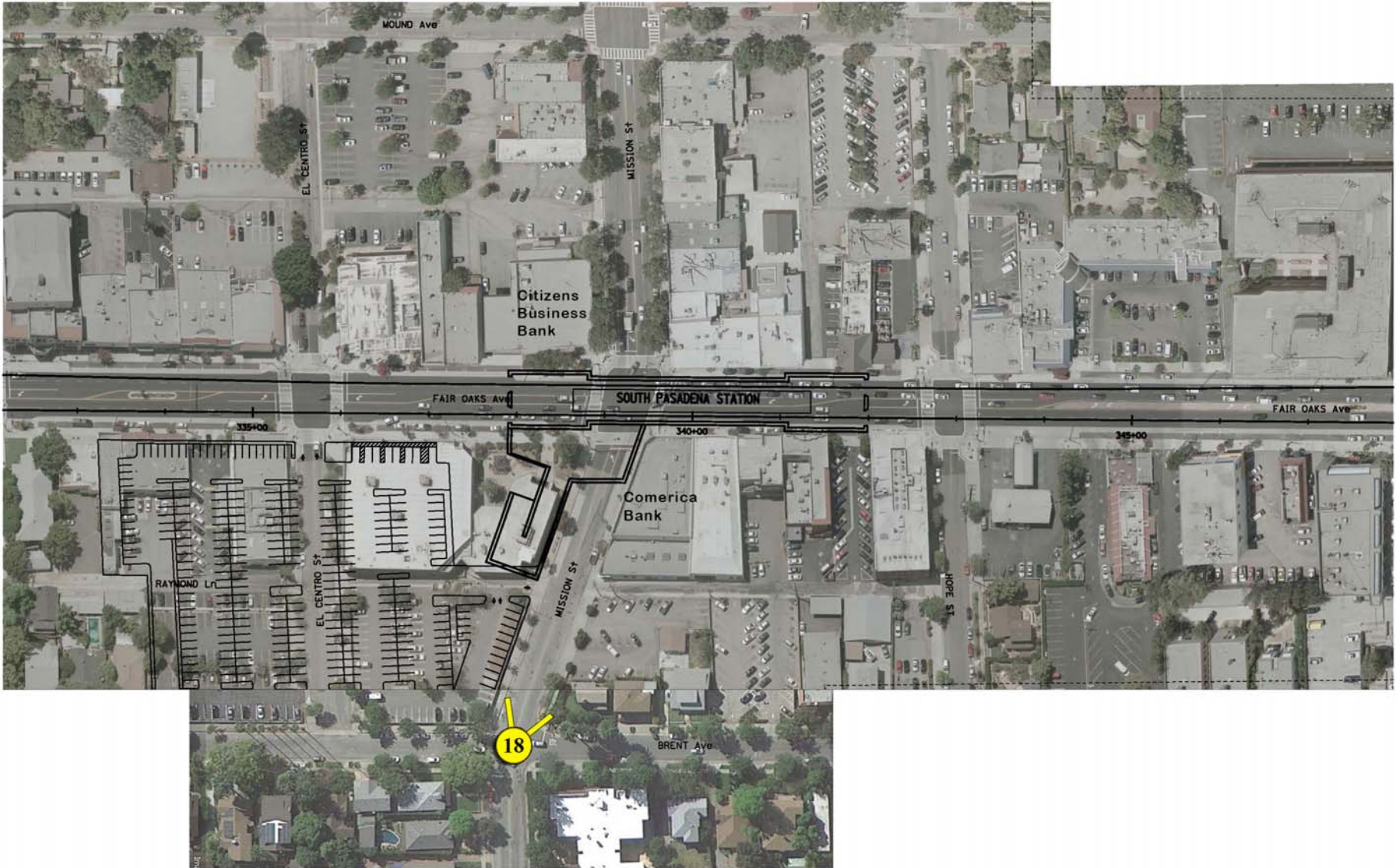


FIGURE 8-41

SR 710 North Study
Key View 18-LRT Location

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-41 KEY VIEW 18-LRT LOCATION



Existing Condition



Visual Simulation: Proposed South Pasadena Station.

KEY VIEW 18-LRT

1701 Mission Street
City of South Pasadena, CA 91030

GPS Location:
Latitude = 34° 6'55.69"N
Longitude = 118° 8'56.24"W
Heading = 288° WNW

The location of Key View 18-LRT was taken from the intersection of Mission Street and Brent Avenue. The view looks northwest towards the proposed South Pasadena Station.

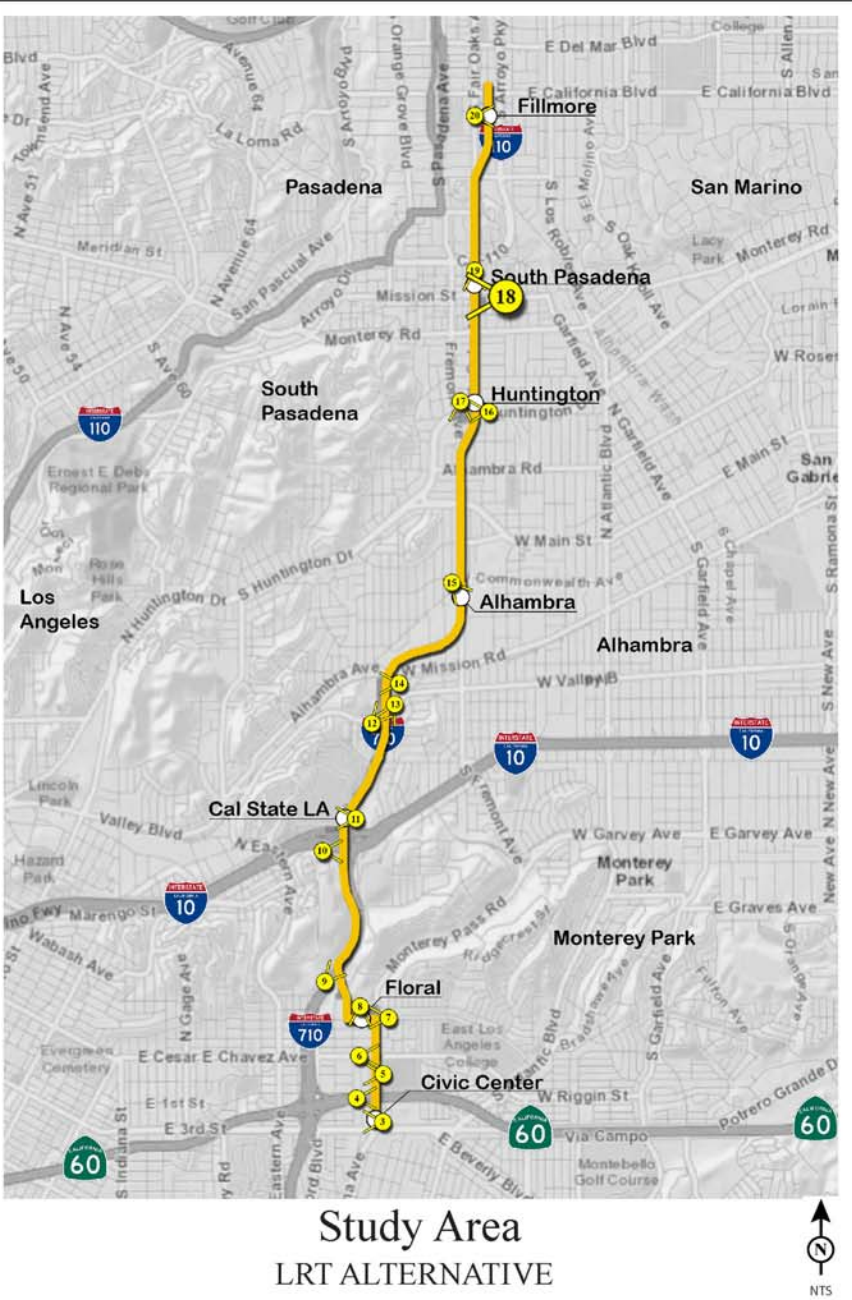


FIGURE 8-42

LEGEND			
	Light Rail Transit (LRT) Alternative		Freeways
	LRT Stations		Major Roads
	LRT Key View Locations		Local Roads

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-42 KEY VIEW 18-LRT DESCRIPTION

SR 710 North Study
Key View 18-LRT Description
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

Key View 19-LRT (Figures 8-43 and 8.44)

ORIENTATION

As shown in Figure 8-43, Fair Oaks Avenue is located in South Pasadena. The existing setting and visual simulation for Key View 19-LRT are shown in Figure 8-44.

EXISTING VISUAL QUALITY

This location of Key View 19-LRT is on Fair Oaks Boulevard. The view looking south is framed by street trees in front of commercial businesses and restaurants. The existing visual quality of this view is moderate (4.3).

	Rating	Comments
Vividness (V)	4.5	The existing vividness is moderate – the block is the heart of the commercial area of South Pasadena with historic facades and storefronts. Memorability is moderate as the area lacks distinctive features to distinguish it from any other average “Downtown USA.”
Intactness (I)	4.5	The existing intactness is moderate – the block is accented with historic facades and signage. Man-made elements including the light fixtures and traffic signal poles remain at a small scale to minimize their encroachment into the view.
Unity (U)	4.0	The existing unity is moderate – the streetscape contains a well-kept cluster of stores, businesses, and restaurants. There is a balance of visual masses of both streets and sky from a horizontal perspective and a balance of the building textures from right and left. The view is moderately harmonious, but would be more harmonious if the height of buildings were taller to balance the width of the road, or the road narrower.
Existing Visual Quality (E) ($[V+I+U]/3$)	4.3	

PROPOSED PROJECT FEATURES

At this location, the light rail line would be underground. Commuter stair structures with associated signage leading down into the South Pasadena Station would be visible along the sidewalks.

CHANGE TO VISUAL QUALITY

Currently, this portion of Fair Oaks Avenue is a 4-lane road with a center turn lane. Commuter stair structures and associated signage leading down into the underground South Pasadena Station would be constructed along the sidewalks and be the only new feature on the streetscape. The visual quality would not change.

Key View 19-LRT - Visual Quality for LRT Alternative

	Rating	Comments
Vividness (V)	4.5	The vividness would remain moderate – the only change to the streetscape would be the stair structures and associated signage leading down to the South Pasadena Station. Final designs would feature architectural treatments to these new elements that would merge into the existing visual character.
Intactness (I)	4.5	The intactness would be moderate – the only change to the streetscape would be the stair structures and associated signage leading down to the South Pasadena Station.
Unity (U)	4.0	The unity would be moderate – the only change to the streetscape would be the stair structures and associated signage leading down to the South Pasadena Station. Therefore the visual balance from left to right and from bottom to top would be maintained for the viewer.
Proposed Built Alternative Visual Quality (P) ([V+I+U]/3)	4.3	
Change in Visual Quality (LRT Alternative)	0.0	

RESOURCE CHANGE

There would be no change to visual quality. No noticeable change in visual character would occur (0.0) with the Built Alternative. The creation of stairs and addition of signage to the station does not change the character of an already commercial area. The resulting resource change would be no change (0.0).

VIEWER RESPONSE

Fair Oaks Avenue is a busy commercial corridor connecting Huntington Drive in South Pasadena to the south and Pasadena to the north. Viewer groups would include commercial pedestrians and motorists. Sensitivity to the LRT Alternative would be moderately low due to the broadness of the view and preoccupation of the viewers. Viewer exposure would be moderate because of the relative proximity to the project, number of viewers, and moderate length of duration. Average viewer response would be moderate.

RESULTING VISUAL IMPACT

Under the alternative, the visual impact in Key View 19-LRT would be moderately low (1.8) since the light rail line would be underground. The changes would result in no impact for vividness, intactness, and unity since the only change is the addition of the stair structures and associated signage leading down into the South Pasadena Station. No change in visual resources would be noticeable. Because of the sensitivity and exposure of viewers in the commercial area, the viewer awareness would be moderate.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
19-LRT	Commercial	0.0	3.5	1.8

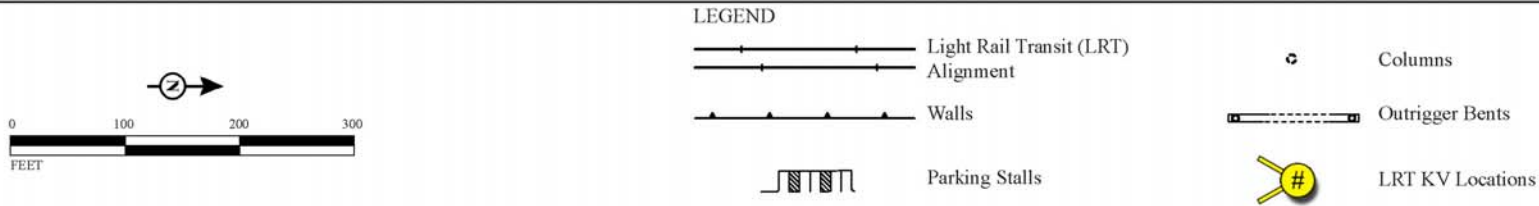
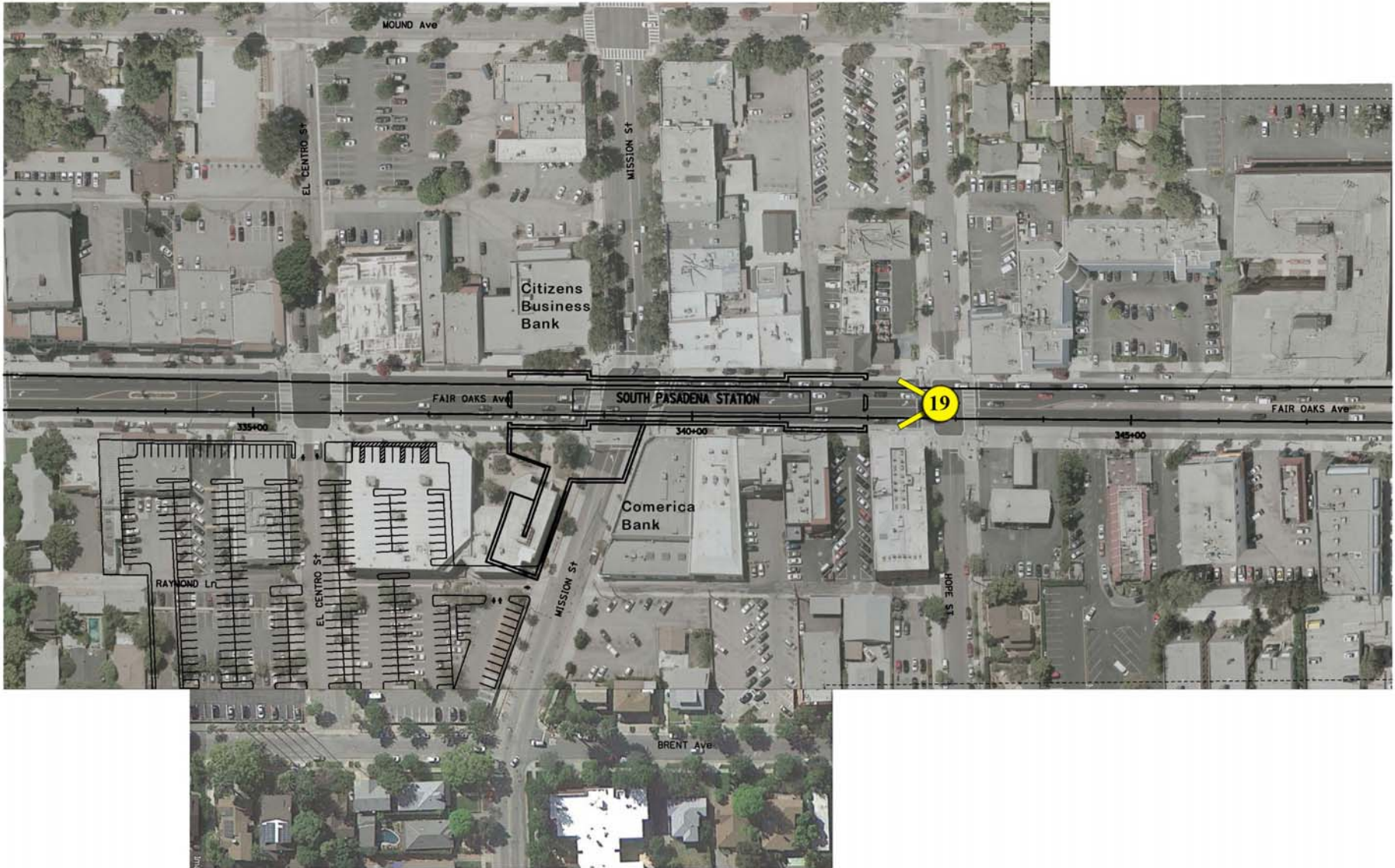


FIGURE 8-43

SR 710 North Study
Key View 19-LRT Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-43 KEY VIEW 19-LRT LOCATION



Existing Condition



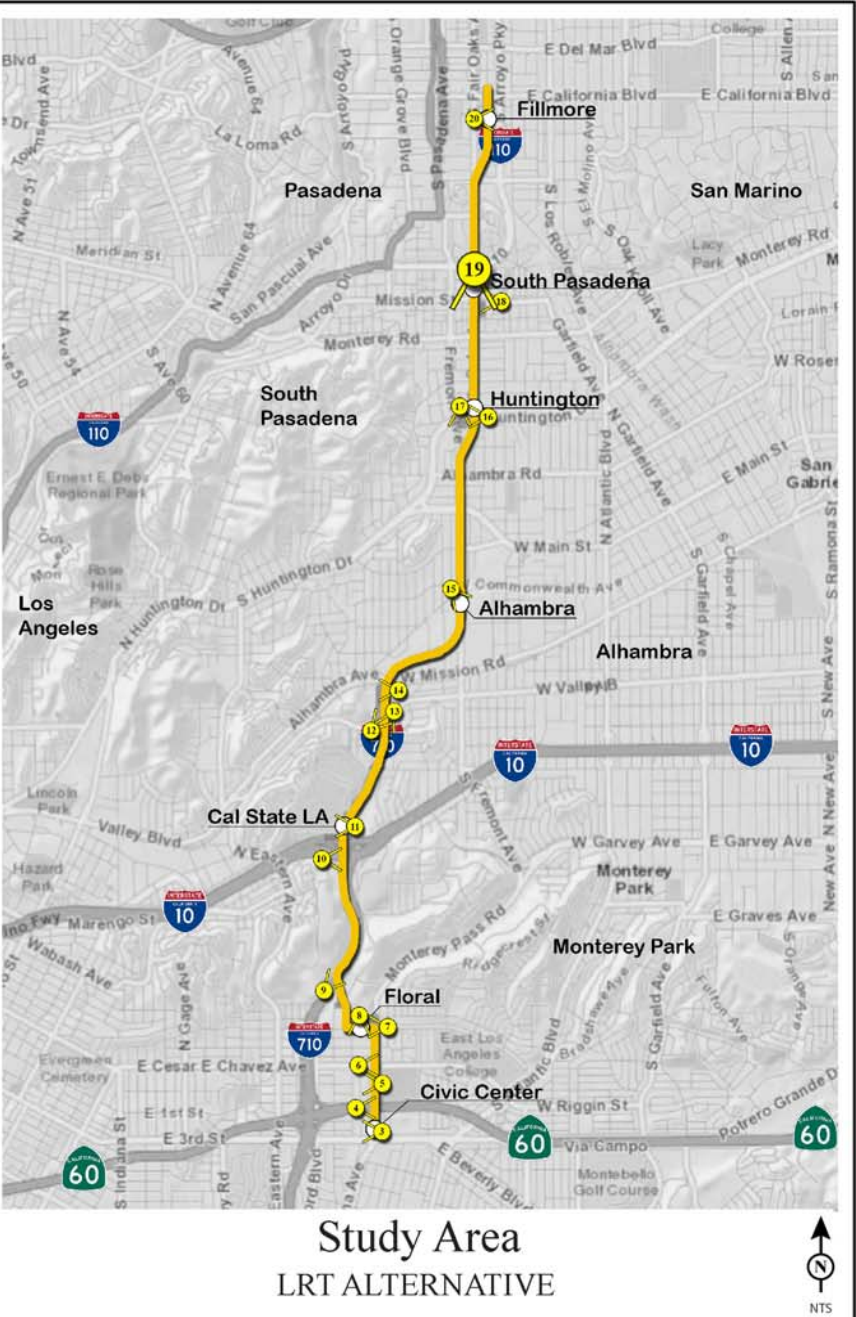
Visual Simulation: Proposed South Pasadena Station.

KEY VIEW 19-LRT

809 Fair Oaks Ave
City of South Pasadena, CA 91030

GPS Location:
Latitude = 34° 7'0.39"N
Longitude = 118° 9'1.30"W
Heading = 179° S

The location of the Key View 19-LRT was taken from the intersection of Fair Oaks Avenue and Hope Street. The view looks south towards the proposed Light Rail Transit South Pasadena Station.



SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-44 KEY VIEW 19-LRT DESCRIPTION

FIGURE 8-44

SR 710 North Study
Key View 19-LRT Description
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

Key View 20-LRT (Figures 8-45 and 8-46)

ORIENTATION

As shown in Figure 8-45, S Raymond Avenue is located in Pasadena. The existing setting and visual simulation for Key View 20-LRT are shown in Figure 8-46.

EXISTING VISUAL QUALITY

The location of Key View 20-LRT is on S Raymond Avenue. The view looking east is framed by a scattering of street trees such as palms, Lemon Bottlebrush, and oaks in front of commercial businesses and warehouses. Some of the buildings have iconic 1960's architectural features, but are otherwise industrial in nature with high-security fencing in the adjacent storage yards. The existing visual quality of this view is moderately low (3.5).

	Rating	Comments
Vividness (V)	3.5	The existing vividness is moderately low – the neighborhood is made up of industrial-type warehouses and storage yards. There is very little to combine and create visual focal points for the viewer.
Intactness (I)	3.5	The existing intactness is moderately low – the streetscape is relatively clean, but with several types of over-sized lighting fixtures encroaching into the view.
Unity (U)	3.5	The existing unity is moderately low – the streetscape alternates between buildings lining the sidewalk and storage yards with high-security fencing minimizing visual balance and there is some uniformity throughout the view.
Existing Visual Quality (E) ([V+I+U]/3)	3.5	

PROPOSED PROJECT FEATURES

At this location, the light rail station would be underground. Only a new surface parking lot, commuter stair structures and associated signage for the Fillmore Station would be visible.

CHANGE TO VISUAL QUALITY

Currently, this portion of S Raymond Avenue is a 4-lane road. Commuter stair structures and associated signage leading down into the underground Fillmore Station would be constructed within this block. The change in visual quality resulting from the Build Alternative would be minor.

Key View 20-LRT - Visual Quality for LRT Alternative

	Rating	Comments
Vividness (V)	4.0	The vividness would be moderate – the industrial buildings would be replaced with a surface parking lot and landscaping. Architectural designs would create visual interest and add a memorable feature to the view.
Intactness (I)	4.0	The intactness would be moderate – a consistent streetscape planting would screen the surface parking lot. All other constructed elements would remain at a small scale.
Unity (U)	4.0	The unity would be moderate – perimeter landscape screening and lower light fixtures would provide a more compatible streetscape. Additionally, the new architectural construction in the right side of the view would balance with the existing building wall and new shade structure on the left. The vertical lines of the proposed palm trees would also reinforce the balance of the overall view.
Proposed Built Alternative Visual Quality (P) $([V+I+U]/3)$	4.0	

Change in Visual Quality (LRT Alternative)	+0.5
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RESOURCE CHANGE

There would be no change to visual quality. Change in visual character would have moderately good compatibility (1.0) with the existing scene. The creation of a small transit plaza at the Fillmore Station widens the view, creates a point of interest, and adds an interesting focal point to the view. The resulting resource change would be low (0.8).

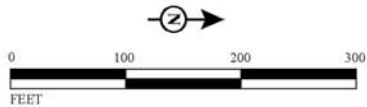
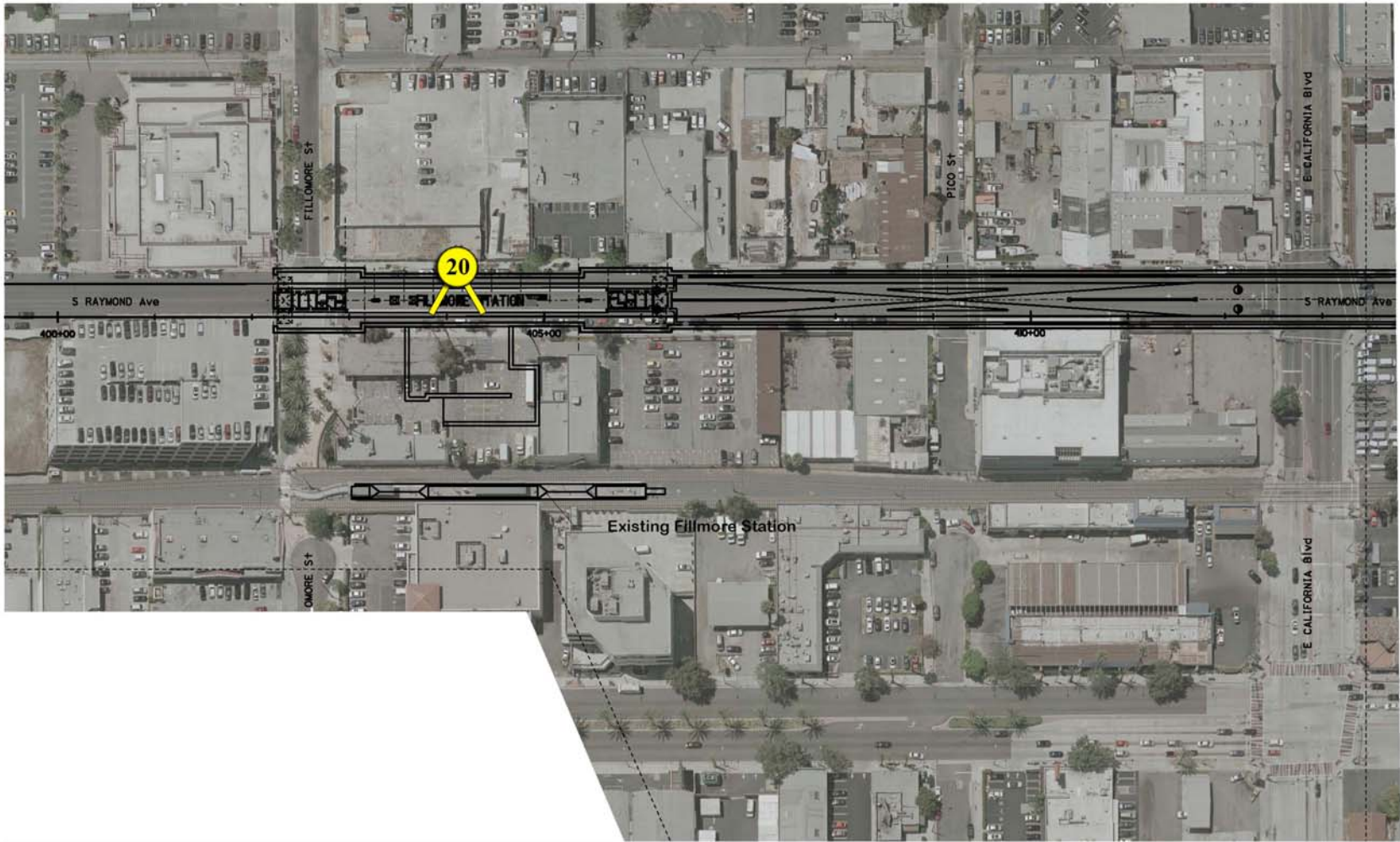
VIEWER RESPONSE

S Raymond Avenue is a busy commercial street starting in north Pasadena and terminating at the power plant on Raymond Hill at E Glenarm Street. Viewer groups include commercial pedestrians and motorists. Viewer exposure to the Fillmore Station would be moderately high, and viewer sensitivity would be moderately low. Overall viewer response would be moderate (4.0).

RESULTING VISUAL IMPACT

Under this alternative, the visual impact in Key View 20-LRT would be moderately low (2.4). The plain building facades and high-security fencing would be removed. The view would result in an increase of vividness and intactness with a better defined perimeter landscape around the surface parking and plaza paving. The visual quality would improve since the area would become more open. Viewer response would be moderate in this commercial area.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
20-LRT	Commercial	0.8	4.0	2.4



LEGEND

- | | | | |
|---|------------------------------------|---|------------------|
|  | Light Rail Transit (LRT) Alignment |  | Columns |
|  | Walls |  | Outrigger Bents |
|  | Parking Stalls |  | LRT KV Locations |

FIGURE 8-45

SR 710 North Study
Key View 20-LRT Location

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00.00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-45 KEY VIEW 20-LRT LOCATION



Existing Condition



Visual Simulation: Proposed Fillmore Station.

KEY VIEW 20-LRT

695 South Raymond Avenue
City of Pasadena, CA 91105

GPS Location:
Latitude = 34° 7'59.89"N
Longitude = 118° 8'55.90"W
Heading = 90° E

The location of the Key View 20-LRT was taken on the sidewalk along South Raymond Avenue. The view looks east towards the proposed Fillmore Station.

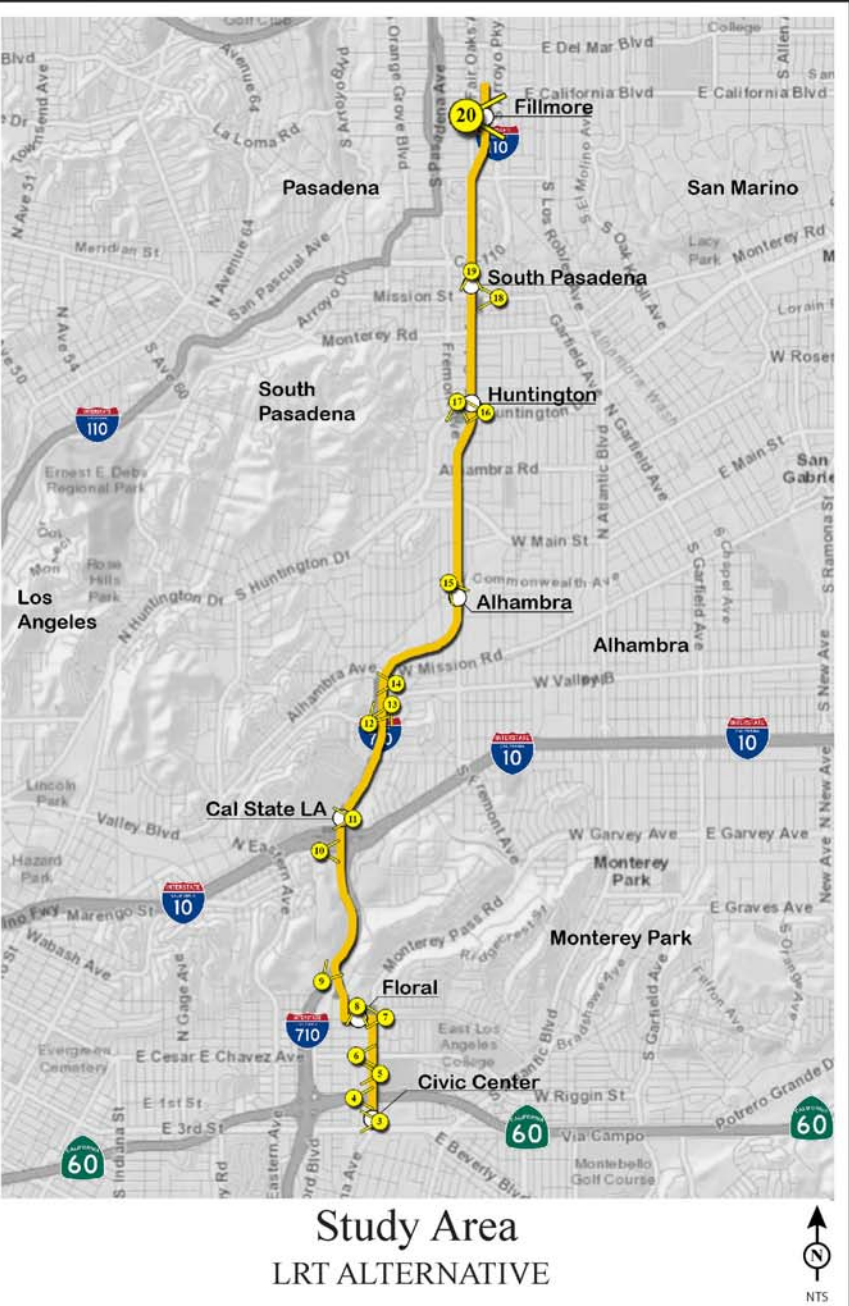


FIGURE 8-46

SR 710 North Study
Key View 20-LRT Description

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-46 KEY VIEW 20-LRT DESCRIPTION

Key View 21-FWY (Figures 8-47 and 8-48)

ORIENTATION

As shown in Figure 8-47, this view on I-710 is looking north. The existing setting and visual simulation for Key View 21-FWY are shown in Figure 8-48.

EXISTING VISUAL QUALITY

The location of Key View 21-FWY is on I-710 just north of the I-10 interchange between California State University on the left and the Midwick Park neighborhood of Alhambra on the right. The existing visual quality of this view is moderate (4.0).

	Rating	Comments
Vividness (V)	4.0	The existing vividness is moderate – the grove of Eucalyptus trees on the west side of the freeway and the backdrop of the San Gabriel Mountains make a memorable view.
Intactness (I)	3.5	The existing intactness is moderately low – the fencing, the light poles, and the back of the freeway sign detract from the tree-lined roadway and mountains seen in the background.
Unity (U)	4.5	The existing unity is moderate – the continuous lines of trees, light poles, and fencing form strong repetitive lines in this view.
Existing Visual Quality (E) ($[V+I+U]/3$)	4.0	

PROPOSED PROJECT FEATURES

At this location, the proposed freeway widening would show one new lane on each side with a concrete barrier wall separating the new lane from the existing lanes. To accommodate the road widening, concrete retaining walls would cut into the existing slope on each side of the right-of-way (ROW).

CHANGE TO VISUAL QUALITY

Currently, the campus of California State University, Los Angeles is atop the vegetated slope on the left. Under the alternative, one new lane with a concrete barrier would be added on both sides of the existing freeway. A new retaining wall would cut into the slope and some trees may need to be removed. There would be no change in visual quality.

Key View 21-FWY - Visual Quality for Freeway Tunnel Alternative

	Rating	Comments
Vividness (V)	4.0	The vividness would be moderate – although some trees would be removed for the light rail line, there would still be a line of trees on the western slope and the mountains would still be seen in the background to create visual accents.
Intactness (I)	3.5	The intactness would be moderately low – the additional man-made options (additional lanes, concrete barriers, retaining walls, and light rail line) would detract from the original view.
Unity (U)	4.5	The unity would be moderate – the additional man-made elements only add to the pattern of repeating features. Specifically the visual flow of the freeway and its lanes would be reinforced and move from the lower left to the upper right.
Proposed Built Alternative Visual Quality (P) $([V+I+U]/3)$	4.0	

Change in Visual Quality (Freeway Tunnel Alternative)	+0.0
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RESOURCE CHANGE

There would be no change to visual quality. Change in visual character would have moderately good compatibility (0.5) with the existing scene. The additional freeway lanes, concrete noise barrier walls, and retaining walls help define the space and enforce the linear pattern of the existing view. The resulting resource change would be low (0.3).

VIEWER RESPONSE

I-710 is a major freeway connecting Long Beach and Alhambra. Viewers would be freeway motorists. Viewer exposure would be moderately low because of the speed of the viewers. Viewer sensitivity would be very low because of distraction and low awareness of surroundings while driving. Freeway viewers would also be less likely to value the local existing views. Overall viewer awareness would be low (2.0).

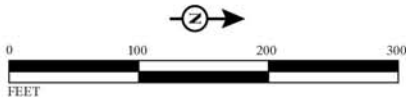
RESULTING VISUAL IMPACT

Under the alternative, the visual impact because of the additional freeway lanes, concrete noise barrier walls, and retaining walls in Key View 21-FWY would be low (1.1). Despite the widening of the freeway, vividness and intactness would not change. The change in visual character would be neutral. Viewer response of motorists on the freeway would be low.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
21-FWY	Freeway	0.3	2.0	1.1



FIGURE 8-47



SR 710 North Study
Key View 21-FWY Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-47 KEY VIEW 21-FWY LOCATION



Existing Condition



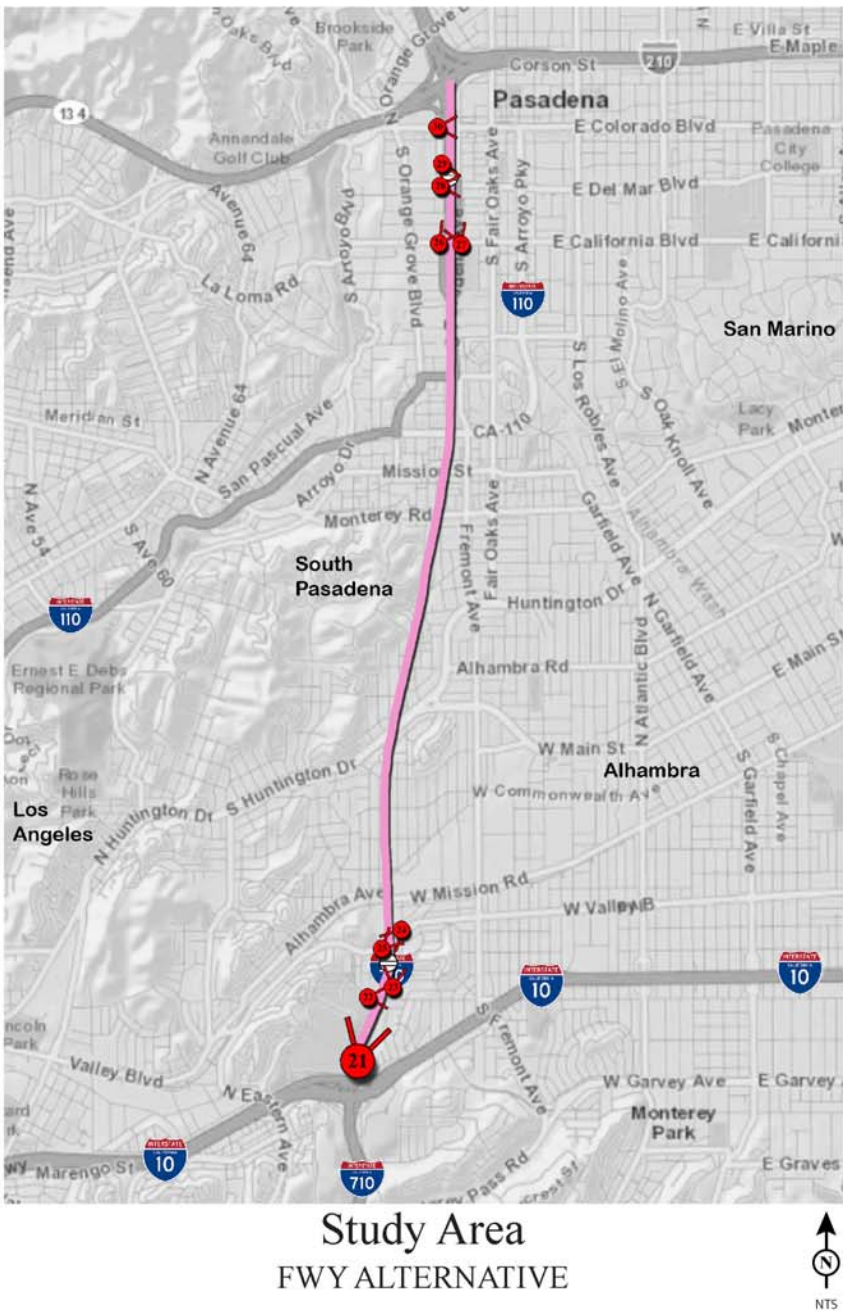
Visual Simulation: Proposed Freeway tunnel impact area.

KEY VIEW 21-FWY

I-10 Westbound to SR-710 Northbound Ramp
City of Alhambra, CA 91803

GPS Location:
Latitude = 34° 3'55.06"N
Longitude = 118° 9'50.67"W
Heading = 17° NNE

The location of Key View 21-FWY was taken from the SR-710 Northbound at I-10 Westbound to SR-710 ramp junction. The view looks northeast towards the proposed freeway tunnel impact area.



SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-48 KEY VIEW 21-FWY DESCRIPTION

Key View 22-FWY (Figures 8-49 and 8-50)

ORIENTATION

As shown in Figure 8-49, Hellman Avenue crosses over I-710 and connects to California State University, Los Angeles on the west. The existing setting and visual simulation for Key View 22-FWY are shown in Figure 8-50.

EXISTING VISUAL QUALITY

The location of Key View 22-FWY is on the western side of the Hellman Avenue facing east toward the overpass over I-710. The existing visual quality of this view is moderate (4.0).

	Rating	Comments
Vividness (V)	4.0	The existing vividness is moderate – the small 2-lane bridge leading into the residential neighborhood is framed with heavy foliage. These elements all converge to a horizon point in the middle left of the view.
Intactness (I)	4.0	The existing intactness is moderate – the campus light fixture in the foreground and the utility poles in the background intrude into this view.
Unity (U)	4.0	The existing unity is moderate – the bridge railing and light poles form a strong repetitive pattern in a curving movement from bottom left, swiping toward the middle and then terminating at the horizon point in the middle left of the view.
Existing Visual Quality (E) ($[V+I+U]/3$)	4.0	

PROPOSED PROJECT FEATURES

At this location, retaining walls would be needed to support the widening of the Hellman Avenue bridge.

CHANGE TO VISUAL QUALITY

Currently, the west side of I-710 contains surface parking for California State University student housing. On the east side of I-710 is the Midwick Park single-family neighborhood of Alhambra. Under the alternative, retaining walls would be added on each side of the road to accommodate the widening of the Hellman Avenue bridge. The visual quality would not change.

Key View 22-FWY - Visual Quality for Freeway Tunnel Alternative

	Rating	Comments
Vividness (V)	4.0	The vividness would remain moderate – except for the addition of the retaining walls, this alternative would remain largely unchanged from the existing view.
Intactness (I)	4.0	The intactness would remain moderate – the addition of another man-made feature (retaining wall) would intrude into this view to the same degree as the existing view.
Unity (U)	4.0	The unity would be moderate – except for the addition of the retaining walls, this alternative would remain largely unchanged from the existing view. The balance would be maintained along both horizontal and vertical axis.
Proposed Built Alternative Visual Quality (P) ($[V+I+U]/3$)	4.0	

Change in Visual Quality (Freeway Tunnel Alternative)	0.0
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RESOURCE CHANGE

There would be no change to visual quality. Change in visual character would have moderately poor compatibility (-0.5) with the existing scene. The widening of the bridge urbanizes the character of the view which is more suburban in the existing view. The resulting resource change would be low (-0.3).

VIEWER RESPONSE

Hellman Avenue connects Alhambra on the east and California State University, Los Angeles on the west. The majority of viewers would be in the education pedestrian viewer group. With the widening of the bridge, sensitivity and viewer exposure to the freeway is likely to be moderate to high. Viewer exposure would be moderate due to the nearness to the view and duration of viewership, and sensitivity would be moderately high due to local values, awareness, and narrow focus. Overall viewer response would be moderately high (-4.5).

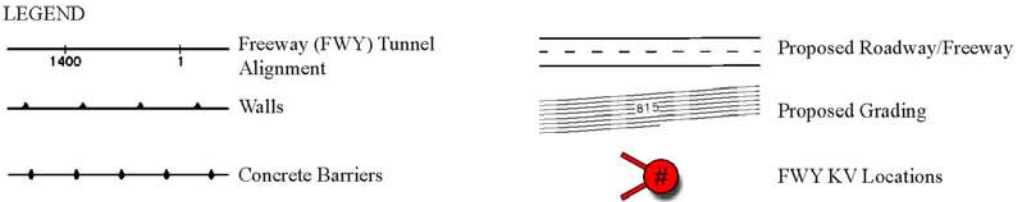
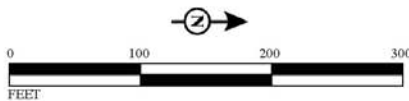
RESULTING VISUAL IMPACT

Under the alternative, the visual impact in Key View 22-FWY would be moderately low (-2.4). Change to visual resources, even with the addition of the retaining walls on either side of the road, would be low as very little change would happen in character compatibility, vividness, intactness, and unity. Viewer response from the education pedestrian viewer group would be moderately high.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
22-FWY	Education	-0.3	-4.5	-2.4



FIGURE 8-49



SR 710 North Study
Key View 22-FWY Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-49 KEY VIEW 22-FWY LOCATION



Existing Condition



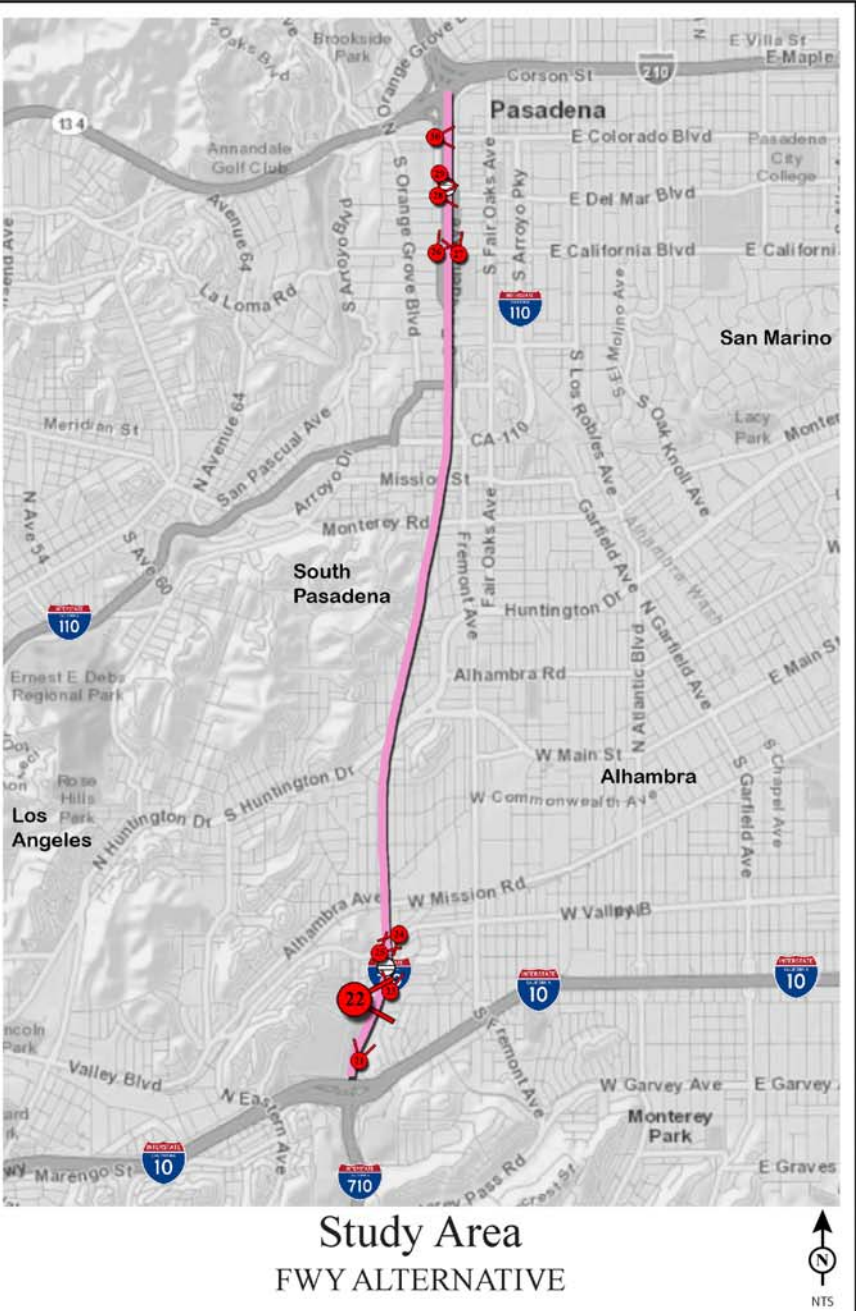
Visual Simulation: Proposed Bridge Replacement at Hellman Avenue.

KEY VIEW 22-FWY

5300 Paseo Rancho Castilla
City of Los Angeles, CA 90032

GPS Location:
Latitude = 34° 4'10.92"N
Longitude = 118° 9'47.67"W
Heading = 89° E

The location of Key View 22-FWY was taken on the sidewalk along Paseo Rancho Castilla, next to the California State University, Los Angeles campus parking lot. The view looks east towards the proposed Hellman Avenue bridge replacement over the SR-710.



LEGEND

LEGEND

- | | | | |
|--|-------------------------------|--|-------------|
| | FWY Tunnel Alternative | | Freeways |
| | FWY Tunnel Portals | | Major Roads |
| | FWY Tunnel Key View Locations | | Local Roads |

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00.00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-50 KEY VIEW 22-FWY DESCRIPTION

FIGURE 8-50

SR 710 North Study
Key View 22-FWY Description
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

Key View 23-FWY (Figures 8-51 and 8-52)

ORIENTATION

As shown in Figure 8-51, this view on I-710 is looking north. The existing setting and visual simulation for Key View 23-FWY are shown in Figure 8-52.

EXISTING VISUAL QUALITY

The location of Key View 23-FWY is on I-710 just north of the Hellman Avenue overpass. The existing visual quality of this view is moderate (4.0).

	Rating	Comments
Vividness (V)	4.0	The existing vividness is moderate – the freeway is framed by heavy vegetation on both sides and the San Gabriel Mountains in the background create a memorable scene.
Intactness (I)	4.0	The existing intactness is moderate – utility poles encroach into the view along both sides of the road.
Unity (U)	4.5	The existing unity is moderate – the trees along the sides of the roadway, together with the freeway barrier in the center median, reinforces the horizontal nature of this view.
Existing Visual Quality (E) ($[V+I+U]/3$)	4.2	

PROPOSED PROJECT FEATURES

At this location, the proposed upper and lower deck lanes would be visible within the I-710 ROW. A new retaining wall would be created on the eastern side of the ROW. At the end of this view, the I-710 begins to enter a tunnel. The computer simulation in Figure 8-52 depicts a Double Bore Tunnel. Another alternative under consideration is a Single Bore Tunnel.

CHANGE TO VISUAL QUALITY

Currently, the sides of I-710 are vegetated. Under the alternative, the freeway would be widened to accommodate the upper and lower deck lanes. The road widening would provide little change in vividness and intactness. A new retaining wall would be visible along the eastern side of the ROW and the construction of this wall would remove some of the trees. Additionally a new noise barrier (6 to 20 feet in height) would be constructed in this same location. Figure 8-52 depicts a Double Bore Tunnel, which would cause the greatest disruption to unity due to the increased number of openings. Another alternative under consideration is a Single Bore Tunnel, which would result in a slightly reduced change in quality with fewer retaining walls. The resulting visual change of this Build Alternative would be minor.

The Single Bore Tunnel might also disturb less area on the adjacent hillsides. The resulting change in visual quality would be minor.

Key View 23-FWY - Visual Quality for Freeway Tunnel Alternative

	Rating	Comments
Vividness (V)	4.0	The vividness would remain moderate – the heavy vegetation and the view of the San Gabriel Mountains would be largely unchanged from the existing view.
Intactness (I)	4.0	The intactness would be moderate – wider freeway would remove a small portion of the foreground trees and intrude into the view.
Unity (U)	4.0	The unity would be moderate – the roadway widening and retaining walls would add to the repeating pattern in this view. However these elements create a stronger flow from lower left to middle which conflicts with the horizontal flow of the existing view.
Proposed Visual Quality (P) ([V+I+U]/3)	4.0	
Change in Visual Quality (Freeway Tunnel Alternative)	-0.2	

RESOURCE CHANGE

There would be a minor change to visual quality. Change in visual character would have poor compatibility (-1.5) with the existing scene. The grade changes, freeway widening, walls, and tunnels add contrasting chaos to the existing narrow, simple, calm stretch of freeway. The resulting resource change would be low (-0.9).

VIEWER RESPONSE

I-710 is a major freeway between Long Beach and Alhambra. Freeway motorists would be the main viewer group at this key view location. Sensitivity and viewer exposure to the freeway is likely to be moderately low to low because of distraction from driving, wide views, and lack of local value for the existing area. The overall viewer response would be low (-2.0).

RESULTING VISUAL IMPACT

Under the alternative, the visual impact from the widening of the freeway and creation of the retaining wall and noise barrier in Key View 23-FWY would be low (-1.4).. The visual quality would be reduced. Visual character change would have poor compatibility with the existing view. Visual resource change and viewer response from freeway motorists would be low.

Under the Single Bore Tunnel alternative, the visual quality would be also reduced, but to a lesser degree. The resulting visual impact could be extrapolated from the Double Bore Tunnel alternative's rating to be low as well.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
23-FWY	Freeway	-0.9	-2.0	-1.4

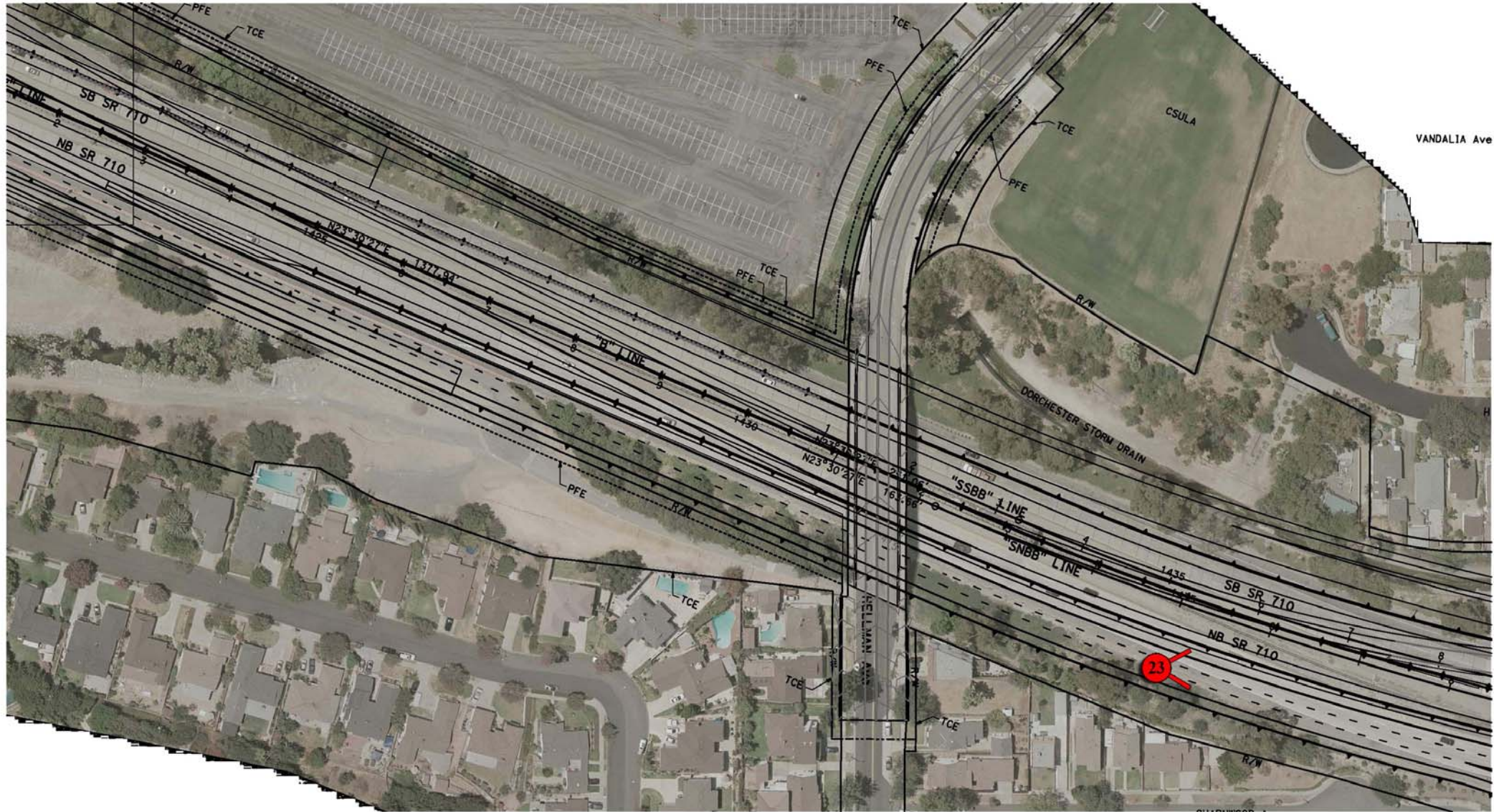
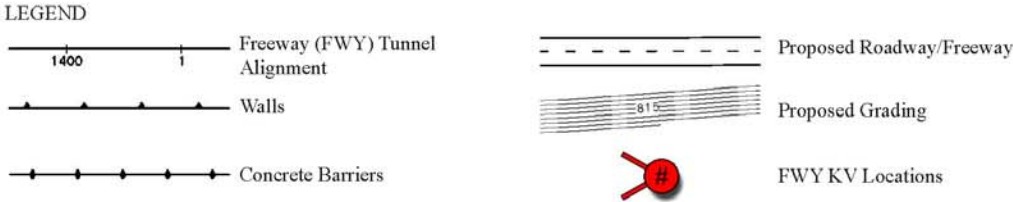
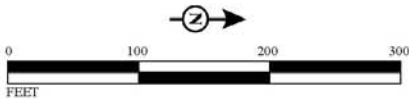


FIGURE 8-51



SR 710 North Study
Key View 23-FWY Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-51 KEY VIEW 23-FWY LOCATION



Existing Condition



Visual Simulation: Proposed southern portal.

KEY VIEW 23-FWY

SR-710 Northbound, North of Paseo Rancho Castilla
City of Alhambra, CA 91803

GPS Location:
Latitude = 34° 4'13.87"N
Longitude = 118° 9'41.33"W
Heading = 18° NNE

The location of Key View 23-FWY was from the SR-710 Northbound shoulder approx. 360 feet north of Hellman Avenue bridge. The view looks northeast towards the proposed southern portal.

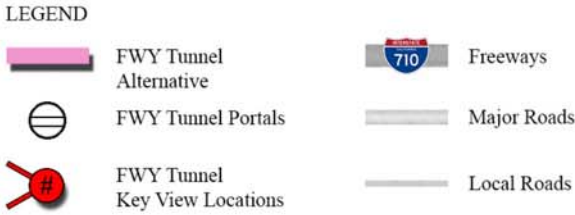
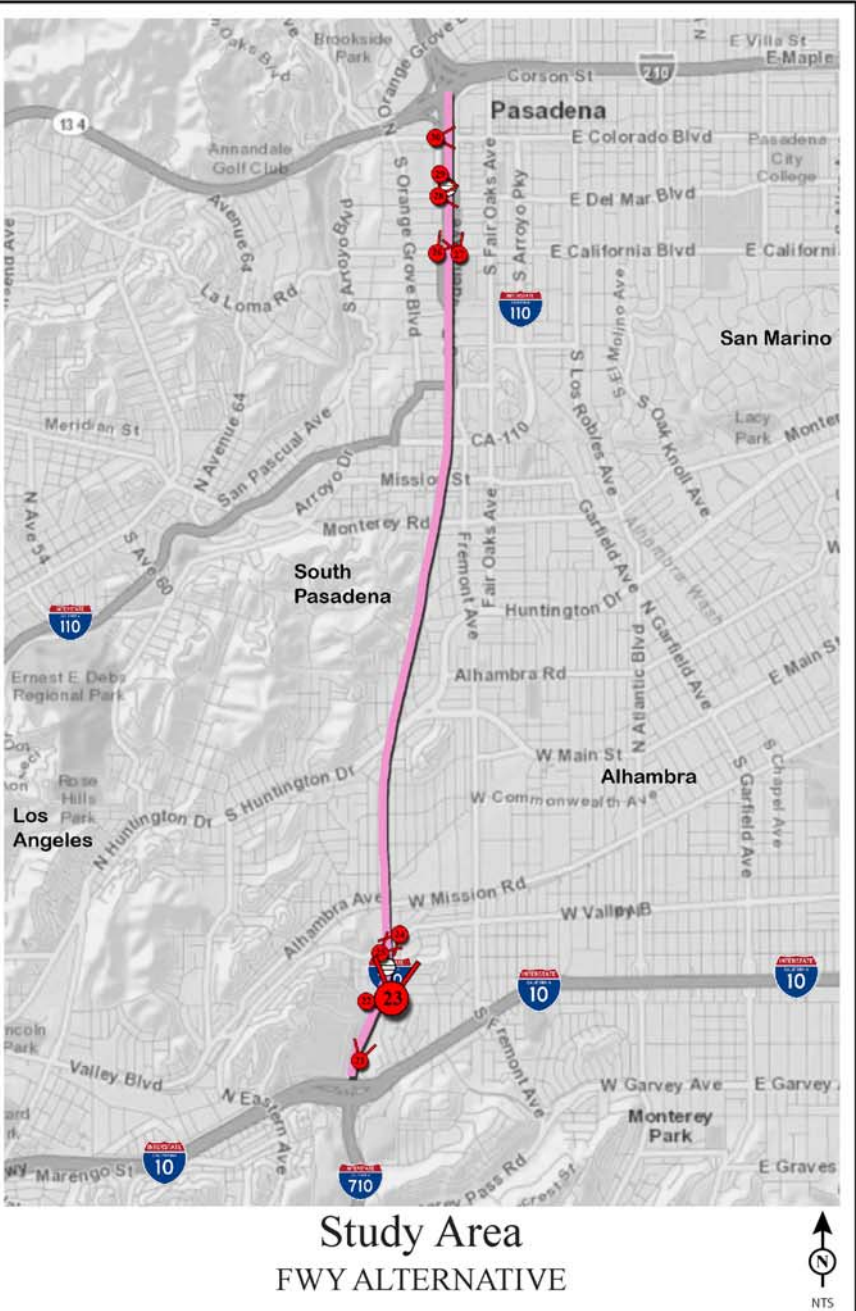


FIGURE 8-52

SR 710 North Study
Key View 23-FWY Description
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-52 KEY VIEW 23-FWY DESCRIPTION

Key View 24-FWY (Figures 8-53 and 8-54)

ORIENTATION

As shown in Figure 8-53, this view is looking southwest where the proposed SR 710 North Project off-ramp connects to W Valley Boulevard. The existing setting and visual simulation for Key View 24-FWY are shown in Figure 8-54.

EXISTING VISUAL QUALITY

The location of Key View 24-FWY is at the end of I-710 where the end of the exit ramp meets W Valley Boulevard. The existing visual quality of this view is moderate (4.0).

	Rating	Comments
Vividness (V)	4.5	The existing vividness is moderate – the scene is a nicely landscaped berm which serves as the visual focal point for the viewer.
Intactness (I)	3.5	The existing intactness is moderately low – the utility poles and traffic signs disrupts the views of the landscape and the view in general.
Unity (U)	4.0	The existing unity is moderate – the larger portion of the view is dominated by the landscaped berm. This berm along with the sky and the street create three distinct visual masses into a uniform 1/3, 1/3, 1/3 proportion.
Existing Visual Quality (E) ($[V+I+U]/3$)	4.0	

PROPOSED PROJECT FEATURES

At this location, the I-710 tunnel would already be underground. The existing berm would be removed.

CHANGE TO VISUAL QUALITY

Currently, the area between the off-ramp and on-ramp of I-710 onto W Valley Boulevard is a large landscaped berm. Under this alternative, the berm would be removed. The visual unity, vividness, and intactness would be reduced. The change in visual quality resulting from the Build Alternative would be medium.

 Freeway Tunnel AlternativeKey View 24-FWY - Visual Quality for Freeway Tunnel Alternative

	Rating	Comments
Vividness (V)	3.5	The vividness would be moderately low - with the landscape berm removed, vehicles in the parking lot on the west side of the I-710 on-ramp would be visible. However, future architectural designs will increase the vividness of the view by creating strong visual focal points.
Intactness (I)	3.0	The intactness would be moderately low – additional vehicles visible in this view would add to the intrusions by the man-made features.
Unity (U)	3.5	The unity would be moderately low – lack of screening makes more vehicles visible and minimizes the original proportions of the view.
Proposed Built Alternative Visual Quality (P) ([V+I+U]/3)	3.3	

Change in Visual Quality (Freeway Tunnel Alternative)	-0.7
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RESOURCE CHANGE

There would be a minor change to visual quality. Change in visual character would have moderately poor compatibility (-1.0) with the existing scene due to the removal of an existing hill. Removing the hillside would remove a green, vegetated feature of visual interest. The resulting resource change would be low (-0.9).

VIEWER RESPONSE

W Valley Boulevard is a heavily used exit and on-ramp for the City of Alhambra. Viewer groups for this key view would include freeway and commercial motorists and pedestrians. Viewer exposure would be moderate due to the large number of viewers but relatively short duration of viewership. Viewer sensitivity would be low due to the wide views and distracting activities in the area such as driving and shopping. Overall viewer response would be moderately low (-3.0).

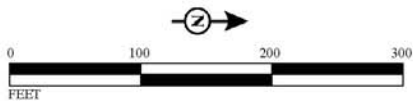
RESULTING VISUAL IMPACT

Under the alternative, the visual impact associated with the Built Alternative and removal of the landscaped berm in Key View 24-FWY would be moderately low (-1.9).. Visual resource change would be low, and viewer awareness would be moderately low.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
24-FWY	Commercial, Freeway	-0.9	-3.0	-1.9



FIGURE 8-53



LEGEND

- Freeway (FWY) Tunnel Alignment
- Walls
- Concrete Barriers

- Proposed Roadway/Freeway
- Proposed Grading
- FWY KV Locations

SR 710 North Study
Key View 24-FWY Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-53 KEY VIEW 24-FWY LOCATION



Existing Condition



Visual Simulation: Proposed southern portal area.

KEY VIEW 24-FWY

3201 W. Valley Boulevard
City of Alhambra, CA 91803

GPS Location:
Latitude = 34° 4'31.70"N
Longitude = 118° 9'37.02"W
Heading = 245° WSW

The location of Key View 24-FWY was taken on the sidewalk along Valley Boulevard slightly east of the SR-710 off-ramp. The view looks southwest towards the proposed southern portal area.

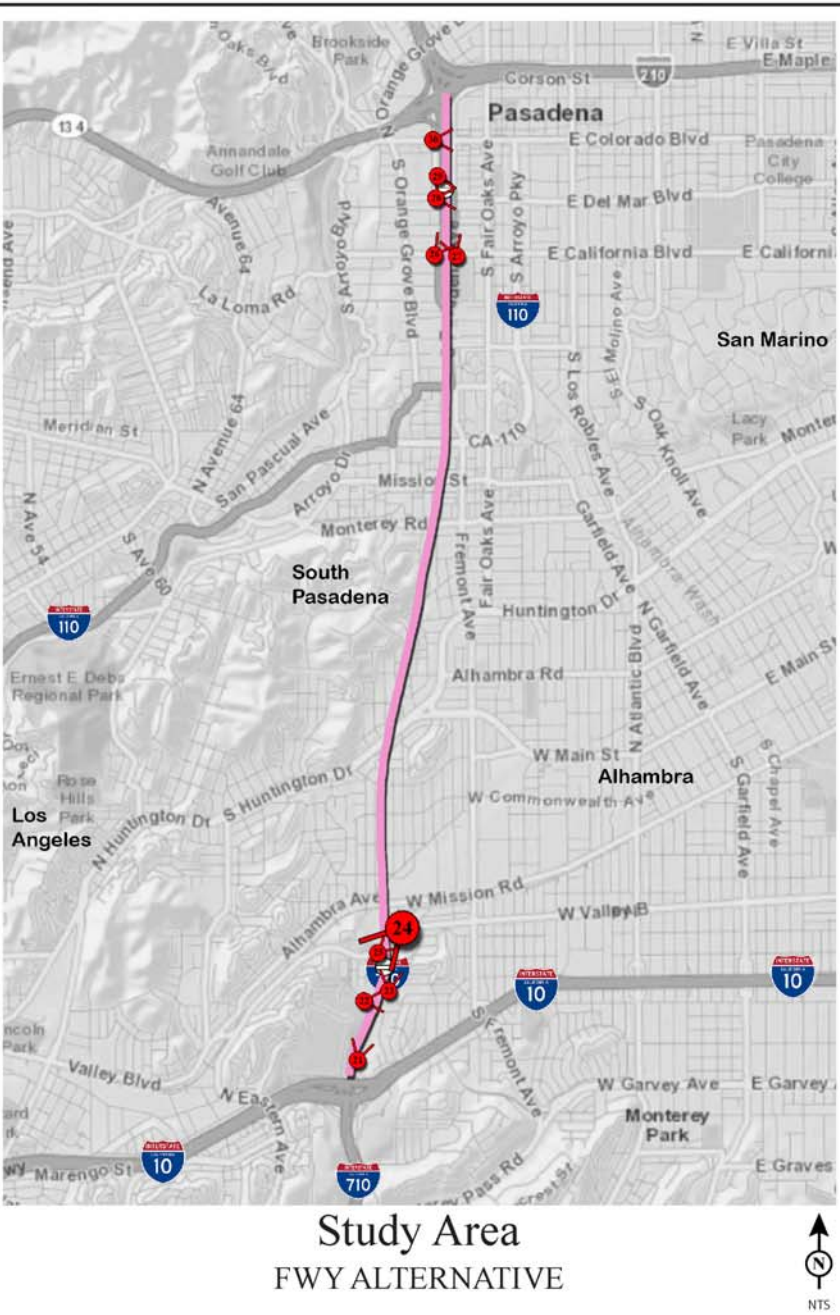


FIGURE 8-54

LEGEND	
	FWY Tunnel Alternative
	Freeways
	FWY Tunnel Portals
	Major Roads
	FWY Tunnel Key View Locations
	Local Roads

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-54 KEY VIEW 24-FWY DESCRIPTION

SR 710 North Study
Key View 24-FWY Description
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

Key View 25-FWY (Figures 8-55 and 8-56)

ORIENTATION

As shown in Figure 8-55, this view is looking northeast where the W Valley Boulevard on-ramp begins to connect to I-710 South. The existing setting and visual simulation for Key View 25-FWY are shown in Figure 8-56.

EXISTING VISUAL QUALITY

The location of Key View 25-FWY takes place where I-710 meets W Valley Boulevard. A large berm dominates the view on the north side of W Valley Boulevard between the on-ramp and off-ramp. The existing visual quality of this view is moderately low (3.0).

	Rating	Comments
Vividness (V)	3.5	The existing vividness is moderate – the large berm dominates the north side of W. Valley Boulevard between businesses.
Intactness (I)	2.5	The existing intactness is low – utility poles, power lines, and a variety of business signage disrupts the view of this streetscape.
Unity (U)	3.0	The existing unity is moderately low – the clutter of utilities and signage affects the proportions of the view. There are no distinct visual masses or flows for the viewer.
Existing Visual Quality (E) ([V+I+U]/3)	3.0	

PROPOSED PROJECT FEATURES

At this location, the proposed Operation Maintenance Building (OMC) would have frontage on the north side of W Valley Boulevard. Behind the building and along the east side, the existing berm would be re-graded to a lower profile and be re-landscaped.

CHANGE TO VISUAL QUALITY

Currently, the ROW area is an undeveloped zone consisting of a grassed berm. Under the alternative, the new OMC would have frontage on the western side. The existing berm would be re-graded and re-landscaped. This would help fill part of the streetscape that is void of any development now. Additionally a ventilation stack is located in the middle of the OMC building. However this does not extend above the roof line. Unity would decrease due to the style of the new OMC. The visual quality change resulting from the Build Alternative would be medium.

Key View 25-FWY - Visual Quality for Freeway Tunnel Alternative

	Rating	Comments
Vividness (V)	5.0	The vividness would be moderately high - the unique architecture of the OMC and the associated landscaped trellis would add a distinctive addition to this undeveloped parcel. Further architectural features will create a very memorable experience for the viewer.
Intactness (I)	4.0	The intactness would be moderate – the utility lines and fencing will be replaced with a new building on the streetscape.
Unity (U)	2.5	The unity would be low – the unusual roof of the new OMC structures along Valley Boulevard would stand out from the existing structures on W Valley Boulevard and unbalance the proportions of the view and weight it toward the left side of the view.
Proposed Built Alternative Visual Quality (P) ([V+I+U]/3)	3.8	

Change in Visual Quality (Freeway Tunnel Alternative)	+0.8
--	------

RESOURCE CHANGE

There would be a minor change to visual quality. Change in visual character would have moderately good compatibility (1.0) with the existing view. The new maintenance building would have interesting architecture, creating a feature of visual interest. The resulting resource change would be low (0.9).

VIEWER RESPONSE

W Valley Boulevard serves as one of the major gateways into Alhambra from I-710. Viewer groups would include commercial pedestrians and motorists. Viewer sensitivity would be moderately low due to unlikely value for the existing view and distracting activities and awareness. Viewer exposure would be moderately high due to the large number of viewers. Average viewer response would be moderate.

RESULTING VISUAL IMPACT

Under the alternative, the visual impact in Key View 25-FWY would be moderate (2.5). The addition of a new building and new landscaping would result in a positive resource change with more vividness, intactness, and compatible character change. Viewer response would be moderate.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
25-FWY	Commercial	0.9	4.0	2.5

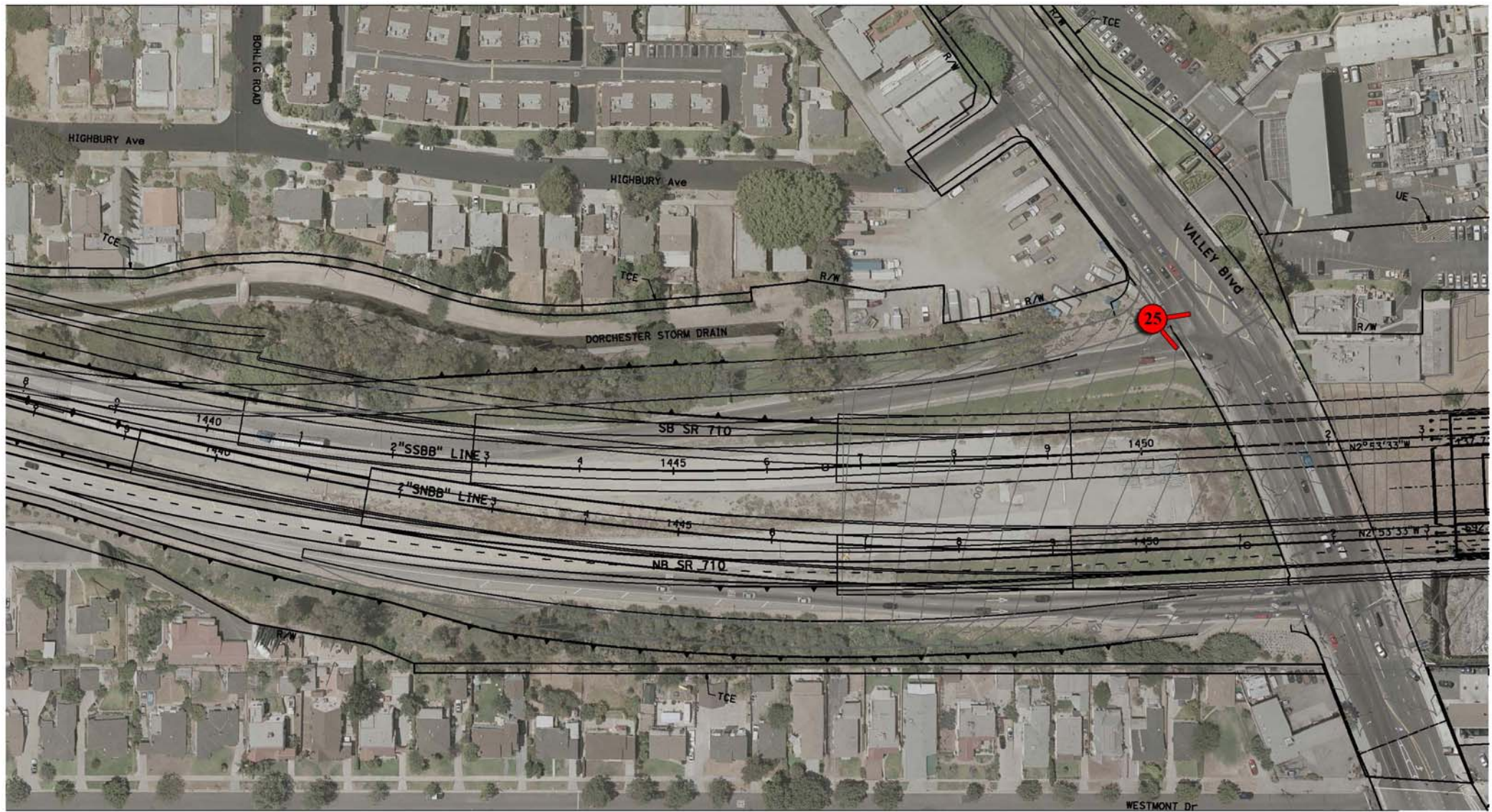
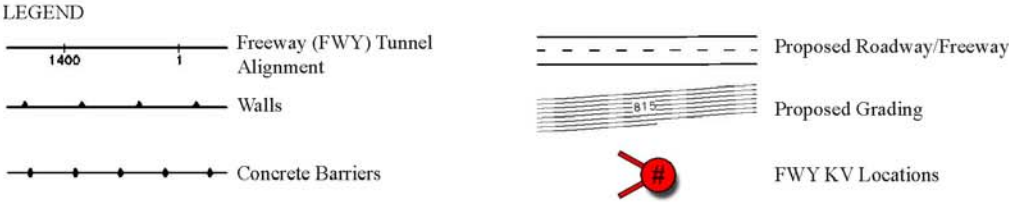
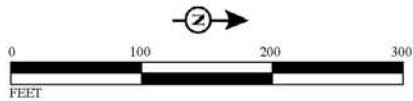


FIGURE 8-55



SR 710 North Study
Key View 25-FWY Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-55 KEY VIEW 25-FWY LOCATION



Existing Condition



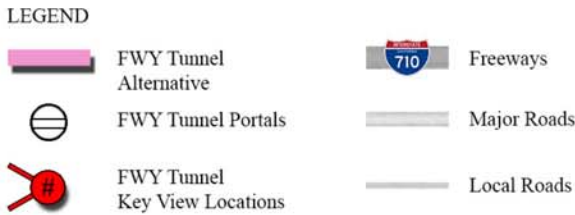
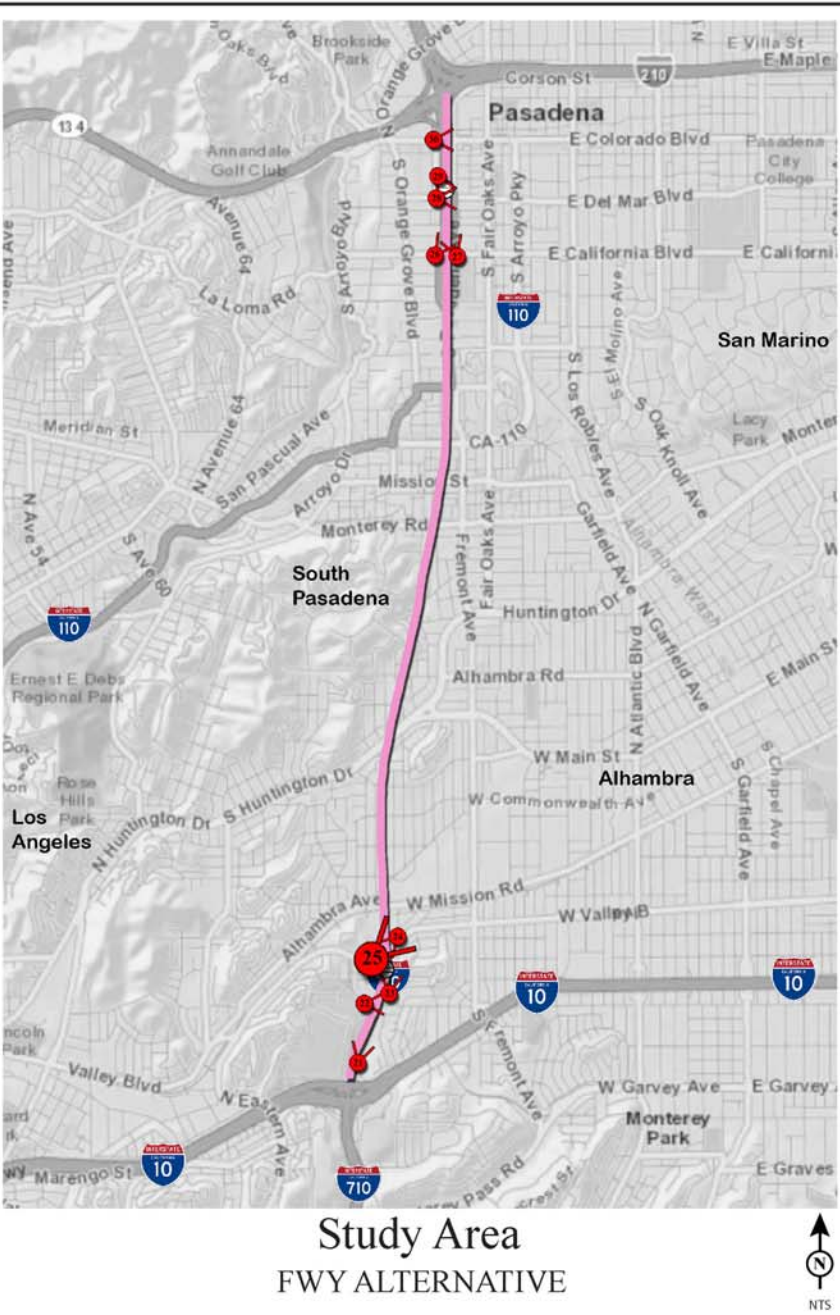
Visual Simulation: Proposed Operation Maintenance Building (OMC).

KEY VIEW 25-FWY

5288 West Valley Boulevard
City of Alhambra, CA 91803

GPS Location:
Latitude = 34° 4'28.66"N
Longitude = 118° 9'42.27"W
Heading = 25° NNE

The location of Key View 25-FWY was taken at the intersection of SR-710 on-ramp and Valley Boulevard. The view looks northeast towards the proposed Operation Maintenance Building (OMC).



SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-56 KEY VIEW 25-FWY DESCRIPTION

SR 710 North Study
Key View 25-FWY Description
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

FIGURE 8-56

Key View 26-FWY (Figures 8-57 and 8-58)

ORIENTATION

As shown in Figure 8-57, this view is from Singer Park on Saint John Avenue looking northeast. The existing setting and visual simulation for Key View 26-FWY are shown in Figure 8-58.

EXISTING VISUAL QUALITY

Key View 26-FWY is located at the intersection of Saint John Avenue and California Boulevard. A view of the San Gabriel Mountains can be seen in the background. The existing visual quality of this view is moderately low (3.5).

	Rating	Comments
Vividness (V)	4.0	The existing vividness is moderate – an orderly streetscape with a large shade trees canopy over 2-story residential buildings. These large trees are in the right foreground and serve as the focus of the view
Intactness (I)	3.0	The existing intactness is moderately low – a few street signs and utility poles encroach into the streetscape.
Unity (U)	3.5	The existing unity is moderately low – the scale of the residential architecture sets a uniform pattern along the street. However, there are no visual masses to create patterns and uniformity with the exception of the sky.
Existing Visual Quality (E) ($[V+I+U]/3$)	3.5	

PROPOSED PROJECT FEATURES

At this location, the proposed OMC Building might be seen in the background. The re-alignment of the off-ramp would mean new paving for this intersection across from Singer Park.

CHANGE TO VISUAL QUALITY

Currently, the Saint John Avenue serves as the off-ramp for southbound traffic on the SR 710 onto California Boulevard. Under the alternative, the re-alignment would require new paving for this intersection. This new paving would result in increased vividness and intactness but unity would remain close to the same. The change in visual quality resulting from the Build Alternative would be minor.

Key View 26-FWY - Visual Quality for Freeway Tunnel Alternative

	Rating	Comments
Vividness (V)	4.1	The vividness would be moderate – the new paving and sidewalks would give this intersection a fresh appearance. The replacement of the older wood pole on the left as well as the traffic signal in the upper left would allow a clearer view of the mountain line in the background.
Intactness (I)	3.5	The intactness would be moderate – the addition of the OMC building adds a larger profile on the streetscape, but there was already a building visible in the background.
Unity (U)	3.5	The unity would be moderate – very little change other than the new paving, sidewalks, and the OMC building. These elements alone do not create any visual masses or flow which would improve the unity of this view.
Proposed Built Alternative Visual Quality (P) ($[V+I+U]/3$)	3.7	

Change in Visual Quality (Freeway Tunnel Alternative)	+0.2
--	------

RESOURCE CHANGE

There would be a minor change to visual quality. Change in visual character would have moderately good compatibility (0.1) with the existing view. The new maintenance building would have interesting architecture, creating a feature of visual interest. The resulting resource change would be low (0.1).

VIEWER RESPONSE

Viewer groups represented at this key view location would include recreation pedestrians. Viewers would have moderately high exposure and sensitivity to the project from this public park which includes a playground.

RESULTING VISUAL IMPACT

Under the alternative, the visual impact in Key View 26-FWY would be moderate (2.6) because of the moderately high response from the recreation viewer group. Visual resource change with the new paving of Saint John Avenue and where this off-ramp meets California Boulevard would be low.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
26-FWY	Recreation	0.1	5.0	2.6

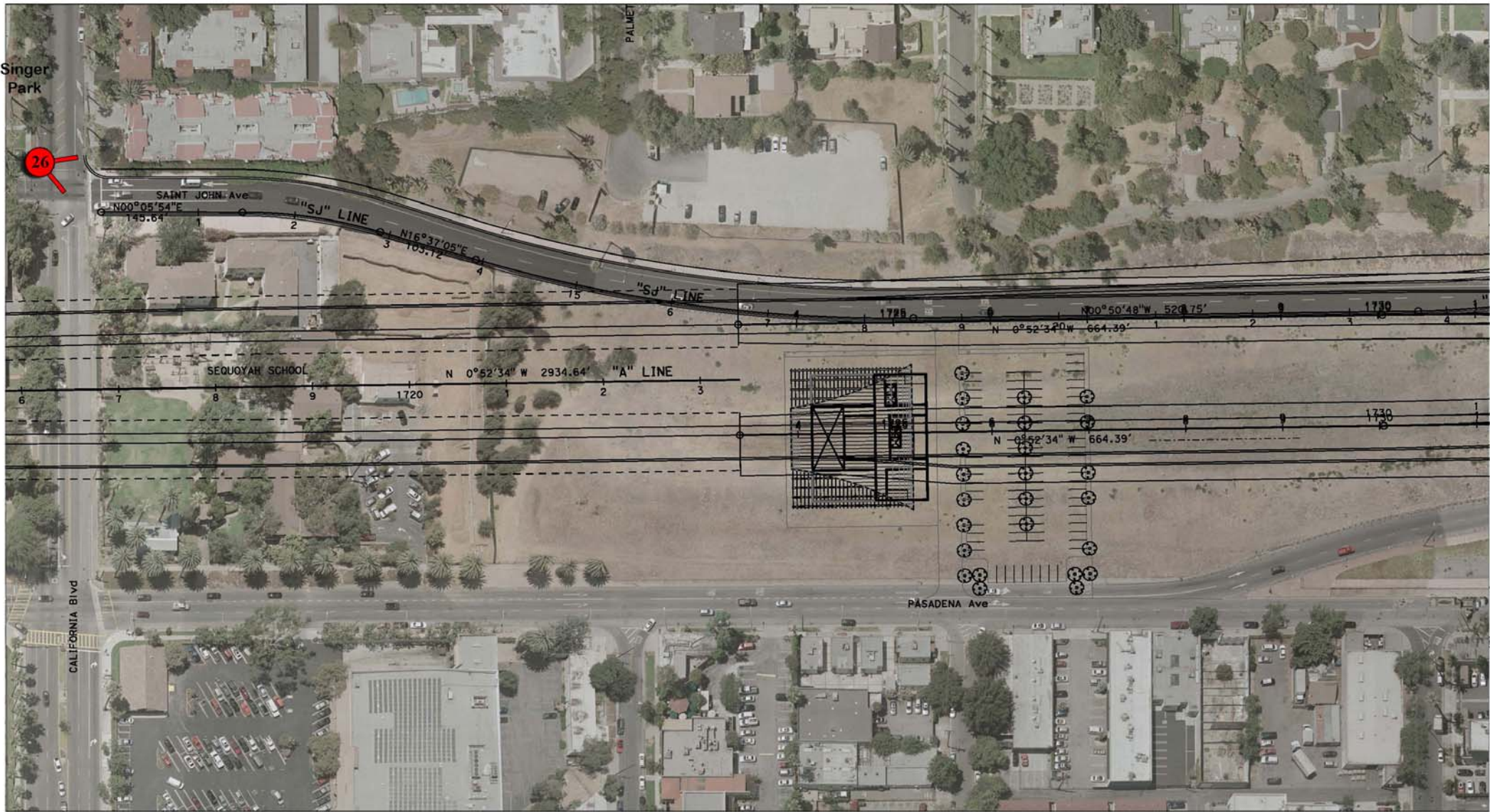
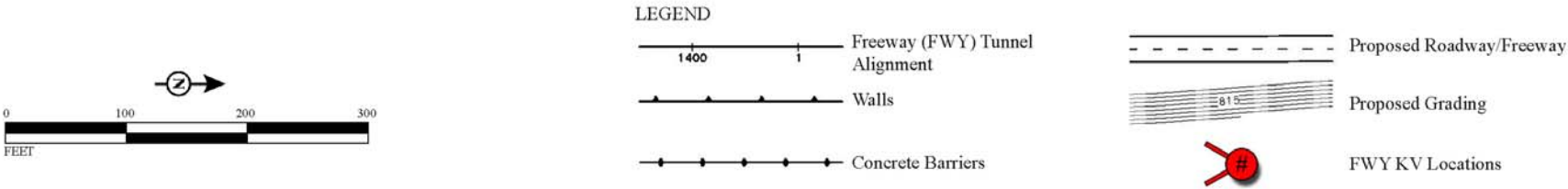


FIGURE 8-57



SR 710 North Study
Key View 26-FWY Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-57 KEY VIEW 26-FWY LOCATION



Existing Condition



Visual Simulation: Proposed Freeway tunnel impact at W. California Boulevard and Saint John Avenue.

KEY VIEW 26-FWY

300-336 W. California Boulevard
City of Pasadena, CA 91105

GPS Location:
Latitude = 34° 8'8.83"N
Longitude = 118° 9'20.18"W
Heading = 9° N

The location of Key View 26-FWY was taken from the corner of Singer Park, intersection of Saint John Avenue and California Boulevard. The view looks north towards the proposed Operation Maintenance Building (OMC).

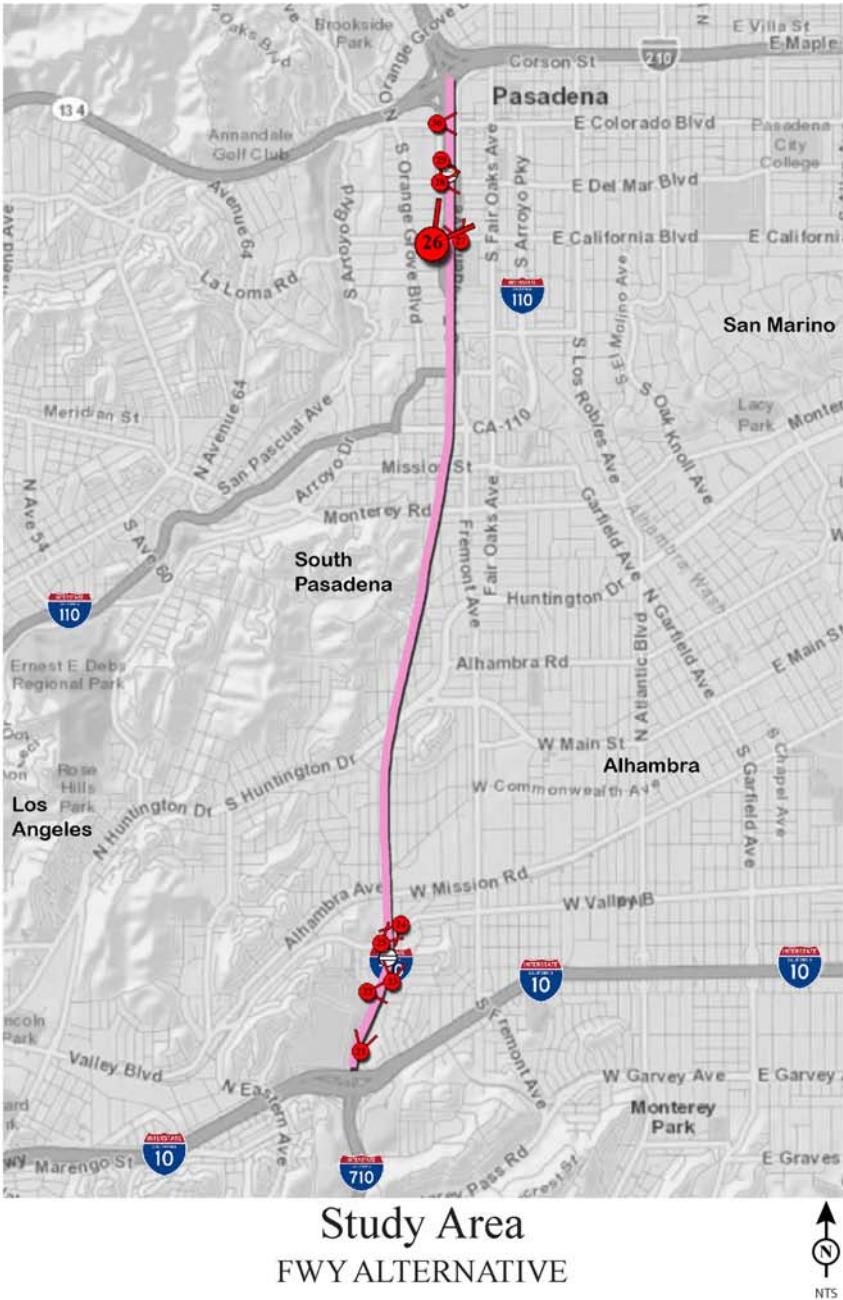
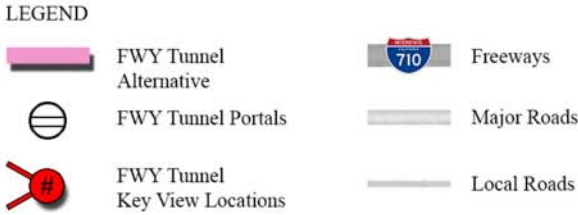


FIGURE 8-58



SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-8-58 KEY VIEW 26-FWY DESCRIPTION

Key View 27-FWY (Figures 8-59 and 8-60)

ORIENTATION

As shown in Figure 8-59, this view is looking north, northwest from the intersection of California Boulevard and South Pasadena Avenue toward the SR 710 terminus. The existing setting and visual simulation for Key View 27-FWY are shown in Figure 8-60.

EXISTING VISUAL QUALITY

The location of Key View 27-FWY is at the intersection of two major traffic routes within the Pasadena community. The existing community consists mainly of commercial and institutional land uses. The visual character hosts a number of mature landscape and trees. The existing visual quality of this view is moderate (4.2).

	Rating	Comments
Vividness (V)	4.5	The existing vividness is moderately high due to the large mass of mature skyline of trees that occupy the majority of the view. This mass of trees creates a lush greenbelt making this element dominant over the street and surrounding structures.
Intactness (I)	4.0	The existing intactness is moderate – There are very few visual intrusions into the view by man-made elements. The surrounding streets visually serve to balance the mass of the trees.
Unity (U)	4.0	The existing unity is moderate – the linear pattern of the trees, configuration of the street, and visual character of the street striping all work together in the bottom-left corner to middle of the view.
Existing Visual Quality (E) ($[V+I+U]/3$)	4.2	

PROPOSED PROJECT FEATURES

At this location, the proposed OMC building would be visible at the far end of the mass of mature trees on the left side of South Pasadena Avenue.

CHANGE TO VISUAL QUALITY

Viewers would have a filtered view of the proposed OMC building at the far end of the tree mass. There would be no change in visual quality.

Key View 27-FWY - Visual Quality for Freeway Tunnel Alternative

	Rating	Comments
Vividness (V)	4.5	The vividness would be moderately high – The large mass of mature trees on the left side of South Pasadena Avenue would remain unaffected.
Intactness (I)	4.0	The intactness would remain moderate – The introduction of the proposed OMC building does not alter the original intrusion-free character of the view.
Unity (U)	4.0	The unity would remain moderate – the proposed OMC building does not impact the visual pattern or flow of the existing condition.
Proposed Built Alternative Visual Quality (P) ($[V+I+U]/3$)	4.2	

Change in Visual Quality (Freeway Tunnel Alternative)	0.0
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RESOURCE CHANGE

There would be no change to visual quality. No change in visual character occur (0.0) with the existing scene due to the removal of an existing hill. The filtered view combined with the perspective of the viewer's angle would create the illusion that the OMC building is among or behind the tree mass. It does not appear to be taller than these trees. The visual resources would not change (0.0).

VIEWER RESPONSE

Viewer groups at this key view location include commercial pedestrians and motorists. Viewer exposure would be moderate since a large number of viewers may travel through the area for moderate durations of time. Viewer sensitivity would be moderately low because of reduced awareness, wide views, and distracting activities. Average viewer response would be moderate (3.5).

RESULTING VISUAL IMPACT

Under the alternative, the visual impact in Key View 27-FWY would be moderately low (1.8). The addition of the proposed OMC building does not change the vividness, intactness, or unity of the existing view. Viewer response in this commercial area would be moderate (3.5).

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
27-FWY	Commercial	0.0	3.5	1.8

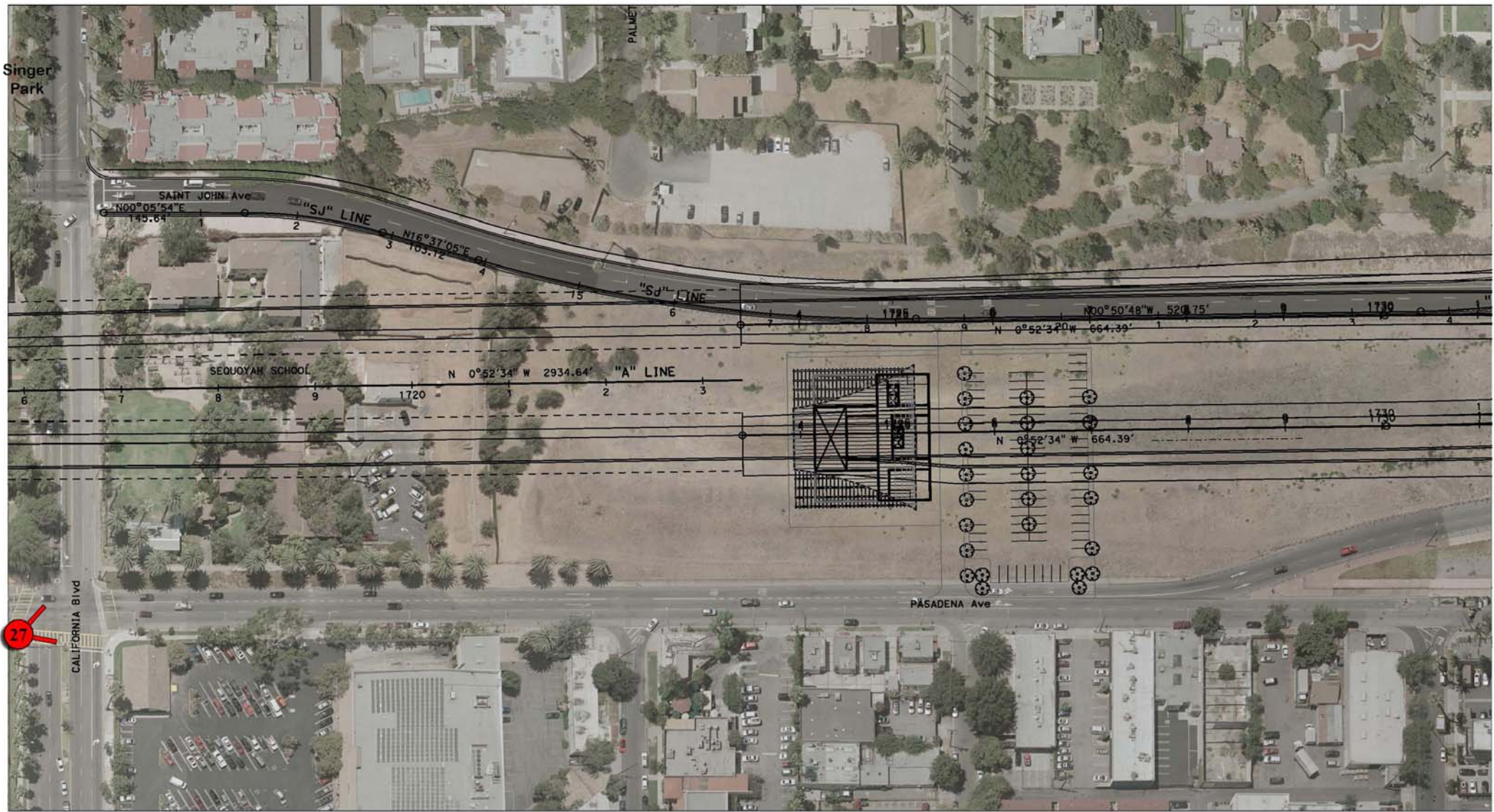
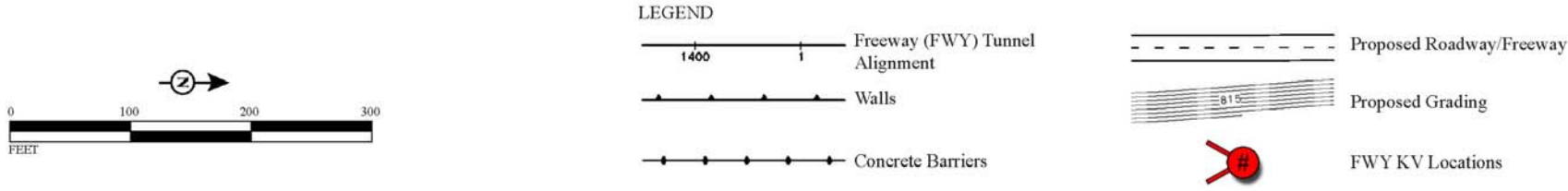


FIGURE 8-59



SR 710 North Study
Key View 27-FWY Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-59 KEY VIEW 27-FWY LOCATION



Existing Condition



Visual Simulation: Proposed Freeway tunnel impact at W. California Boulevard and S. Pasadena Avenue.

KEY VIEW 27-FWY

Huntington Hospital
100 W. California Boulevard
City of Pasadena, CA 91105

GPS Location:
Latitude = 34° 8'8.19"N
Longitude = 118° 9'14.41"W
Heading = 352° N

The location of Key View 27-FWY was taken from the corner of Huntington Hospital, intersection of S. Pasadena Avenue and California Boulevard. The view looks north towards the proposed Operation Maintenance Building (OMC).

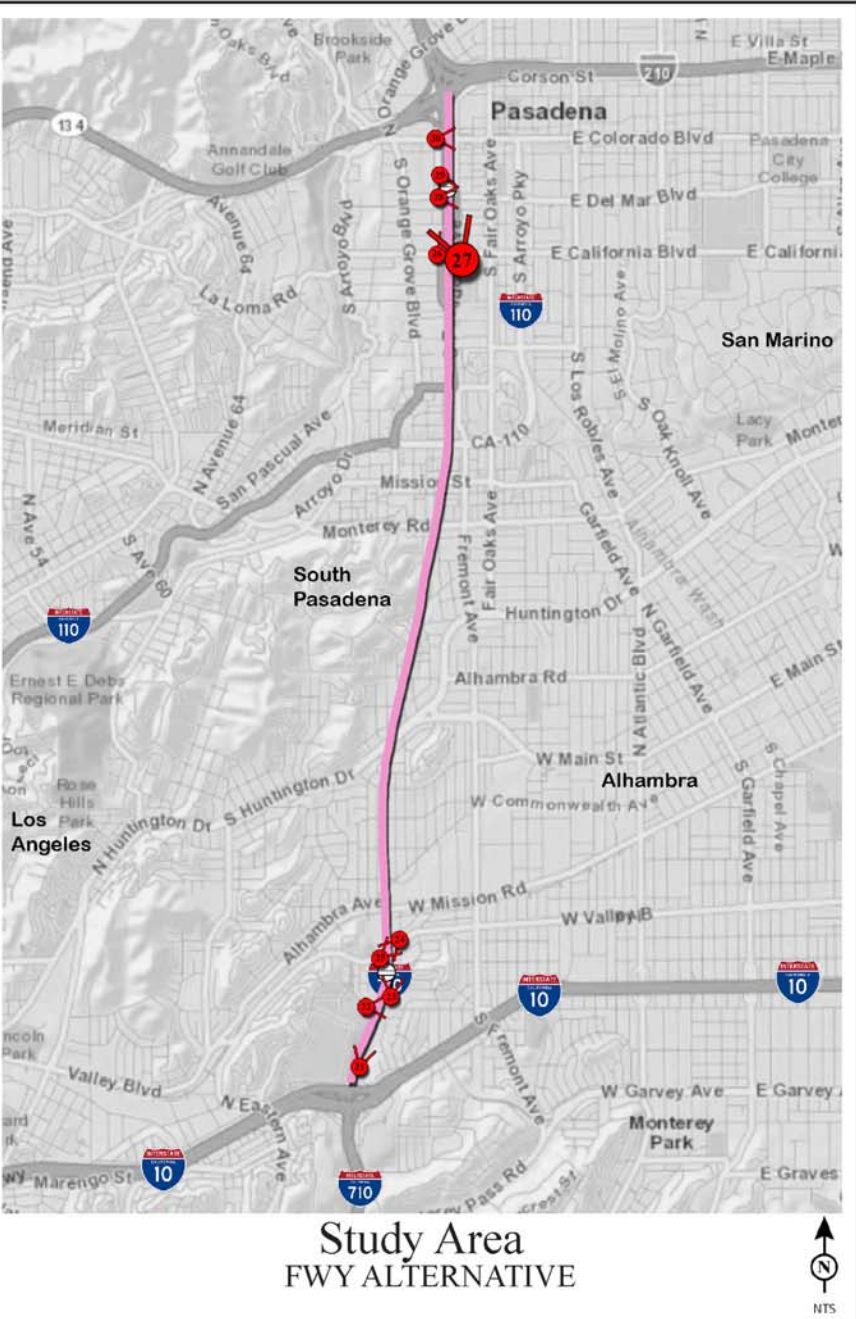
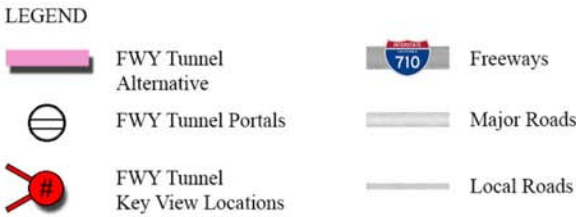


FIGURE 8-60



SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00.00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-60 KEY VIEW 27-FWY DESCRIPTION

Key View 28-FWY (Figures 8-61 and 8-62)

ORIENTATION

As shown in Figure 8-61, this view is looking east down Del Mar Boulevard on the west side of the I-710 terminus from Maranatha High School. The existing setting and visual simulation for Key View 28-FWY are shown in Figure 8-62.

EXISTING VISUAL QUALITY

Key View 28-is located looking east down Del Mar Boulevard toward the southern edge of downtown Pasadena. The existing visual quality of this view is moderately low (3.5).

	Rating	Comments
Vividness (V)	3.0	The existing vividness is moderately low – the overpass bridge leads across the end of the SR 710 northern terminus toward apartments and businesses. These apartments and businesses create minor points of visual interest.
Intactness (I)	3.5	The existing intactness is moderately low – street signage and lighting intrude into this view across the overpass bridge.
Unity (U)	4.0	The existing unity is moderate – the railing, light poles, and scale of the buildings strengthens the pattern of the streetscape scene. There is a clear massing of street paving and sky to create visual balance/uniformity.
Existing Visual Quality (E) ($[V+I+U]/3$)	3.5	

PROPOSED PROJECT FEATURES

At this location, the proposed re-alignment of Saint John Avenue would mean new overpass improvements. This would include new paving and bringing the on-ramps/off-ramps closer to the center.

CHANGE TO VISUAL QUALITY

Currently, the west side of SR 710 is residential with the overpass linking this neighborhood to the lower downtown area of Pasadena. Under the alternative, new improvements to the overpass including new paving and turn lane islands would be made. The change in visual quality resulting from the Build Alternative would be minor.

Key View 28-FWY - Visual Quality for Freeway Tunnel Alternative

	Rating	Comments
Vividness (V)	4.0	The vividness would be moderate – new paving, the new overpass railing and the addition of the turn lane island would add a fresh look and give a sense of visual focal point to this overpass.
Intactness (I)	3.5	The intactness would be moderately low – the new hardscape improvement features do not change the intactness of this view due to the remaining light fixtures.
Unity (U)	4.0	The unity would be moderate – all of the new hardscape improvements fall within the existing limits of the overpass. The same visual balance between pavement and sky would exist in this view.
Proposed Built Alternative Visual Quality (P) ([V+I+U]/3)	3.8	
Change in Visual Quality (Freeway Tunnel Alternative)	+0.3	

RESOURCE CHANGE

There would be minor change to visual quality. Change in visual character would have moderately good compatibility (1.0) with the existing view. New paving would reinforce the existing character with new asphalt and bright paint. The visual resources change would be low (0.7).

VIEWER RESPONSE

Del Mar Boulevard serves as a major exit for the lower side of downtown Pasadena and surrounding neighborhoods. The nearby Maranatha High School makes this view representative of education viewer groups which are mostly pedestrians. Viewer exposure would be moderate and viewer sensitivity would be moderately high. Overall viewer response would be moderately high.

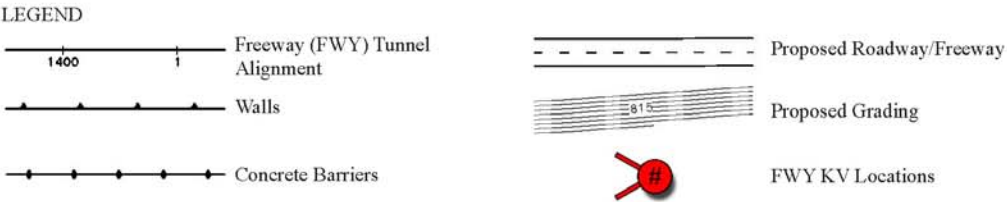
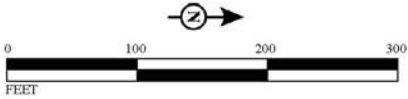
RESULTING VISUAL IMPACT

Under the alternative, the visual impact in Key View 28-FWY would be moderate (2.6). The new paving would result in an increase in vividness. Intactness and unity would remain similar. Change in visual character would have moderately good compatibility with the existing view. Viewer response from the education viewer groups would be moderately high.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
28-FWY	Education	0.7	4.5	2.6



FIGURE 8-61



SR 710 North Study
Key View 28-FWY Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-61 KEY VIEW 28-FWY LOCATION



Existing Condition



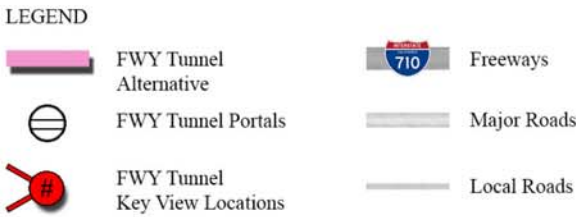
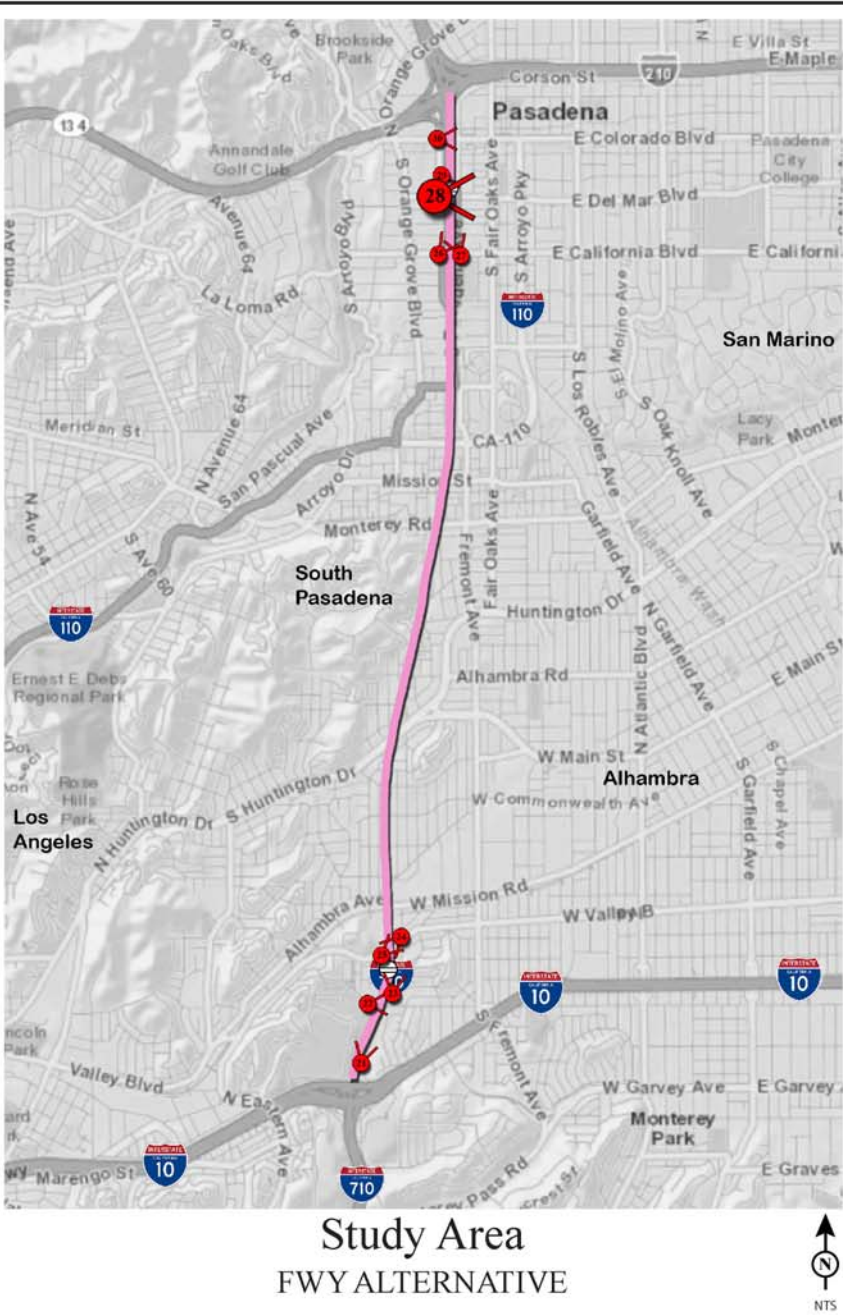
Visual Simulation: Proposed Bridge Replacement at Del Mar Blvd.

KEY VIEW 28-FWY

334-356 W. Del Mar Blvd
City of Pasadena, CA 91105

GPS Location:
Latitude = 34° 8'26.72"N
Longitude = 118° 9'21.75"W
Heading = 89° E

The location of Key View 28-FWY was taken from the street median along Del Mar Boulevard. The view looks east towards the proposed Del Mar Boulevard bridge replacement.



SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00.00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-62 KEY VIEW 28-FWY DESCRIPTION

SR 710 North Study
Key View 28-FWY Description
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

Key View 29-FWY (Figures 8-63 and 8-64)

ORIENTATION

As shown in Figure 8-63, the proposed north entrance for the SR 710 tunnel is just north of Del Mar Boulevard. The existing setting and visual simulation for Key View 29-FWY are shown in Figure 8-64.

EXISTING VISUAL QUALITY

The location of Key View 29-FWY is on the I-710 stub just north of the Del Mar Boulevard overpass bridge. The existing visual quality of this view is moderate (3.8).

	Rating	Comments
Vividness (V)	4.0	The existing vividness is moderate – the tall grouping of mature trees on the west side of SR 710 offers a memorable focal point for the viewer.
Intactness (I)	3.5	The existing intactness is moderately low – the tall light poles on the Del Mar Boulevard overpass bridge and the construction trailers and concrete barriers in the median of the freeway are items that distract from the view.
Unity (U)	4.0	The existing unity is moderate – the linear forms of the freeway lanes, fencing, and roadside landscaping provide strong patterns including a lower left to middle visual flow for this view.
Existing Visual Quality (E) ([V+I+U]/3)	3.8	

PROPOSED PROJECT FEATURES

At this location, the I-710 stub would be widened to accommodate the creation of lanes going into the tunnel and the lanes exiting onto Del Mar Boulevard.

CHANGE TO VISUAL QUALITY

Currently, the west side of the I-710 stub is a grassed slope with large shade trees at the top. Under the alternative, this slope would be re-graded, and the existing trees would be removed to accommodate the road widening. The loss of trees atop the ROW slope would result in a negative impact with less vividness and intactness. The unity would remain close to the same. The change in visual quality resulting from the Build Alternative would be minor.

Key View 29-FWY - Visual Quality for Freeway Tunnel Alternative

	Rating	Comments
Vividness (V)	3.5	The vividness would be moderately low – the existing trees would be removed for the re-alignment of Saint John Avenue. The area under the overpass and beyond would be filled. Any memorable elements would be minimized or eliminated.
Intactness (I)	3.0	The intactness would be moderately low – the removal of the existing trees and the addition of the tunnel entrances would emphasize the man-made features exclusively in this view.
Unity (U)	4.0	The unity would be moderate – although all man-made, the view would contain strong lines from the grassed slope, the overpass, and the tunnel entrances. The visual flow of the existing view would be minimized and superseded by strong horizontal lines.
Proposed Built Alternative Visual Quality (P) ($[V+I+U]/3$)	3.5	

Change in Visual Quality (Freeway Tunnel Alternative)	-0.3
--	------

RESOURCE CHANGE

There would be minor change to visual quality. Change in visual character would have good compatibility (2.0) with the existing view. The existing character of the freeway would be reinforced by the Built Project. The view of the portals is well balanced. The visual resources change would be low (0.9).

VIEWER RESPONSE

The SR 710 northern terminus handles a high volume of vehicular traffic traveling south toward the Pasadena downtown exits. Viewer groups would include freeway motorists. Viewer exposure would be moderately low and viewer sensitivity would be low. Overall viewer response would be low (2.0).

RESULTING VISUAL IMPACT

Under the alternative, the visual impact in Key View 29-FWY would be low (1.4). The Built Project would create a higher profile along this section of SR 710. Visual resource change would be low, and viewer response would be low.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
29-FWY	Freeway	0.9	2.0	1.4

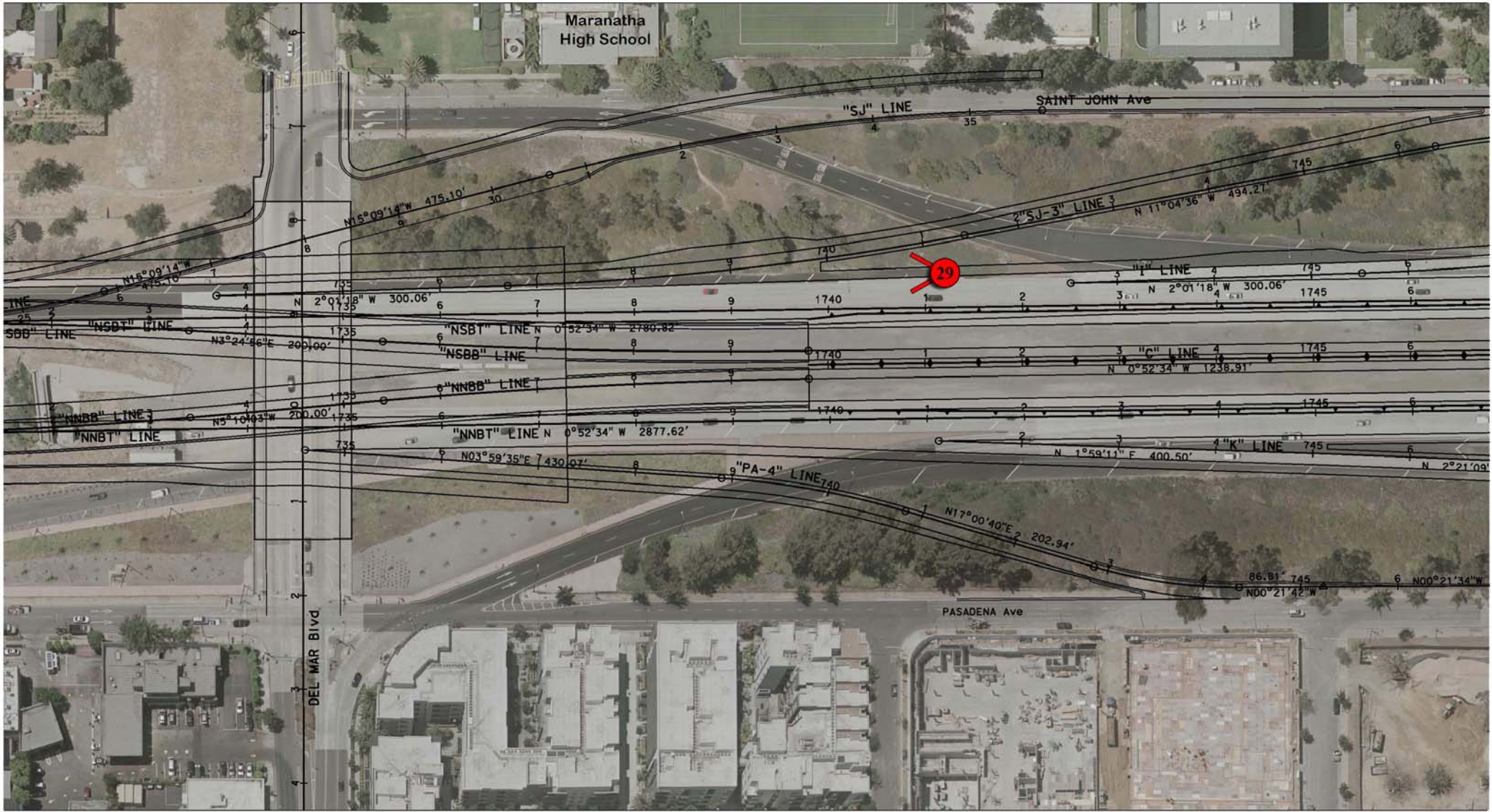
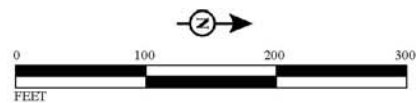


FIGURE 8-63



LEGEND

- Freeway (FWY) Tunnel Alignment
- Walls
- Concrete Barriers

- Proposed Roadway/Freeway
- Proposed Grading
- FWY KV Locations

SR 710 North Study
Key View 29-FWY Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-63 KEY VIEW 29-FWY LOCATION



Existing Condition



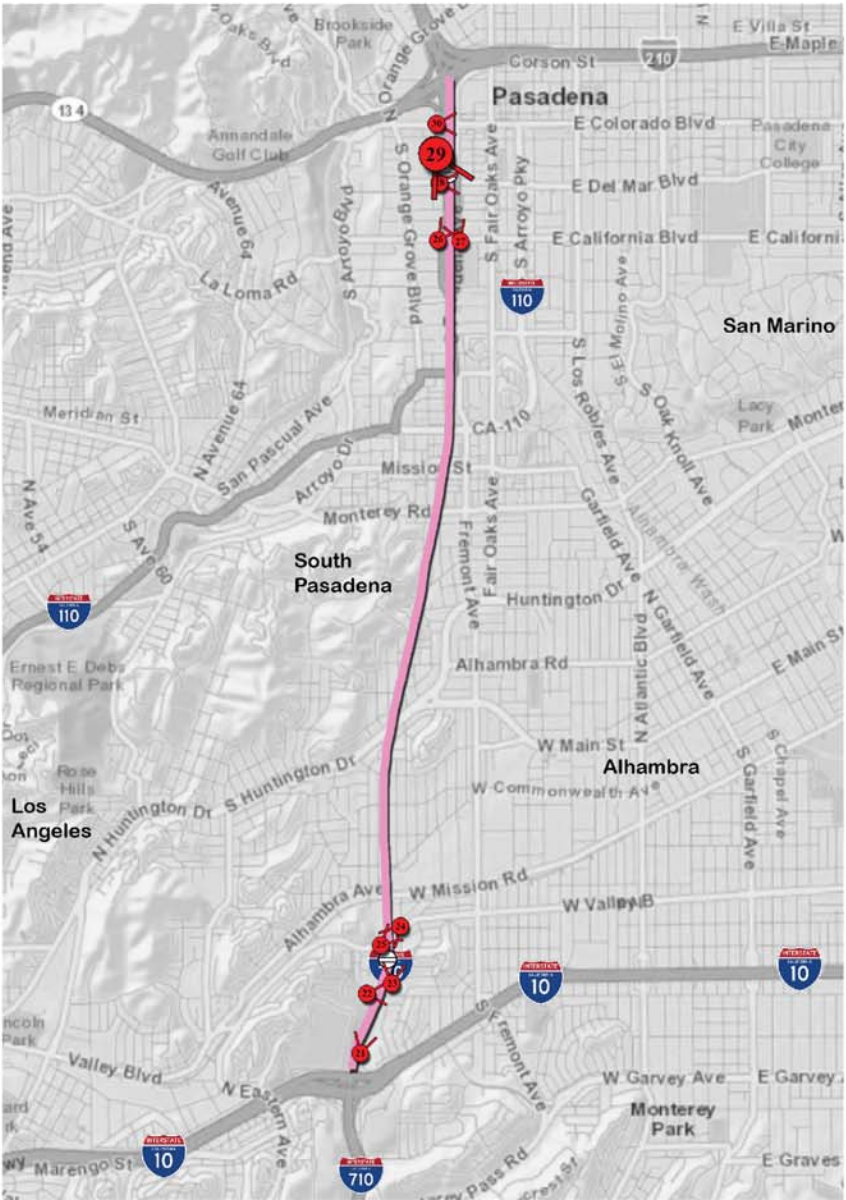
Visual Simulation: Proposed northern portal.

KEY VIEW 29-FWY

SR-710 Southbound Freeway North of Der Mar Blvd Bridge
City of Pasadena, CA 91123

GPS Location:
Latitude = 34°8'31.64"N
Longitude = 118° 9'19'.09"W
Heading = 177° S

The location of Key View 29-FWY was taken from the SR-710 Southbound freeway approximately 450 feet north of the Del Mar Boulevard bridge. The view looks south towards the proposed northern portal.



Study Area
FWY ALTERNATIVE

LEGEND

LEGEND

- | | | | |
|--|-------------------------------|--|-------------|
| | FWY Tunnel Alternative | | Freeways |
| | FWY Tunnel Portals | | Major Roads |
| | FWY Tunnel Key View Locations | | Local Roads |

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-64 KEY VIEW 29-FWY DESCRIPTION

FIGURE 8-64

SR 710 North Study
Key View 29-FWY Description
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

Key View 30-FWY (Figures 8-65 and 8-66)

ORIENTATION

As shown in Figure 8-65, the bridge over the SR 710 stub leads into downtown Pasadena. The existing setting and visual simulation for Key View 30-FWY are shown in Figure 8-66.

EXISTING VISUAL QUALITY

The location of Key View 30-FWY is on the western side of the Colorado Boulevard bridge overpass of the SR 710 northern terminus. The existing visual quality of this view is moderately low (3.5).

	Rating	Comments
Vividness (V)	3.0	The existing vividness is moderately low – the overpass bridge leads across the SR 710 northern terminus toward businesses in downtown Pasadena and creates no strong visual accents.
Intactness (I)	3.5	The existing intactness is moderately low – a variety of buildings gradually builds to the taller buildings in the background. Additionally the traffic signals and lighting fixtures encroach into the view.
Unity (U)	4.0	The existing unity is moderate – the tree-lined boulevard frames the gradual progression of building forms leading into downtown Pasadena. These combine to delineate a view dominated by two strong visual masses: sky and street pavement.
Existing Visual Quality (E) ([V+I+U]/3)	3.5	

PROPOSED PROJECT FEATURES

At this location, a series six ventilation stacks for the northern portal can be seen. The largest of these structures is approximately 50 in height. Additionally the overpass would have new paving and striping.

CHANGE TO VISUAL QUALITY

Currently, the west side of Colorado Boulevard consists of businesses and the Norton Simon Museum. East of SR 710 is the downtown district of Old Pasadena. Under the alternative, the overpass would not be widened. However, a set of six ventilation stacks serving the northern portal will be present. These stacks will be the predominantly visual element in this view due to their size and colors. Other visible features would include new paving and striping. The new ventilation stacks, paving and striping would result in an increase in vividness. Intactness would be lower due to the encroachment of additional construction elements. Unity would increase with the additions of the ventilation stacks. The change in visual quality resulting from the Build Alternative would be medium.

Key View 30-FWY - Visual Quality for Freeway Tunnel Alternative

	Rating	Comments
Vividness (V)	6.0	The vividness would be high – the new ventilation stacks would add a predominant visual element to this view. This element would be very memorable. Also the new paving and striping improve the look for this entrance into Old Town Pasadena. Additionally, the new bridge railings add additional focus points for the viewer.
Intactness (I)	2.5	The intactness would be low – the addition of the ventilation stacks which are approximately 50 in height would create visual intrusions into this view..
Unity (U)	5.0	The unity would be moderately high – the new ventilation stacks located on both sides of Colorado Boulevard would create a visual flow which follows the perspective lines toward Old Town Pasadena and the new paving striping improve the look for this entrance into Old Town Pasadena. With the introduction of the ventilation stacks contributing to the visual flow toward the center of the view, unity increases.
Proposed Built Alternative Visual Quality (E) ($[V+I+U]/3$)	4.5	

Change in Visual Quality (Freeway Tunnel Alternative)	+1.0
--	------

RESOURCE CHANGE

There would be medium change to visual quality. Change in visual character would have good compatibility (2.0) with the existing view. The Built Project would create an interesting, colorful entrance to the area. The view of the portals is well balanced with harmonious repetition. The visual resource change would be moderate (1.5).

VIEWER RESPONSE

Viewer groups include commercial motorists and pedestrians. Viewer sensitivity to the new ventilation stacks, paving and striping along Colorado Boulevard would be moderately high. The stack structures form a memorable visual element. However, due to the width of the overpass, viewer exposure to SR 710 would be limited to pedestrians on the overpass sidewalks or bus passengers with a high vantage point. Overall viewer response would be moderately high.

RESULTING VISUAL IMPACT

Under the alternative, the visual impact in Key View 30-FWY would be moderate (3.3). The ventilation stacks for the northern portal, new paving, and striping on this section of the boulevard would result in an increase in vividness. Intactness would decrease due to the added visual encroachments. Unity would increase with the visual flow in the direction of Old Town being reinforced by the new stacks. Visual character would have good compatibility with the existing view. Visual character would be moderate, and viewer response would be moderately high.

Key View #	Assessment Unit	Resource Change	Viewer Response	Visual Impact
30-FWY	Commercial	1.5	5.0	3.3

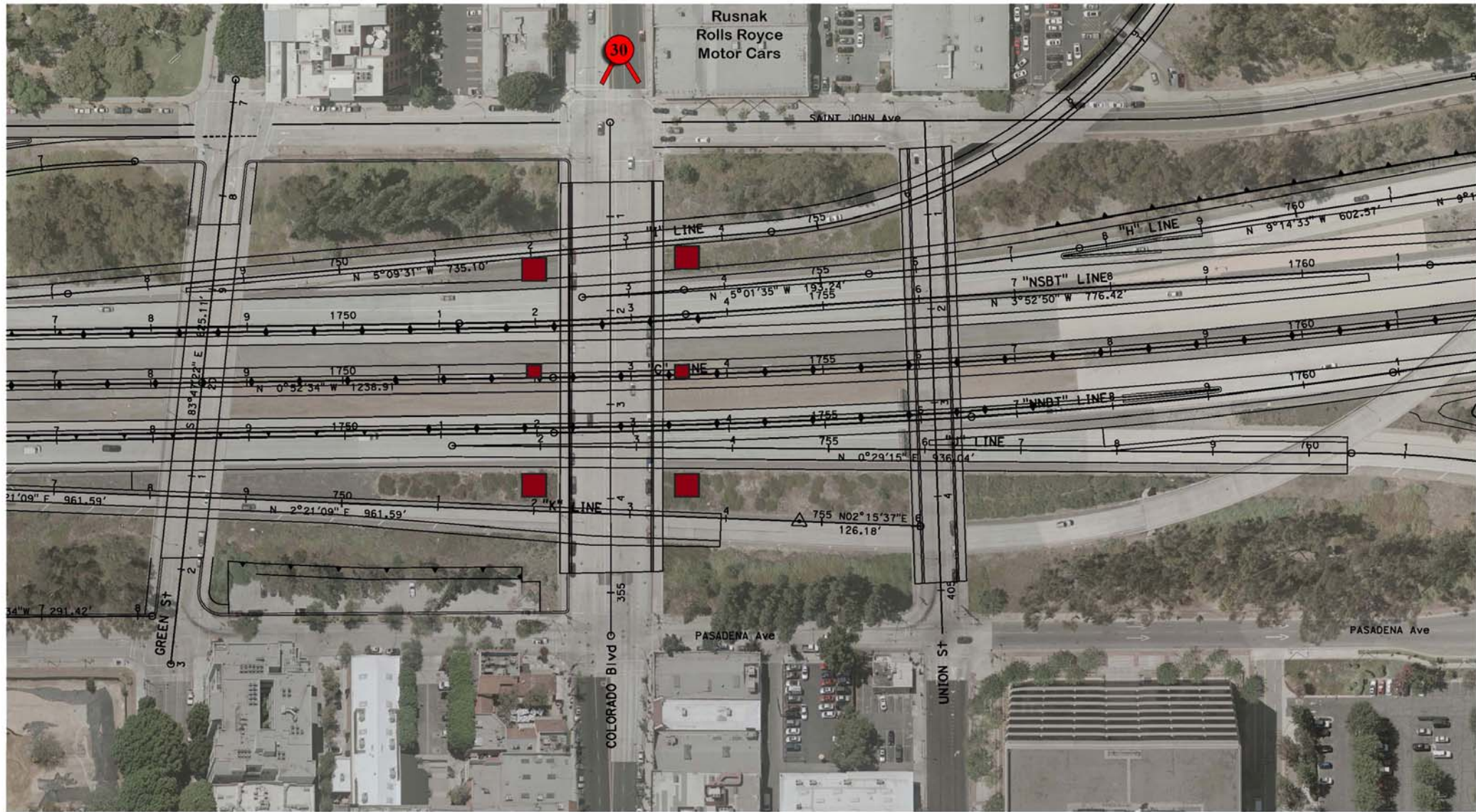
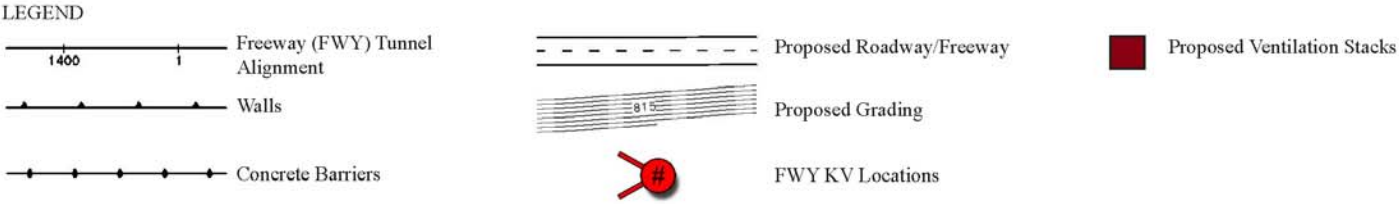
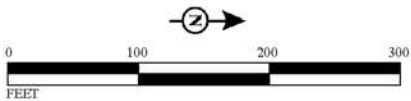


FIGURE 8-65



SR 710 North Study
Key View 30-FWY Location
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-65 KEY VIEW 30-FWY LOCATION



Existing Condition



Visual Simulation: Proposed View at W. Colorado Blvd.

KEY VIEW 30-FWY

282-288 W. Colorado Boulevard
City of Pasadena, CA 91103

GPS Location:
Latitude = 34° 8'44.73"N
Longitude = 118° 9'22.54"W
Heading = 89° E

The location of Key View 30-FWY was taken from the street median along W. Colorado Boulevard. The view looks east towards the western side of Colorado Boulevard bridge over-pass of the SR 710 northern terminus. Visible new features would include a series six ventilation stacks for northern portal, new paving and new striping.

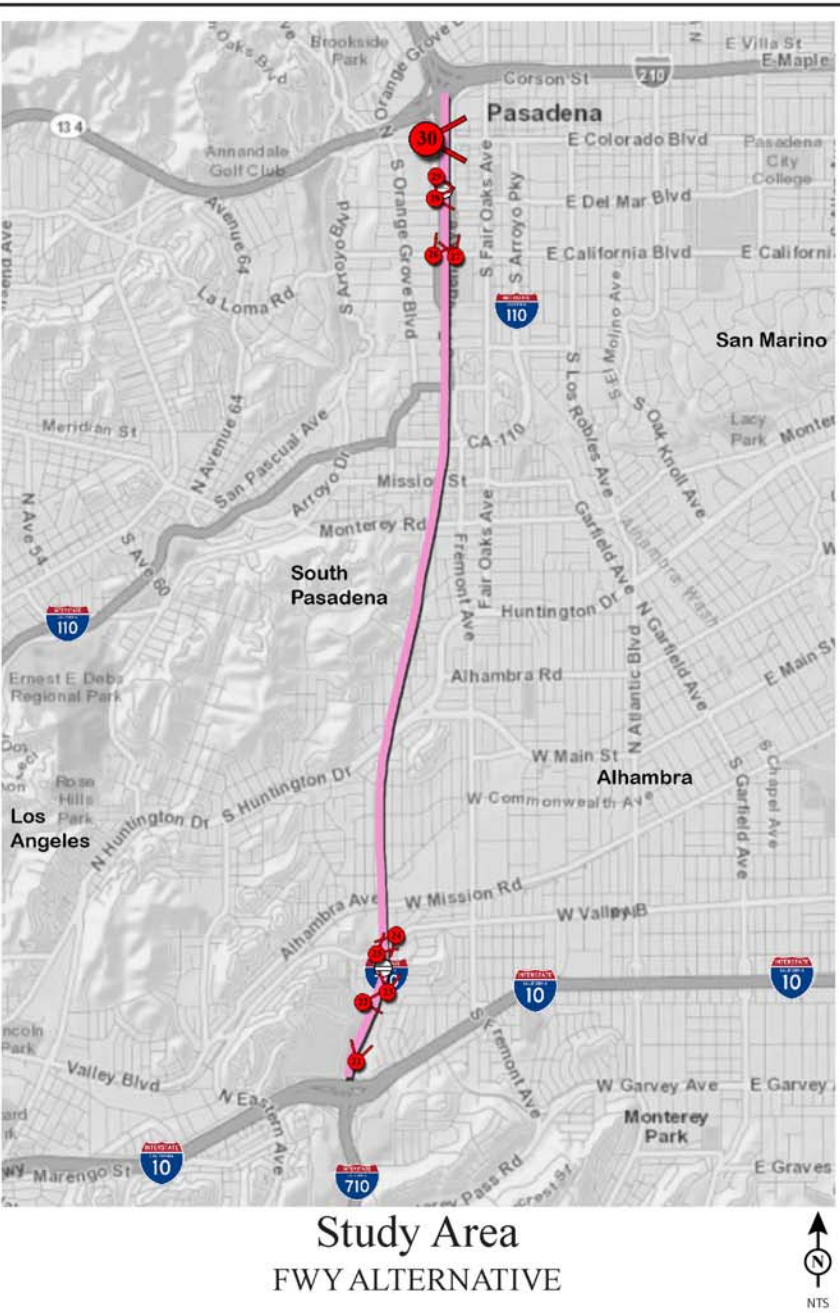
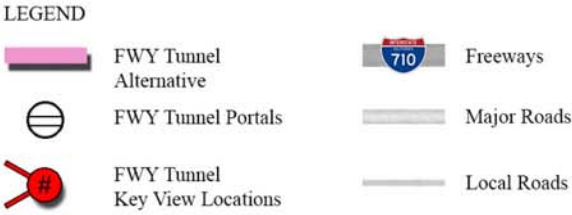


FIGURE 8-66



SOURCE: TATSUMI AND PARTNERS, INC. (2013)
P:\2011755.00-00-710 Study_TAP\RENDERINGS\KEY VIEW BOOKLET\FIGURE 8-66 KEY VIEW 30-FWY DESCRIPTION

C. Summary of Visual Impacts by Alternative**1. Temporary Construction Impacts**

In terms of severity of impacts, short term impacts are those which can be neutralized immediately upon completion of construction activities. Long term impacts are those impacts that take longer to achieve full neutralization or are a permanent part of the Build Alternatives. Short term impacts would include the construction activity (i.e., construction equipment and materials, temporary roadside barriers, construction signage, and removal of existing mature plantings). Long term impacts for the Build Alternatives would include the amount of time it would take for the new plantings to achieve full growth or the addition of permanent aesthetic treatments to structures and/or the addition of completely new structures. These might include but not be limited to new stations, plazas, signage and bus stops. Examples of these new facilities are illustrated in a subsequent section. New structures can add immediate and permanent visual neutralization to selected areas. New plantings can reasonably be expected to reach mature growth within a one to three year period (depending on the species and initial planting size). Some tree species could take longer to reach mature growth.

No Build Alternative

The No Build Alternative does not include the construction of any of the improvements in the SR 710 North Study Build Alternatives and, as a result, would not result in any short-term adverse visual effects. However, the No Build Alternative does include projects/planned improvements through 2035 that are included in the Federal Transportation Improvement Program (FTIP), as listed in the Southern California Association of Governments (SCAG) 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), Measure R, and the funded part of the Los Angeles Metropolitan Transportation Authority's (Metro) 2009 Long Range Transportation Plan (LRTP). It is possible that the construction of those improvements could result in adverse short-term visual effects that would be analyzed and mitigated, if needed, as each of those projects/improvements is advanced for implementation.

Build Alternatives

Short term visual impacts would occur to viewer groups during the construction period. Those effects would include views of demolition of existing structures; removal of existing mature vegetation; grading of cut-fill slopes; construction of tunnel, bridge, and road structures; construction vehicles; construction staging areas; temporary roadside barriers; and construction lighting and signage. The adverse effects of vegetation clearing would gradually cease over time as landscaping for the SR 710 North Study matures. New plantings can reasonably be expected to reach mature growth within a 1- to 3-year period (depending on the species and initial planting size). Some tree species could take longer to reach mature growth.

TSM/TDM Alternative

The TSM/TDM Alternative would have adverse short-term temporary impacts due to construction activities. A low visual impact would occur for the duration of the construction work. However, these adverse visual impacts related to construction activities would cease after completion of construction.

BRT Alternative

The BRT Alternative would have adverse short-term temporary impacts due to construction activities. A low to moderate visual impact would occur for the duration of the construction work. However, these adverse visual impacts related to construction activities would cease after completion of construction.

LRT Alternative

The LRT Alternative would have adverse short-term temporary impacts due to construction activities. A moderate to moderately high visual impact would occur for the duration of the construction work. However, these adverse visual impacts related to construction activities would cease after completion of construction.

Freeway Tunnel Alternative

The Freeway Tunnel Alternative would have moderate to moderately high adverse short-term temporary impacts due to construction activities. It is anticipated that the construction activities would include numerous heavy construction activities including the expected use of Tunnel Boring Machines (TBM), staging areas, materials storage areas, the construction sites themselves and material movement corridors. Many, if not all of these activities take place at or below grade making these activities create lesser visual impacts from the surrounding areas at the same view plane. If seen from a higher elevation, visual impacts would be greater; and if seen from a lower elevation, such visual impacts would be lesser.

While these construction activities may create other environmental impacts such as noise and dust pollution, all of the visual impacts may be lessened by various screening techniques, including vegetative screening. Temporary landforming (such as temporary berms with landscape planting) to filter construction views would work toward lessening visual impacts. Temporary structural screening techniques may also be used in concert with vegetation. These could include the use of mesh structures with vines. However, it should be noted that the implementation of these screening techniques may themselves create their own visual impacts. These will be investigated in subsequent phases of the project development.

Since the construction of the tunnel is anticipated to take close to five years, neutralization of any adverse visual impacts created during the construction of the tunnel should also be considered. Temporary or permanent planting of trees, creation of berms, and even construction of temporary screening walls could be viable options to screen the construction of the tunnel.

2. Permanent Visual Impact Evaluation

No Build Alternative

The No Build Alternative does not include the construction of any of the improvements in the SR 710 North Study Build Alternatives and, as a result, would not result in any adverse permanent visual effects. However, the No Build Alternative does include projects/planned improvements through 2035 that are included in the FTIP, as listed in

the SCAG 2012 RTP/SCS, Measure R, and the funded part of Metro's 2009 LRTP. It is possible that the operation of those improvements could result in permanent adverse visual effects that would be analyzed and mitigated, if needed, as each of those projects/improvements is advanced for implementation.

Build Alternatives

Figures 8-67, 8-69 and 8-71 compare existing visual quality to the visual quality resulting from the Build Alternatives. No table was prepared for the TSM/TDM Alternative as there would be no changes to show – the TSM/TDM Alternative would not create any visual impact. The bar graphs illustrate how much the visual quality would either improve or decrease. When the Build Alternative's Visual Quality bar is shown to be higher than the bar for the Existing Visual Quality's bar, then the assessment for the Build Alternative at that Key View has determined that the visual quality improves at the Key View location for that Build Alternative. When the Build Alternative's Visual Quality bar is shown to be lower than the bar for the Existing Visual Quality's bar, then the assessment for the Build Alternative at that Key View has determined that the visual quality decreases at the Key View location for that Build Alternative.

Figure 8-68, 8-70, and 8-72 summarize visual resource change, viewer response, and visual impact for each key view. Visual resource change is the average of both visual character compatibility and visual quality change, either of which can have negative value for reduced quality or incompatible character change. Visual quality change was measured on a scale from -7.0 to 7, and visual character compatibility was measured on a scale from -3.0 to 3.0. Therefore, the average resource change scale ranges from -5.0 to 5.0 where 0 is no change, 1.0 is low change, 2.0 is moderately low change, 3.0 is moderate change, 4.0 is moderately high change, and 5.0 is high change. Resource change for the LRT Alternative ranged from -2.0 to 1.6, low to moderately low including some views with very little change. Resource change for the Freeway Tunnel Alternative ranged from -0.9 to 1.5, low to moderately low.

Viewer response is the average of viewer sensitivity and exposure which were measured on a scale from 0.0 to 7.0, no response to very high response, and therefore is not a negative measurement, although the response could be construed as negative when resource changes are negative. Viewer response was given a negative value for graphic and evaluation purposes when the key view resource change was negative. Viewer response for the LRT Alternative ranged from 2.0 to 5.5, low to high. Viewer response for the Freeway Tunnel Alternative ranged from 2.0 to 5.0, low to moderately high.

Visual impact combines viewer response and visual resource change. Since visual resource change can be negative or positive, the absolute value was average with the viewer response which always has a positive value on a scale from 0.0 to 7.0. It would be possible for a visual impact to be high even if resource change is positive because viewer response would be high even if positive. Visual impact was given a negative value for graphic purposes when the key view resource change was negative. This negative value assignment was used to assign views with negative resource change priority over key views with positive resource change for avoidance, minimization, and concealment strategies. Visual impact for the LRT Alternative ranged from -3.0 to 3.3, moderately low. Visual impact for the Freeway Tunnel Alternative ranged from -2.4 to 3.3, moderately low to moderate.

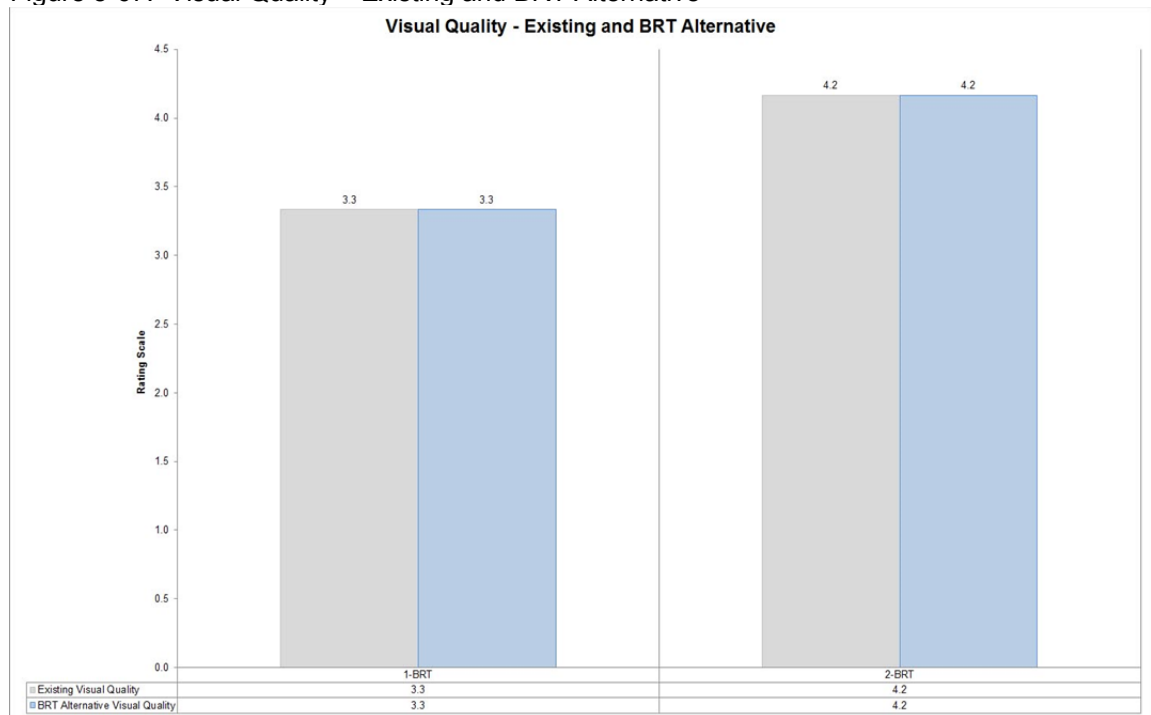
TSM/TDM Alternative

This Build Alternative mainly involves minor improvements to existing roads and intersections without substantive changes in physical facilities or views to/from those improvements. As a result, there would only be minor physical changes or visible impacts to the environment and to the Key Views. In addition, due to the low-profile (ground-level) nature of these improvements and the low perspective of potential viewers, the TSM/TDM Alternative would not result in adverse permanent visual impacts.

BRT Alternative

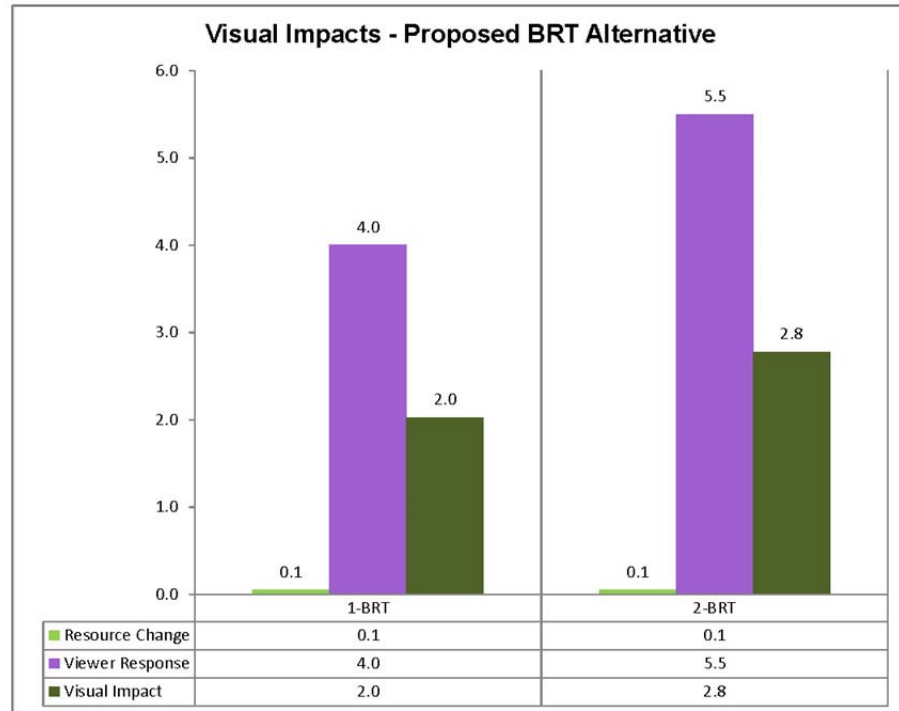
Landscape units in the BRT Alternative include Commercial and Residential. Viewer groups include Commercial and Residential pedestrians and motorists. Figure 8-67 compares existing visual quality to the visual quality resulting from the BRT Alternative. Visual quality for the existing views was moderately low, and the visual quality after the end of construction for the BRT would be moderately low as well. No change in visual quality would be apparent. Figure 8-68 shows the BRT Alternative resource change, viewer response, and visual impact. Resource change for the BRT Alternative was low, 0.1 or less. Viewer response for the BRT Alternative ranged from 4.0 to 5.5, moderate to high. Visual impact for the BRT Alternative ranged from 2.0 to 2.8, moderately low to moderate. For detailed descriptions of changes and impacts, see Key View-1 and Key View-2.

Figure 8-67: Visual Quality – Existing and BRT Alternative



Source: Tatsumi and Partners, Inc. (2014)

Figure 8-68: Visual Impact – BRT Alternative



Viewer Response: 0.0 = no change, 1.0 = very low, 2.0 = low, 3.0 = moderately low, 4.0 = moderate, 5.0 = moderately high, 6.0 = high, 7.0 = very high

Visual Resource Change: -5.0 = high negative change, -4.0 = moderately high negative change, -3.0 = moderate negative change, -2.0 = moderately low negative change, -1.0 = low negative change, 0.0 = no visible change, 1.0 = low positive change, 2.0 = moderately low positive change, 3.0 = moderate positive change, 4.0 = moderately high positive change, 5.0 = high positive change

Visual Impact: 0.0 = no impact, 1.0 = low impact, 2.0 = moderately low impact, 3.0 = moderate impact, 4.0 = moderately high impact, 5.0 = high impact

Source: Tatsumi and Partners, Inc. (2014)

LRT Alternative

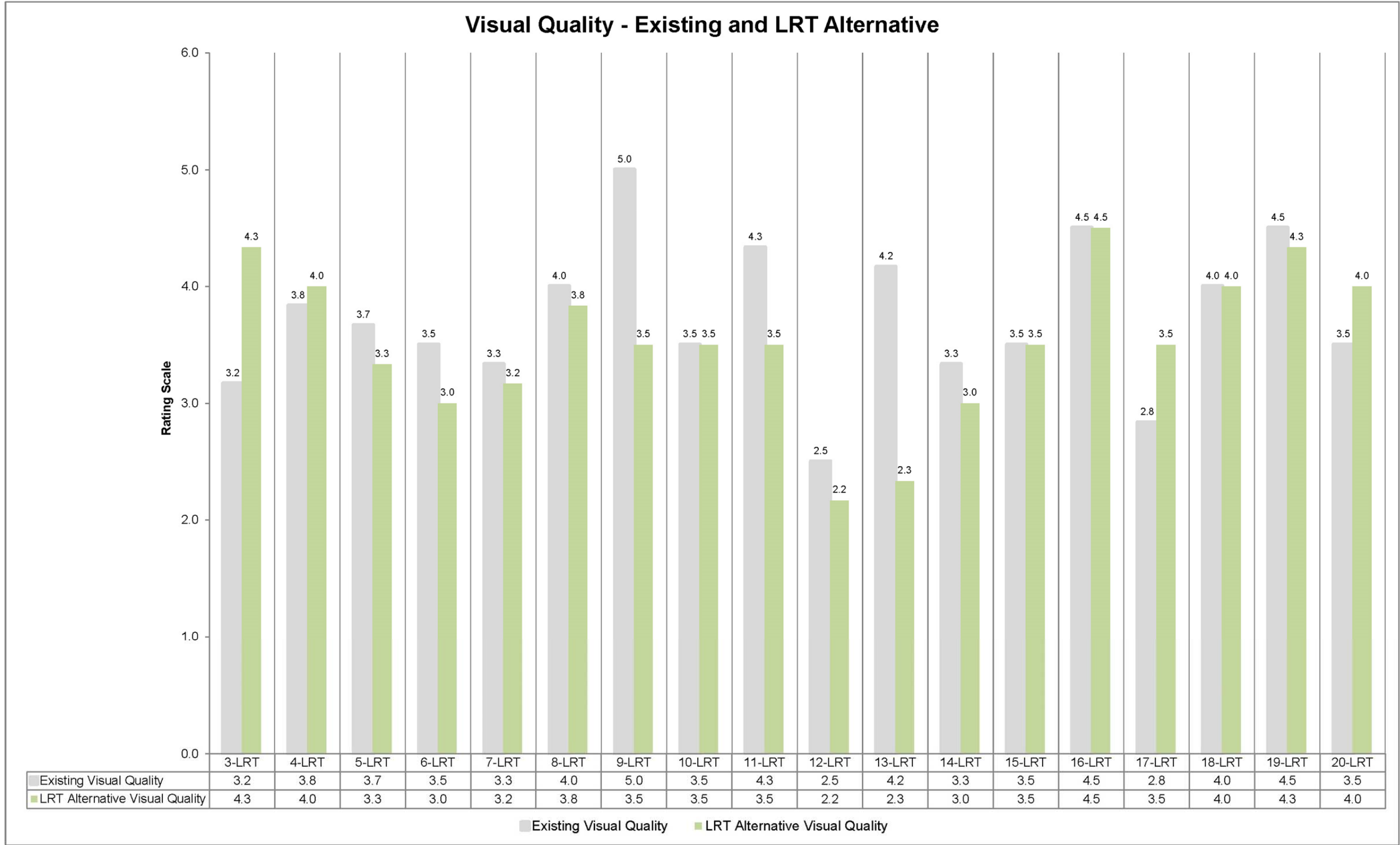
Landscape units in the LRT Alternative include Recreation, Commercial, Freeway, and Residential. Viewer groups include Recreation, Commercial, Freeway, and Residential pedestrians and motorists. Figure 8-69 shows visual quality for the LRT Alternative. Existing visual quality ranged from moderately low to moderately high. Visual quality after the Built Alternative would be low to moderately high. Visual quality change ranged from negative 1.9 to 1.1, moderately low to low. Character compatibility ranged from poor compatibility to moderately good compatibility depending on the Key View. Figure 8-70 shows the LRT Alternative resource change, viewer response, and visual impact. Resource change for the LRT Alternative ranged from -2.0 to 1.6, low to moderately low including some views with very little change. Viewer response for the LRT Alternative ranged from 2.0 to 5.5, low to high. Visual impact for the LRT Alternative ranged from -3.0 to 3.3, moderately low. For detailed descriptions of changes and impacts, see Key View-3 through Key View-20.

Freeway Tunnel Alternative

Landscape units in the Freeway Tunnel Alternative include Recreation, Commercial, Freeway, and Education. Viewer groups include Recreation, Commercial, Freeway, and Education pedestrians and motorists. Figure 8-71 shows visual quality for the Freeway Tunnel Alternative. Existing visual quality ranged from moderately low to moderate. After the Built Alternative, the visual quality would be moderately low to moderately high. Character compatibility ranged from poor compatibility to good compatibility depending on the Key View. Visual quality change ranged from -0.7 to 1.0, low change at the most.

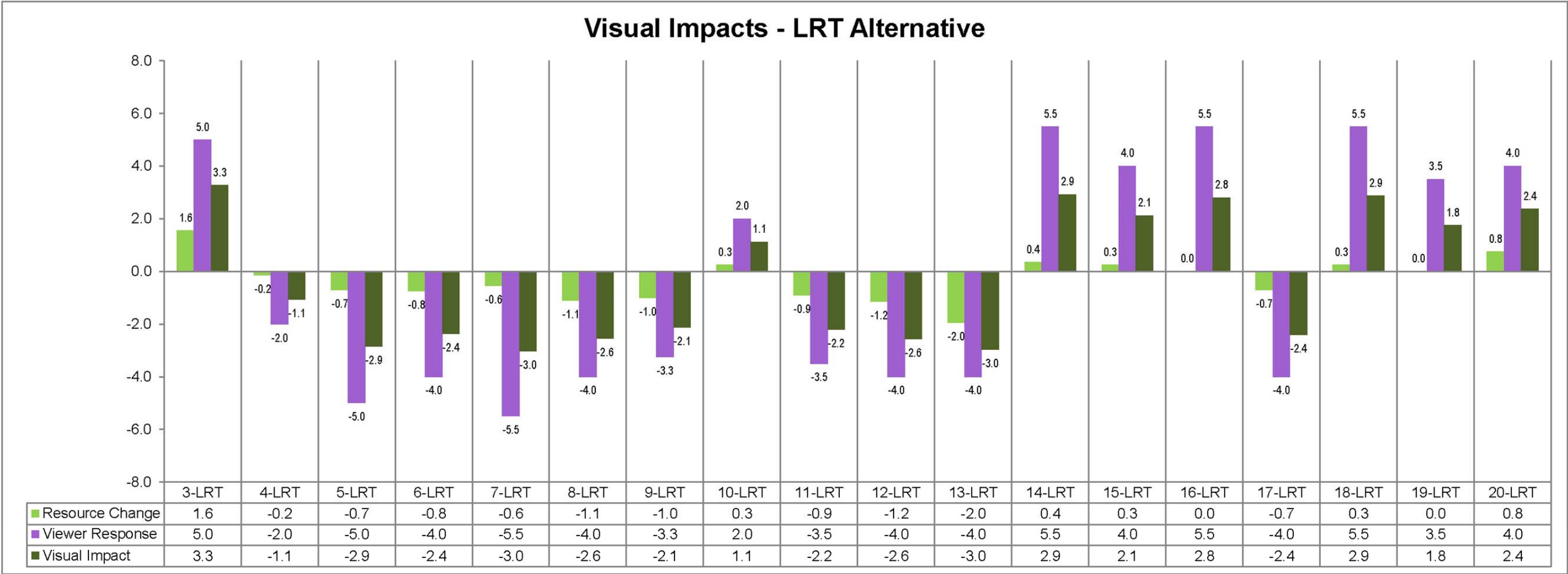
Figure 8-72 shows the Freeway Tunnel Alternative resource change, viewer response, and visual impact. Resource change for the Freeway Tunnel Alternative ranged from -0.9 to 1.5, low to moderately low. Viewer response for the Freeway Tunnel Alternative ranged from 2.0 to 5.0, low to moderately high. Visual impact for the Freeway Tunnel Alternative ranged from -2.4 to 3.3, moderately low to moderate. For more detailed descriptions, see analysis of Key View-21 through Key View-30.

Figure 8-69: Visual Quality – Existing and LRT Alternative



Visual Quality Rating: 1 = Very Low, 2 = Low, 3 = Moderately Low, 4 = Moderate, 5 = Moderately High, 6 = High, 7 = Very High
Source: Tatsumi and Partners, Inc. (2013)

Figure 8-70: Visual Impact –LRT Alternative



Viewer Response: 0.0 = no change, 1.0 = very low, 2.0 = low, 3.0 = moderately low, 4.0 = moderate, 5.0 = moderately high, 6.0 = high, 7.0 = very high

Visual Resource Change: -5.0 = high negative change, -4.0 = moderately high negative change, -3.0 = moderate negative change, -2.0 = moderately low negative change, -1.0 = low negative change, 0.0 = no visible change, 1.0 = low positive change, 2.0 = moderately low positive change, 3.0 = moderate positive change, 4.0 = moderately high positive change, 5.0 = high positive change

Visual Impact: 0.0 = no impact, 1.0 = low impact, 2.0 = moderately low impact, 3.0 = moderate impact, 4.0 = moderately high impact, 5.0 = high impact

Source: Tatsumi and Partners, Inc. (2014)

Figure 8-71: Visual Quality – Existing and Freeway Tunnel Alternative

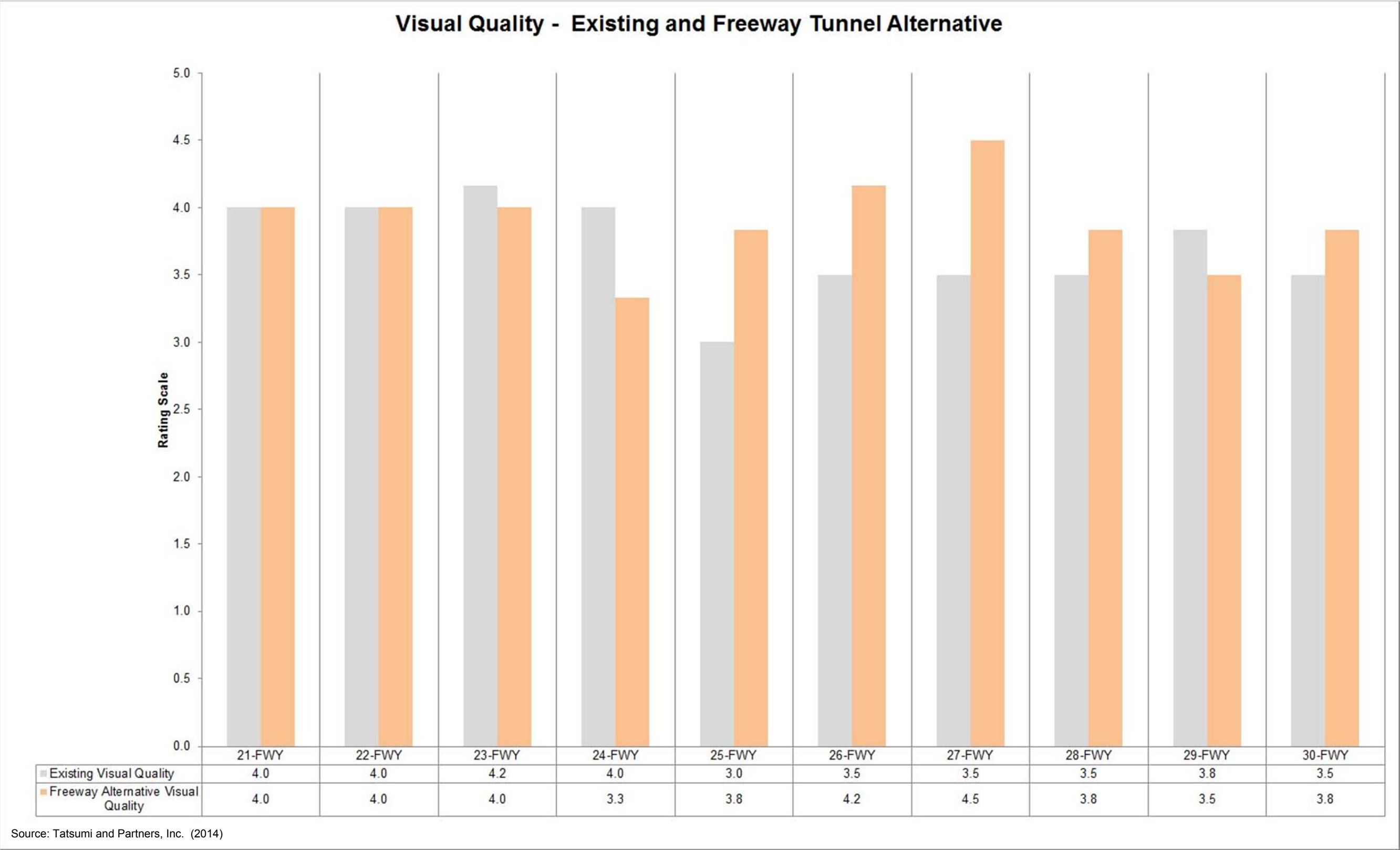
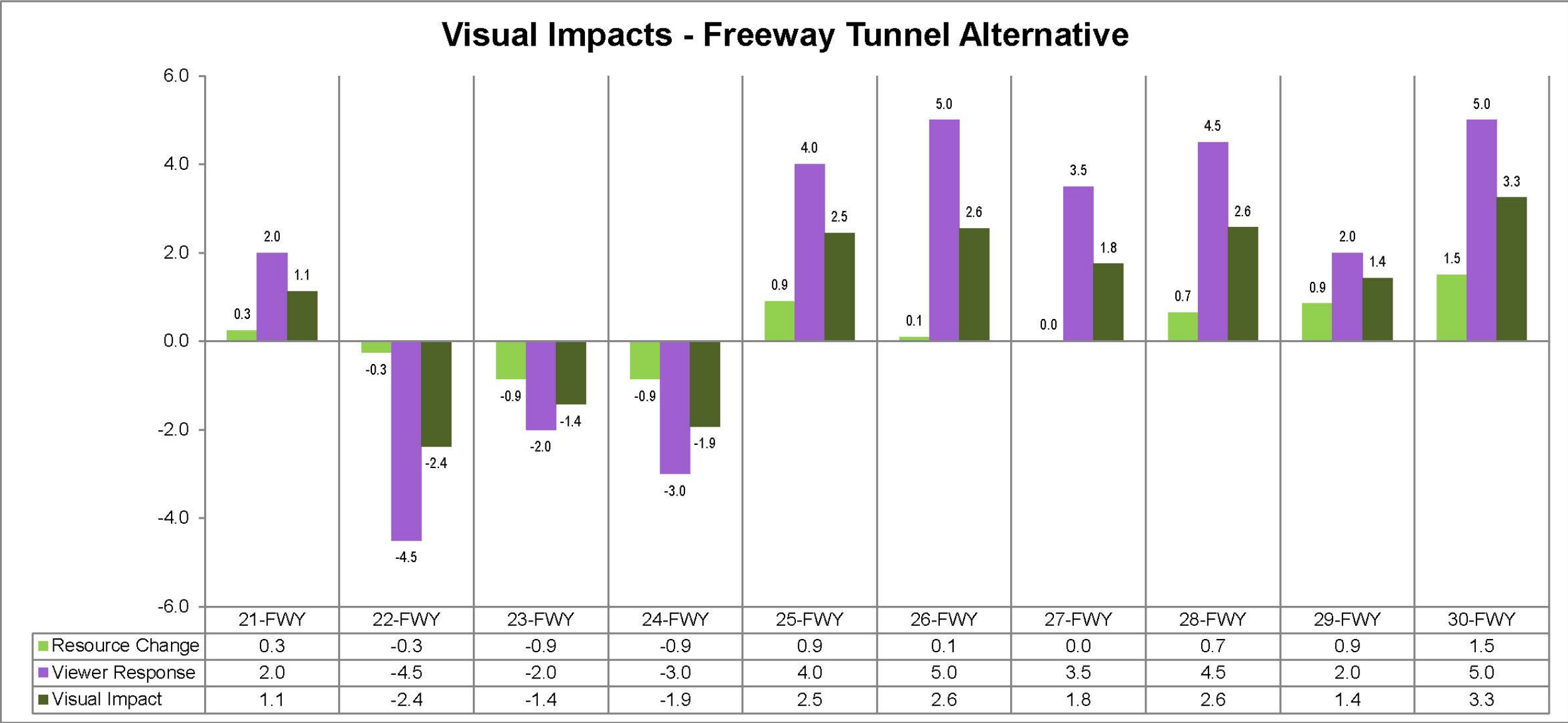


Figure 8-72: Visual Impact –Freeway Tunnel Alternative



Viewer Response: 0.0 = no change, 1.0 = very low, 2.0 = low, 3.0 = moderately low, 4.0 = moderate, 5.0 = moderately high, 6.0 = high, 7.0 = very high

Visual Resource Change: -5.0 = high negative change, -4.0 = moderately high negative change, -3.0 = moderate negative change, -2.0 = moderately low negative change, -1.0 = low negative change, 0.0 = no visible change, 1.0 = low positive change, 2.0 = moderately low positive change, 3.0 = moderate positive change, 4.0 = moderately high positive change, 5.0 = high positive change

Visual Impact: 0.0 = no impact, 1.0 = low impact, 2.0 = moderately low impact, 3.0 = moderate impact, 4.0 = moderately high impact, 5.0 = high impact

Source: Tatsumi and Partners, Inc. (2014)

3. Noise Barriers - Preliminary abatement measures proposed

Noise barriers have been proposed as preliminary noise abatement measures. These barriers may be optional and determined by public outreach response. Therefore, the barrier impacts were assessed separately from the Build Alternatives.

In general, these noise barriers would be out of scale with the neighboring residences and commercial businesses. They would entirely eliminate and/or partially obscure views and sunlight. In several cases, these barriers would replace residences' 5 to 6 foot tall wood or chainlink property line fences, or screening vegetation, with up to 20 foot tall concrete walls. These would be drastic changes in visual quality and character but for a relatively small number of viewers. However, these viewers would likely be highly responsive.

TSM/TDM Alternative

For proposed noise barriers for the TSM/TDM Alternative, visual impact would range from low to high impact. Visual impact would vary depending on the wall location, viewers affected, and barrier height. Taller walls will generally have a higher visual impact. Preliminary abatement measures proposed for the TSM/TDM Alternative include 7 TSM/TDM Noise Barrier (TNB); 2 for Local Street Improvement L-3, 1 for Local Street Improvement L-5, 2 for Other Road Improvement T-1, and 2 for Other Road Improvement T-2.

L3/TNB No. 1 would be an approximately 48-ft long barrier, ranging in height from 16 to 20 ft, along the perimeter of the private swimming pool area at the Atlantic Riviera Apartments located at 1417 South Atlantic Boulevard. L3/TNB No. 1 would be visible from the adjacent multifamily residences. Given that a noise barrier height approaching 16 or 20 ft may be considered, there would be a moderate to moderately high visual impact to the multifamily residences. The taller the wall, the higher the impact would be.

L3/TNB No. 2 would be an approximately 46 ft long barrier, with a height ranging from 6 to 20 ft, along the private property line of 1721 South Atlantic Boulevard. L3/TNB No. 2 would be visible from the adjacent single-family residences. Given that a noise barrier height approaching 20 ft may be considered, there would be a moderate to high visual impact to the single-family residences.

L5/TNB No. 1 would be an approximately 202 ft long barrier, ranging in height of 6 to 14 ft, along the private property line of the single-family residence at 3955 Rosemead Boulevard. L5/TNB No. 1 would be visible from the adjacent single-family residences and the surrounding commercial properties. Given that a noise barrier height approaching 14 ft may be considered, there would be a moderately high visual impact to the single-family residences and a low impact to neighboring commercial properties.

T1/TNB No. 1 would be an approximately 1,247 ft long barrier, with a height of 8 ft, along the Caltrans Right-of-way/private property line along the northbound side of I-710 south of Valley Boulevard. T1/TNB No. 1 would be visible from the adjacent single-family residences along Westmont Drive. Given that a noise barrier height would be 8 ft, and the view of I-710 from the residences is currently shielded by vegetation, there would be a moderate to high visual impact to the single-family residences.

T1/TNB No. 2 would be an approximately 963 ft long barrier along the edge of shoulder on the southbound side of I-710 south of Valley Boulevard and would range in height

from 16 to 20 ft. Given the distance of the single-family residences along southbound I-710, these barriers would not be highly visible. Therefore, the visual impact to the single-family residences would be low.

T-2/TNB No. 1 would be an approximately 743-foot (ft) long sound barrier, with a height ranging from 6 to 16 ft, along the northbound side of State Route 110 (SR 110) along the State ROW and the private property line. T-2/TNB No. 2 would be an approximately 963 ft long barrier, with a height ranging from 16 to 20 ft, located on the west side of SR 110 along the State ROW and the edge of State Street. T-2/TNB Nos. 1 and 2 would be visible from multifamily residential units along West State Street and from SR 110. Given that a noise barrier height approaching 16 or 20 ft may be considered, there would be a moderately high visual impact to the multifamily residences.

BRT Alternative

The operation of the BRT Alternative would not result in any permanent adverse visual impacts except for the addition of the noise barriers which would cause moderate to moderately high visual impact for several local residences and viewers from the streets. Visual impact would vary depending on the wall location, viewers affected, and barrier height. Taller walls will generally have a higher visual impact.

The preliminary noise barriers proposed for the BRT Alternative are BRT Noise Barriers (BNB) No. 1, No. 3, and No.5. BNB No. 1 would be a 340 ft long barrier, with a height ranging from 10 to 18 ft, along the private property line of the multifamily use along Atlantic Boulevard and De La Fuente Street. BNB No. 3 would be a 623 ft long barrier, with a height ranging from 6 to 20 ft, within the private property line of the residences along Atlantic Boulevard and De La Fuente Street. BNB Nos. 1 and 3 would be visible from adjacent multifamily residences along South Atlantic Boulevard. Given that a noise barrier height approaching 20 ft may be considered, there would be a moderate to moderately high visual impact to the multifamily residences depending on the height of the barrier. The barrier would block views and light to first story landscapes and windows and potentially block views for upper story windows where the taller sections of the wall would be located.

BNB No. 5 would be a 623 ft long barrier, with a height ranging from 6 to 10 ft, along the private property line at the northeast corner of Atlantic Boulevard and San Marino Avenue. BNB No. 5 would be visible from the adjacent single-family residences along Atlantic Boulevard. Given that BNB No. 5 is only feasible and reasonable up to 10 ft, there would be a moderately high visual impact to the single-family residences nearby.

LRT Alternative

Permanent impacts to the visual resources resulting from the LRT Alternative are described within the evaluation of Key Views 3-LRT through 20-LRT. The height of the noise barriers would range from 4.0 to 9.6 ft. The barriers will be placed along the edge of the track. The visual impact to these key view areas would be low to moderate.

Freeway Tunnel Alternative

Permanent impacts to the visual resources resulting from the Freeway Tunnel Alternative are described within the evaluation of Key Views 21-FWY through 30-FWY. Visual impact to key views ranged from moderately low to moderate. Following is a brief discussion of

the visual impacts from the construction of the proposed noise barriers. Visual impacts caused by noise barriers would range from moderate to high depending on the wall location, height, and affected viewer group.

Preliminary noise barriers proposed for the Freeway Tunnel Alternative dual-bore and single-bore design variations are Freeway Tunnel Noise Barrier (FTNB) Nos. 5, 8, and 10. Additional preliminary noise barriers proposed only for the dual-bore design variation are FTNB Nos. 6D and 9.

FTNB No. 5 would be a 1,801 ft long barrier, with a height ranging from 6 to 20 ft, located along State ROW and the private property line of multiple single-family residences along Charnwood Avenue and Westmont Drive. FTNB No. 5 would be visible from residences (some of which have existing 6 ft high wood fences) along SR 710. There would be a moderately low to moderately high visual impact to the single-family residences based on the height of the wall. The taller the wall, the greater the impact would be.

FNTB 6D would be a 1,404 ft long, with a height of 14 ft for the dual bore alternative, FNTB No. 8 would be a 406 ft long barrier, with a height ranging from 6 to 14 ft. These walls would be along the Caltrans ROW/private property line on the west side of I-710 south of Valley Boulevard, shielding multiple single-family homes along Highbury Avenue. These barriers would be visible from the adjacent single-family residences along Highbury Avenue. Given that the noise barrier heights could approach between 12 ft and 16 ft, there would be a moderate to moderately high visual impact to the single-family residences depending on the relative height of the wall.

FNTB No. 10 would be a 1,207 ft long barrier, with a height ranging from 10 to 20 ft, along the Caltrans ROW/private property line for the single bore alternative and a height of 10 ft as well as a height ranging from 14 to 20 ft for the dual bore alternative were analyzed at the northeast quadrant of the I-210 and SR 134 interchange shielding multiple single-family homes along Orange Grove Place and Cypress Avenue. FNTB No. 10 would be visible from the adjacent single-family residences. Given that a noise barrier height approaching 20 ft may be considered, there would be a moderately high to high visual impact to the single-family residences.

FTNB No. 9 would be an 84 ft long barrier, with a height ranging from 6 to 14 ft, located within the private property line of the commercial property at the corner of Pasadena Avenue and Colorado Boulevard. FTNB No. 9 for the Freeway Tunnel Alternative dual-bore design variation would be visible around the restaurant at the corner of Pasadena Avenue and Colorado Boulevard. Given that a noise barrier height approaching 14 ft could be considered, which would reduce the visibility of the commercial business to motorists traveling along Colorado Boulevard, there would be a moderate impact to viewers outside the restaurant, and a high visual impact to those inside the restaurant.

4. Light, Glare, Shade and Shadow

Light

This Section visits the issue of changes in levels of light along the four Build Alternatives: Freeway, BRT, LRT and TSM/TDM. For this discussion, light is defined as the level of brightness a viewer sees without actually seeing the light source. For example, at a

baseball stadium at night, the spectators can observe the field because there is light directed at the field.

In the TSM/TDM alternative, it is anticipated that new signage, traffic lights, new traffic lanes and new roads would create minimal increased lighting into current business and residential areas. Additionally lighting fixtures can be fitted with shields to minimize light spillage into these areas.

The BRT alternative would increase the lighting to areas along the travel routes. However the overall impact of these lighting changes would be absorbed by existing traffic lights and dependent upon the schedule of the buses themselves. It is anticipated that with night time schedules of the buses being less, the overall impact to the surrounding areas would be less during the late night hours.

In the LRT Alternative, traffic light fixtures installed onto the elevated LRT such as in Key Views 3-LRT, 4-LRT, 5-LRT, 6-LRT, 7-LRT, 8-LRT, and 10-LRT would add increased night lighting to some neighborhoods. The effects of this new light can be lessened to some degree by utilizing light control appliances on the light fixtures.

With the construction of the proposed tunnel and the associated freeways, existing land uses found along the proposed Project's study area would not experience an elevated level of night lighting at locations where the SR 710 would be extended. This is because the related construction will be at different elevations with the surrounding land uses. With the headlights of automobiles traveling at a horizontal line of sight, it is anticipated that light from this source would not impact the surrounding communities. New light fixtures necessary for this alternative would be placed at a distance from the surrounding neighborhoods. With light intensity being inversely proportional to distance, the resulting light would not have an impact to the closest community. However this conclusion would be best addressed upon final location and lumens of the light fixtures in the alternative.

Glare

Glare is the discomfort a viewer experiences when seeing a bright light source such as automobile headlights or light fixtures. Using the previous example of the baseball stadium at night, glare would be the view of the light source the players in the field may see if the light fixtures were low and in their field of vision. This is the reason sports lighting is elevated well above the stadium.

Glare impacts associated with TSM/TDM would be very low. Any possible changes in the timing and duration of the traffic control cycles would not noticeably create or lessen glare, but possibly change the cycles of the lighting during peak or low traffic times. The addition of travel lanes associated with this alternative is anticipated to have little glare impact since the volume of traffic is managed and routed during peak travel hours and lessens later at night. Glare from new automotive traffic on new roads would be dissipated by means of distance from source to viewer.

Glare impacts associated with the BRT alternative would be very low as this alternative does not add any additional lighting. Additional bus stops are anticipated to have shielded lighting to direct glare away from surrounding neighborhoods. While this alternative would widen the flow of traffic for a bus lane, there would not be any additional buses creating more glare, so the change in glare would be minimal.

Glare from the elevated portions of the LRT alternative is expected to be minimized by the construction of various screen devices and by distance of the viewer from the LTR vehicles. Glare spillage will be further minimized by the adaption of light shields onto new light fixtures.

New portions of the Freeway Tunnel Alternative would be built below the existing grade level leading to a tunnel where vehicle headlight glare would be very minimal. While precise levels of glare and spillage cannot be measured until the final design and location of the light fixtures, glare harnessing devices can minimize spillage into the nearby communities. (See Key Views 22-FWY, 23-FWY and 26-FWY.

Shade and Shadows

Shades and shadows may have an impact on the surrounding communities and is discussed in this section.

It is anticipated that the TSM/TDM alternative would not impact shade and shadowing as it manages traffic flow by systematically programming and monitoring traffic, by accommodating traffic with new lanes in existing streets and new roads. Since all improvements in this alternative are either changes in management, the reconfiguration of existing streets or the addition of two new roads, it is anticipated that there will be no source of new shade or shadows.

The BRT alternative would create minimal change to shade and shadows. The widening of the roadway for the bus lane would only shift existing utilities at some locations, thereby not adding nor decreasing the amount of shade and shadows, just shifting the locations of where the shade and shadows occur (as in Key Views 1-BRT and 2-BRT). New bus stops and signage, due to their small vertical profile, may contribute a small amount of new shade and shadow to the immediately surrounding areas. This would affect a very small area and would likely not impact any nearby businesses or homes.

During early morning and late evening hours where the sun is low to the horizon and especially during the winter solar declination seasons (September through March), the elevated LRT would create some shade and/or shadows along the project study area. The acute angle of the sun relative to the ground plain would create "longer" shadows during the morning, evening, and winter time. However, due to the elevated LRT's narrow width and thin profile, the shadows cast upon the neighborhood would be minimal and short in duration. The shade/shadows created by the project would have a low impact on the neighborhoods shown in Key Views 3-LRT, 5-LRT, 6-LRT, 7-LRT, 8-LRT, 12-LRT, and 13-LRT. In addition, the wall along the Shorb Street neighborhood as shown in Key View 14-LRT would cast afternoon shadows on the residents' backyards for a duration of less than two hours. Less than two hours of shade would be a low impact considering the day length in this area is between 10 hours and 14 hours depending on the season.

Since the majority of the Freeway Tunnel Alternative is below grade or in a valley, it would cast shade and shadows only along the shoulder of the roadway and not create shade or shadows on homes or buildings. Pending final engineering of this alternative, shade and shadows from any new light fixtures, soundwalls, and other structures will be evaluated.

D. Summary of Visual Impacts by Landscape Assessment UnitImpact to Residential Landscape Unit

Changes to Key Views in residential landscape units tended to have a moderate visual impact as shown in Table 8-2. If resource changes were negative, impacts were recorded as negative as well. Whether negative or positive visual resource change, impacts would be moderate because of high viewer response. Viewers in residential units had the highest viewer response since they are close to the views, potentially view them for long durations, have strong local attachment values, and are likely to be highly aware of changes to their home environments. Visual resource change in residential units ranged from -0.6 to 0.4, staying within the low change range. Viewer response ranged from 5.0 to 5.5, moderately high to high.

Table 8-2: Visual Impacts for Residential Landscape Unit Key Views

Key View #	Visual Assessment Unit	Visual Impact Rating	Visual Impact
7-LRT	Residential, Commercial	-3.0	M
16-LRT	Residential, Commercial	2.8	M
18-LRT	Residential, Commercial	2.9	M
14-LRT	Residential	2.9	M
2-BRT	Residential, Commercial	2.8	M

Source: Tatsumi and Partners (2014)

Impact to Recreation Landscape Unit

Changes to Key Views in recreation landscape units tended to have a moderate visual impact as shown in Table 8-3. One recreation view also included commercial characteristics. Viewer response was 5.0, moderately high. Visual resource change ranged from -0.7 to 1.6, low to moderately low. Key Views with negative resource change were recorded as negative impact. Impact for the recreation unit in the Freeway Tunnel Alternative was 2.6, moderate. Impact for the recreation unit in the LRT Alternative ranged from -2.9 to 3.3, moderate.

Table 8-3: Visual Impacts for Recreation Landscape Unit Key Views

Key View #	Visual Assessment Unit	Visual Impact Rating	Visual Impact
26-FWY	Recreation	2.6	M
5-LRT	Recreation	-2.9	M
3-LRT	Recreation, Commercial	3.3	M

Source: Tatsumi and Partners (2014)

Impact to Education Landscape Unit

Changes to Key Views in education landscape units ranged from moderately low to moderate visual impact as shown in Table 8-4. One education view also included freeway characteristics. Viewer response was 3.5 to 4.5, moderate to moderately high. Visual resource change ranged from -0.9 to 0.7, low. Key Views with negative resource change were recorded as negative

impact. The impact in education units for the LRT unit was -2.2, moderately low. The impact for the Freeway Tunnel Alternative ranged from -2.4 to 2.6.

Table 8-4: Visual Impacts for Education Landscape Unit Key Views

Key View #	Visual Assessment Unit	Visual Impact Rating	Visual Impact
11-LRT	Education, Freeway	-2.2	ML
22-FWY	Education	-2.4	ML
28-FWY	Education	2.6	M

Source: Tatsumi and Partners (2014)

Impact to Commercial Landscape Unit

Changes to Key Views in commercial landscape units tended to have a moderately low to moderate visual impact regardless of the Build Alternative as shown in Table 8-5. Some commercial views also included residential, recreation, or freeway unit characteristics. Viewer response ranged from 3.0 to 5.0, moderately low to moderately high. Visual resource change ranged from -2.0 to 1.5. All of the negative resource changes in commercial units occurred in the LRT Alternative. Key Views with negative resource change were recorded as negative impact. Visual impact for the LRT alternative ranged from -3.0 to 3.3, and ranged from 1.8 to 3.3 for the Freeway Tunnel Alternative.

Table 8-5: Visual Impacts for Commercial Landscape Unit Key Views

Key View #	Visual Assessment Unit	Visual Impact Rating	Visual Impact
1-BRT	Commercial	2.0	ML
2-BRT	Residential, Commercial	2.8	M
6-LRT	Commercial	-2.4	ML
8-LRT	Commercial	-2.6	M
12-LRT	Commercial	-2.6	M
13-LRT	Commercial	-3.0	M
9-LRT	Freeway, Commercial	-2.1	ML
7-LRT	Residential, Commercial	-3.0	M
16-LRT	Residential, Commercial	2.8	M
18-LRT	Residential, Commercial	2.9	M
15-LRT	Commercial	2.1	ML
17-LRT	Commercial	2.1	ML
19-LRT	Commercial	1.8	ML
20-LRT	Commercial	2.4	ML
3-LRT	Recreation, Commercial	3.3	M
25-FWY	Commercial	2.5	M
27-FWY	Commercial	1.8	ML
30-FWY	Commercial	3.3	M

Source: Tatsumi and Partners (2014)

Impact to Freeway Landscape Unit

Changes to Key Views in freeway landscape units tended to have a low to moderately low visual impact as shown in Table 8-6. Some freeway views also included commercial or education unit characteristics. Viewer response ranged from 2.0 to 3.5, low to moderate. Visual resource change ranged from -2.2 to 0.9, low impact. Key Views with negative resource change were recorded as negative impact. Impact for the freeway unit in the LRT Alternative ranged from -2.2 moderately low to 1.1 low, and from -1.9 moderately low to 1.4 low for the Freeway Tunnel Alternative. Freeway units along either Alternative route would most likely experience a low to moderately low impact throughout the project area.

Table 8-6: Visual Impacts for Freeway Landscape Unit Key Views

Key View #	Visual Assessment Unit	Visual Impact Rating	Visual Impact
4-LRT	Freeway	-1.1	L
10-LRT	Freeway	1.1	L
9-LRT	Freeway, Commercial	-2.1	ML
11-LRT	Freeway, Education	-2.2	ML
24-FWY	Commercial, Freeway	-1.9	ML
23-FWY	Freeway	-1.4	L
21-FWY	Freeway	1.1	L
29-FWY	Freeway	1.4	L

Source: Tatsumi and Partners (2014)

IX. PROJECT VISUAL IMPACT SUMMARY

A. Key View Analysis Implications

Key view analysis results are representative of visual impacts for other similar areas throughout the project area. Areas with negative resource change would be more likely to illicit a negative response, so the impact and viewer response for areas with negative resource change was recorded as negative. Based on the key view analysis, views along the project area would likely experience a range from low to moderate visual impact for any Build Alternative. Figure 9-1 summarizes the visual impact rating for key views which is derived from viewer response as shown in figure 9-2 and visual resource change as shown in figure 9-3. The moderate impact in residential assessment units is in part due to the viewer groups being very actively engaged and involved in the home environment. Visual impacts could be either negative or positive based on visual resource change results. The resource change in key views ranged from -2.0 to 1.5, from no change to moderately low negative or positive change. The impacts due to negative resource change would be prioritized for avoidance, minimization, and/or concealment measures as described in the following chapter, *Chapter X. Project Visual Avoidance, Minimization, and/or Concealment Measures*.

B. Temporary Construction Impacts

No Build Alternative

The No Build Alternative does not include the construction of any of the improvements in the SR 710 North Study Build Alternatives and, as a result, would not result in any short-term adverse visual effects. However, the No Build Alternative does include projects/planned improvements through 2035 that are included in the Federal Transportation Improvement Program (FTIP), as listed in the Southern California Association of Governments (SCAG) 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), Measure R, and the funded part of the Los Angeles Metropolitan Transportation Authority's (Metro) 2009 Long Range Transportation Plan (LRTP). It is possible that the construction of those improvements could result in adverse short-term visual effects that would be analyzed and mitigated, if needed, as each of those projects/improvements is advanced for implementation.

Build Alternatives

Short term visual impacts would occur to viewer groups during the construction period. Those effects would include views of demolition of existing structures; removal of existing mature vegetation; grading of cut-fill slopes; construction of tunnel, bridge, and road structures; construction vehicles; construction staging areas; temporary roadside barriers; and construction lighting and signage. The adverse effects of vegetation clearing would gradually cease over time as landscaping for the SR 710 North Study matures. New plantings can reasonably be expected to reach mature growth within a 1- to 3-year period (depending on the species and initial planting size). Some tree species could take longer to reach mature growth.

TSM/TDM Alternative

The TSM/TDM Alternative would have adverse short-term temporary impacts due to construction activities. A visual quality impact would occur for the duration of the construction work. However, these adverse visual impacts related to construction activities would cease after completion of construction.

BRT Alternative

The BRT Alternative would have adverse short-term temporary impacts due to construction activities. A visual quality impact would occur for the duration of the construction work which is expected to be completed in 14 months. However, these adverse visual impacts related to construction activities would cease after completion of construction.

LRT Alternative

The LRT Alternative would have adverse short-term temporary impacts due to construction activities. A visual quality impact would occur for the duration of the construction work which is expected to be completed in 6 years. However, these adverse visual impacts related to construction activities would cease after completion of construction.

Freeway Tunnel Alternative

The Freeway Tunnel Alternative would have adverse short-term temporary impacts due to construction activities. It is anticipated that the construction activities would include numerous heavy construction including the expected use of Tunnel Boring Machines (TBM), staging areas, materials storage areas, the construction sites themselves and material movement corridors. Many, if not all of these activities take place at or below grade making these activities create lesser visual impacts from the surrounding areas at the same view plane. If seen from a higher elevation, visual impacts would be greater; and if seen from a lower elevation, such visual impacts would be lesser.

While these construction activities may create other environmental impacts such as noise and dust pollution, all of the visual impacts may be lessened by various screening techniques, including vegetative screening. Temporary landforming (such as temporary berms with landscape planting) to filter construction views would work toward lessening visual impacts. Temporary structural screening techniques may also be used in concert with vegetation. These could include the use of mesh structures with vines. However, it should be noted that the implementation of these screening techniques may themselves create their own visual impacts. These will be investigated in subsequent phases of the project development.

Since the construction of the tunnel is anticipated to take close to five years, neutralization of any adverse visual impacts created during the construction of the tunnel should also be considered. Temporary or permanent planting of trees, creation of berms, and even construction of temporary screening walls could be viable options to screen the construction of the tunnel.

C. Permanent Construction Impacts and Noise Barriers**No Build Alternative**

The No Build Alternative does not include the construction of any of the improvements in the SR 710 North Study Build Alternatives and, as a result, would not result in any adverse permanent visual effects. However, the No Build Alternative does include projects/planned improvements through 2035 that are included in the FTIP, as listed in the SCAG 2012 RTP/SCS, Measure R, and the funded part of Metro's 2009 LRTP. It is possible that the operation of those improvements could result in permanent adverse visual effects that would be analyzed and mitigated, if needed, as each of those projects/improvements is advanced for implementation.

Build Alternatives**TSM/TDM Alternative**

This Build Alternative mainly involves minor improvements to existing roads and intersections without substantive changes in physical facilities or views to/from those improvements. As a result, there would only be minor physical changes or visible impacts to the environment and to the Key Views. In addition, due to the low-profile (ground-level) nature of these improvements and the low perspective of potential viewers, the TSM/TDM Alternative without noise barriers would result in no adverse permanent visual impacts.

For preliminary noise barriers proposed for the TSM/TDM Alternative, visual impact would range from low to high impact. Visual impact would vary depending on the wall location, viewers affected, and barrier height. Taller walls, closer walls, and walls surrounding residences will generally have a higher visual impact than shorter walls, walls further from viewers, and walls in non-residential areas. Noise barrier L3/TNB No. 1 would cause a moderate to moderately high visual impact to the neighboring multifamily residences. Noise barrier L3/TNB No. 2 would cause a moderate to high visual impact to the neighboring single-family residences. Noise barrier L5/TNB No. 1 would cause a moderately high visual impact to the neighboring single-family residences and a low impact to neighboring commercial properties. Noise barrier T1/TNB No. 1 would cause a moderate to high visual impact to the single-family residences. Noise barrier T1/TNB No. 2 would cause a low visual impact to the nearby single-family residences. Noise barrier T-2/TNB No. 1 and T-2/TNB No. 2 would cause a moderately high visual impact to the multifamily residences.

BRT Alternative

The operation of the BRT Alternative would not result in permanent adverse visual impacts based on the key view analysis. Visual impact based on viewer response may be moderately low, but the resource change is very low and adds positively to visual quality and is compatible with the existing visual character.

However, the addition of the proposed noise barriers would cause moderate to moderately high visual impact for several local residents and viewers on the streets. Visual impact would vary depending on the barrier location, viewers affected, and barrier height. Taller walls will generally have a higher visual

impact. BNB No. 1 and BNB No. 3 would cause a moderate to moderately high visual impact to the neighboring multifamily residences depending on the height of the barrier. BNB No. 5 would cause a moderately high visual impact to the single-family residences nearby.

LRT Alternative

Permanent impacts to the visual resources resulting from the LRT Alternative are described within the evaluation of Key Views 3-LRT through 20-LRT. The visual impact to these key view areas would range from low to moderate. Noise barriers will be placed along the edge of the track and are shown in the key view renderings. The height of the noise barriers would range from 4.0 to 9.6 ft.

Freeway Tunnel Alternative

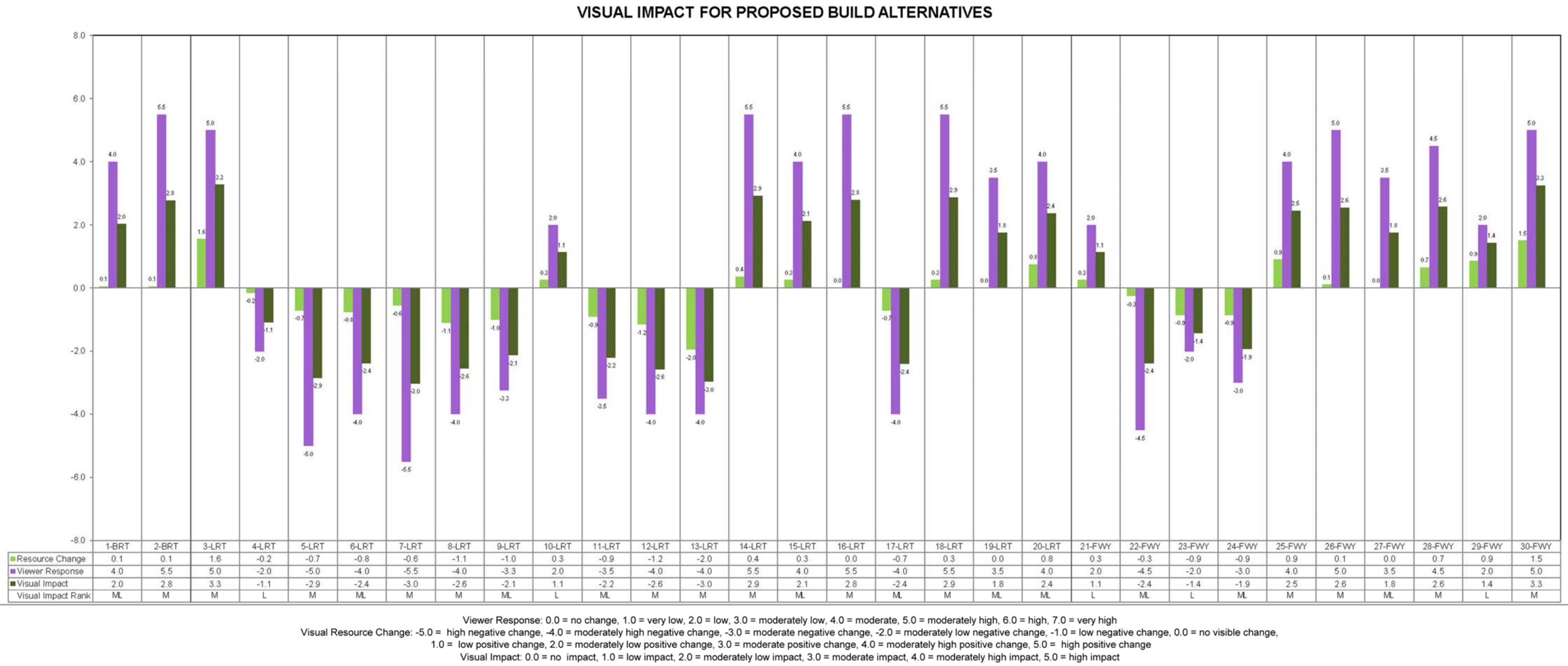
Permanent impacts to the visual resources resulting from the Freeway Tunnel Alternative are described within the evaluation of Key Views 21-FWY through 30-FWY. Visual impact to key views ranged from moderately low to moderate, so the visual impact of the Freeway Tunnel Alternative would likely range from low to moderate. However, visual impacts caused by preliminary noise barriers would range from moderate to high depending on the wall location, height, and affected viewer group.

Preliminary noise barriers have been proposed for the Freeway Tunnel Alternative dual-bore and single-bore design variations. FTNB No. 5 would cause a moderately low to moderately high visual impact to the single-family residences based on the height of the wall. FNTB 6D would and FNTB No. 8 would cause a moderate to moderately high visual impact to the single-family residences depending on the relative height of the wall. FNTB No. 10 would cause a moderately high to high visual impact to the single-family residences. FTNB No. 9 would cause a moderate visual impact to viewers outside the restaurant, and a high visual impact to those inside the restaurant.

D. Cumulative Impacts

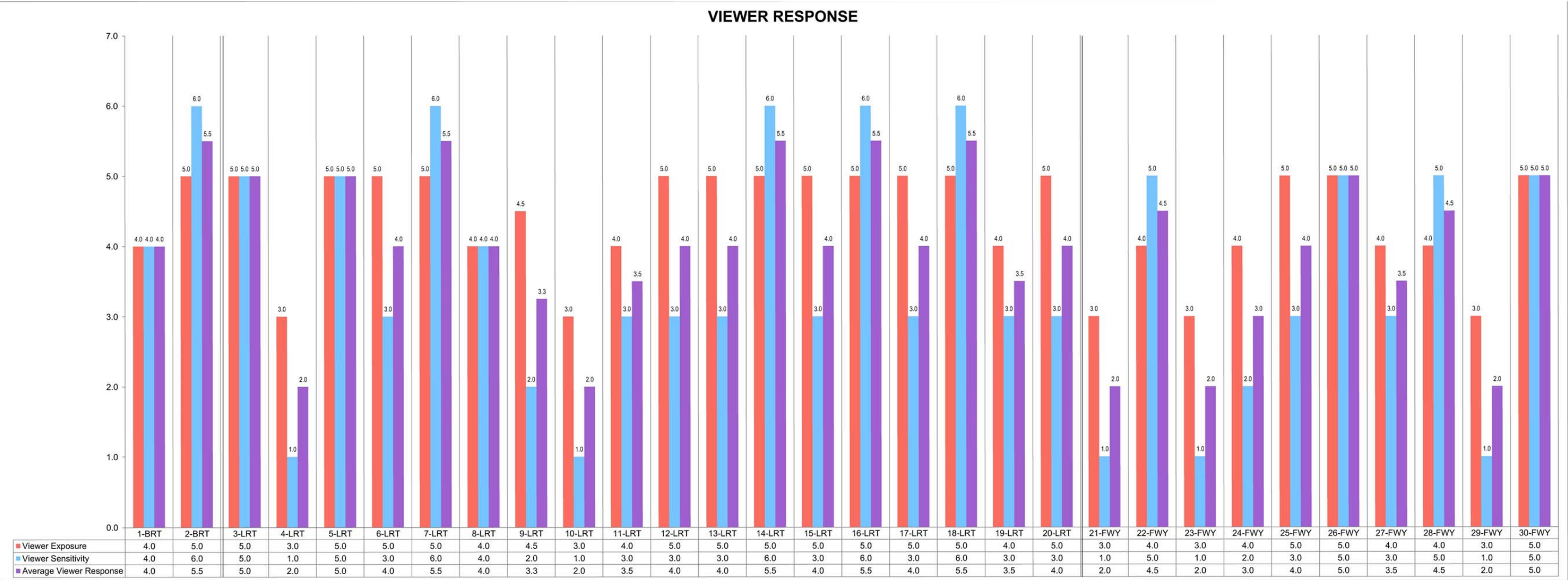
The Project Study Area is within an urbanized environment as described in *Chapter VI. Visual Environment of the Project Study Area*. Existing visual resources for key views are described in *Chapter VIII. Visual Impact Assessment*. Projects and planned improvements through 2035 are included in the Federal Transportation Improvement Program (FTIP), as listed in the Southern California Association of Governments (SCAG) 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), Measure R, and the funded part of the Los Angeles Metropolitan Transportation Authority's (Metro) 2009 Long Range Transportation Plan (LRTP). However, no other funded projects are currently slated for the current Project area. Therefore, there are no cumulative impacts to address for the foreseeable future outside of the current study.

Figure 9-1: Visual Resource Change, Average Viewer Response, and Visual Impact



Source: Tatsumi and Partners (2014)

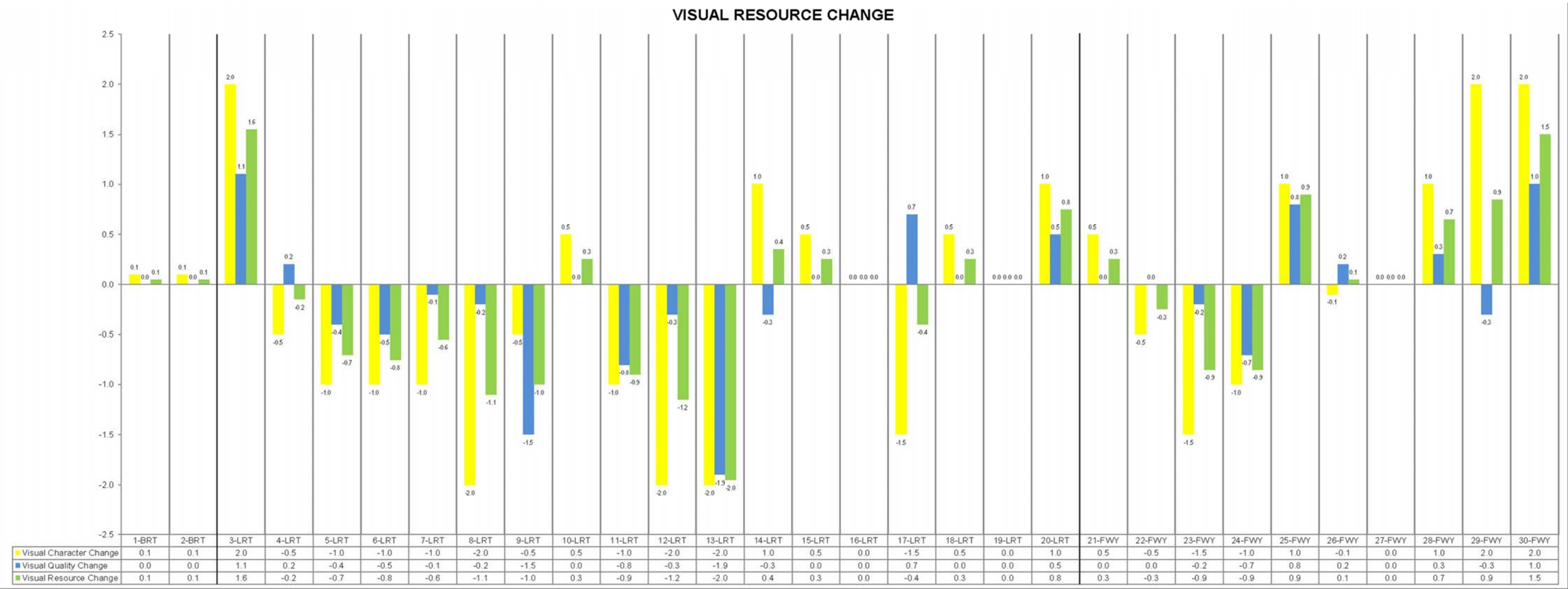
Figure 9-2: Viewer Response – All Key Views



0.0 = no response, 1.0 = very low, 2.0 = low, 3.0 = moderately low, 4.0 = moderate, 5.0 = moderately high, 6.0 = high, 7.0 = very high

Source: Tatsumi and Partners (2014)

Figure 9-3: Visual Character Change – All Key Views



Visual Character Change: -3.0 = very poor compatibility, -2.0 = poor compatibility, -1.0 = moderately poor compatibility, 0.0 = no visible change, 1.0 = moderately good compatibility, 2.0 = good compatibility, 3.0 = very good compatibility
Visual Quality Change is the difference between the existing visual quality of a key view and the projected visual quality after the Built Alternative would be constructed.
Visual Resource Change: (-5.0 = high negative change, -4.0 = moderately high negative change, -3.0 = moderate negative change, -2.0 = moderately low negative change, -1.0 = low negative change, 0.0 = no visible change, 1.0 = low positive change, 2.0 = moderately low positive change, 3.0 = moderate positive change, 4.0 = moderately high positive change, 5.0 = high positive change)

Source: Tatsumi and Partners (2014)

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X. VISUAL AVOIDANCE, MINIMIZATION, AND/OR CONCEALMENT MEASURES

Caltrans and the FHWA mandate that a qualitative/aesthetic approach should be taken to avoid, minimize and/or conceal visual quality loss associated with the Build Alternatives. This approach fulfills the letter and the spirit of FHWA requirements as it addresses the actual cumulative loss of visual quality that would occur within the viewshed of the Build Alternatives. It also constitutes measures that can more readily generate public acceptance of the proposed Project.

The visual impacts of a project are determined by assessing the change in visual resources, the change in visual character and visual quality due to the built project, and predicting viewer response to that change. Determining visual resource change involves assessing the visual compatibility of the Build Alternatives with existing resources. The viewer response is the average of the viewer's exposure and viewer's sensitivity to the project. The resulting level of visual impact is determined by combining the severity of resource change with the degree to which people are likely to be affected by the change.

The following are definitions of the levels of visual measures and their durations to achieve the required level of avoidance, minimization, or concealment as described in the Caltrans standard template for Visual Impact Assessments.

No – No adverse change to the existing visual resource or improved visual change to the existing visual resource. Does not require visual measures.

Low – Minor adverse change to the existing visual resource, with low viewer response to change in the visual environment. May or may not require visual measures.

Moderately Low – Low adverse change to the existing visual resource, with moderate viewer response, or moderate adverse change to visual resources with low viewer response. Impact can be neutralized upon completion of construction or within a few years with standard avoidance and minimization measures.

Moderate – Moderate adverse change to the visual resource with moderate viewer response. Impact can be neutralized within five years using standard practices.

Moderately High – Moderate adverse visual resource change with high viewer response or high adverse visual resource change with moderate viewer response. Extraordinary visual measures may be required. Landscape treatment required will generally take longer than five years to fully neutralize.

High – A high level of adverse change to the resource or a high level of viewer response to visual change such that architectural design and landscape treatment cannot neutralize the impacts. Viewer response level is high. An alternative project design may be required to avoid highly adverse impacts.

Table 10-1: Level of Visual Measures Required

Key View #	BRT Alternative						LRT Alternative						Freeway Tunnel Alternative					
	No	Low	Moderately Low	Moderate	Moderately High	High	No	Low	Moderately Low	Moderate	Moderately High	High	No	Low	Moderately Low	Moderate	Moderately High	High
1-BRT	X																	
2-BRT	X																	
3-LRT							X											
4-LRT								X										
5-LRT										X								
6-LRT									X									
7-LRT										X								
8-LRT										X								
9-LRT									X									
10-LRT							X											
11-LRT									X									
12-LRT										X								
13-LRT										X								
14-LRT							X											
15-LRT							X											
16-LRT							X											
17-LRT									X									
18-LRT							X											
19-LRT							X											
20-LRT							X											
21-FWY													X					
22-FWY															X			
23-FWY														X				
24-FWY															X			
25-FWY													X					
26-FWY													X					
27-FWY													X					
28-FWY													X					
29-FWY													X					
30-FWY													X					
Totals:	2	0	0	0	0	0	8	1	4	5	0	0	7	1	2	0	0	0

Source: Tatsumi and Partners, Inc. (2013)

Level of Visual Measures based on visual impact ratings: 0 to 1.4 = Low, 1.5 to 2.4 = Moderately Low, 2.5 to 3.4 = Moderate, 3.5 to 4.4 = Moderately High, 4.5 to 6.0 = High.

Visual measures for adverse project impacts addressed in the Key View assessments and summarized in Table 10-1 would consist of following the design recommendations in cooperation with the Caltrans District Landscape Architect.

Basic Concepts of Visual Impact Measures

This section describes the basic concepts to avoid, minimize and/or conceal visual impacts relative to Key Views based on the criteria defined by the FHWA which in turn serves as the basis for the all impact assessments. In Key Views where the ratings of any of these criteria is lowered in the Build Alternatives (creating negative visual impacts), the following measures address concepts which could be used to lessen the impacts of a specific criteria.

Vividness

- Add a single visual element into the Key View which would serve as the visual focal point – Example: Introduce a single specimen tree or a signature architectural feature in the Key View.
- Add screening to diminish distracting visual elements and increase the perception/value of another visual element – Example: Add landscaping and/or architectural components to screen distracting views of overhead utility lines which would increase the memorableness of an existing visual highlight.
- Add visual elements to lend additional focus to an existing accent visual element - Example: Add trees on both sides of the Key View to visually frame and emphasize an existing visual highlight in the middle of the view.

Intactness

- Add screening such as landscaping or architectural features to diminish the visual value of the objects which are intruding into the Key View – Example: Screen visually intruding power lines and support structures with landscaping to keep the view clear of distractions.
- Underground or relocate the encroaching elements – Example: If utility lines are visible in the Key View, consider relocating these lines or placing them underground.
- Disguise the intruding objects with architectural features, textures and/or colors – Example: If light fixtures or traffic signals are encroaching into the Key View, add architectural features onto these fixtures/signals which would allow these features to blend into the overall visual character of the Key View.

Unity

- Add screening such as landscaping or architectural features to minimize visual elements which distract from the visual flow of the Key View – Example: In the instance where the visual flow of the Key View is interrupted by a new structure or building, add screening elements to minimize the features of the new structures and maintain the overall visual flow.
- Emphasize visual elements which help balance the view into major masses of visual space – Example: In cases where new construction breaks the visual balance of the Key View, add other visual elements such as landscaping to minimize the impact of the new construction and maintain the balance of the view.
- Add repetitive elements into the view to introduce or strengthen visual patterns or rhymes of a Key View – Example: For Key Views which result in imbalance or fractured view masses, add repetitive elements such as bollards, street trees, flag poles or other features to visually tie the view together.

Character

- Apply aesthetic design treatments to architectural features to make the project more compatible with the existing visual character based on the existing form, line, color, scale, dominance, diversity, and continuity of the project area.
- Add visually compatible landscaping to soften and obscure visually incompatible features.

- In high impact areas with scale, continuity, and dominance incompatibility, redesign the project, if feasible.

Viewer Response

- Use public outreach and involvement strategies that address viewers' concerns, incorporate viewers' feedback into project design, and educate about the benefits of the project.
- High impact projects could be redesigned, if feasible, to relocate the project areas so that fewer viewers are impacted, views are less narrowly focused toward the project, and various viewer activities distract from the view and shorten viewer duration.

The above concepts may be implemented in a number of ways as noted in the examples. Specific implementation techniques may involve some of the following:

A. Walls with Aesthetic Treatments

Walls protect surrounding neighborhoods from the traffic noise and reduces noise levels in neighborhoods. The design of walls will follow the standards from the Highway Design Manual Standards and will take into consideration gathered community input. Aesthetic enhancements for the soundwalls should be incorporated into the final design of the proposed SR 710 North Project. Possible enhancements may include, but would not be limited to, using graphic patterns and colors based on input gathered from the local community, stakeholders, and Caltrans.

B. Built Structures

Project structures, such as buildings, columns, retaining walls, and tunnels, should be designed to either blend with or enhance the surrounding area. Design considerations such as placement, orientation, shape of structure, color and type of materials used, and addition of decorative features should be employed.

C. Landscaping

Planting vines on the walls or creating berms and planting trees for screening can be a concealment measure.

Incorporating Visual Impact Measures

Low visual impacts could be addressed with a few vines or shrubs and/or trees.

Moderately low visual impacts could be addressed with a higher concentration of vines or shrubs and trees and/or larger plant materials to mitigate impacts within five years. Additional modifications and/or aesthetic treatments may be incorporated into final designs with input from neighboring communities.

Moderate visual impacts could be addressed with a high concentration of vines or shrubs and trees and/or larger plant materials to mitigate impacts within five years. Additional modifications and/or aesthetic treatments may be incorporated into final designs with input from neighboring communities.

Moderately high visual impact needs might require a berm planted with ground cover, shrubs and trees. Additional architectural modifications and/or aesthetic treatments may be incorporated into final designs with input from neighboring communities.

High visual impact, as mentioned earlier, cannot be adequately addressed with architectural design or landscape planting. Redesign may need to be considered or allowances may need to be made for accepting

a lower visual quality based upon the greater needs of the built project and the limited alternatives available to construct it and apply adequate visual measures.

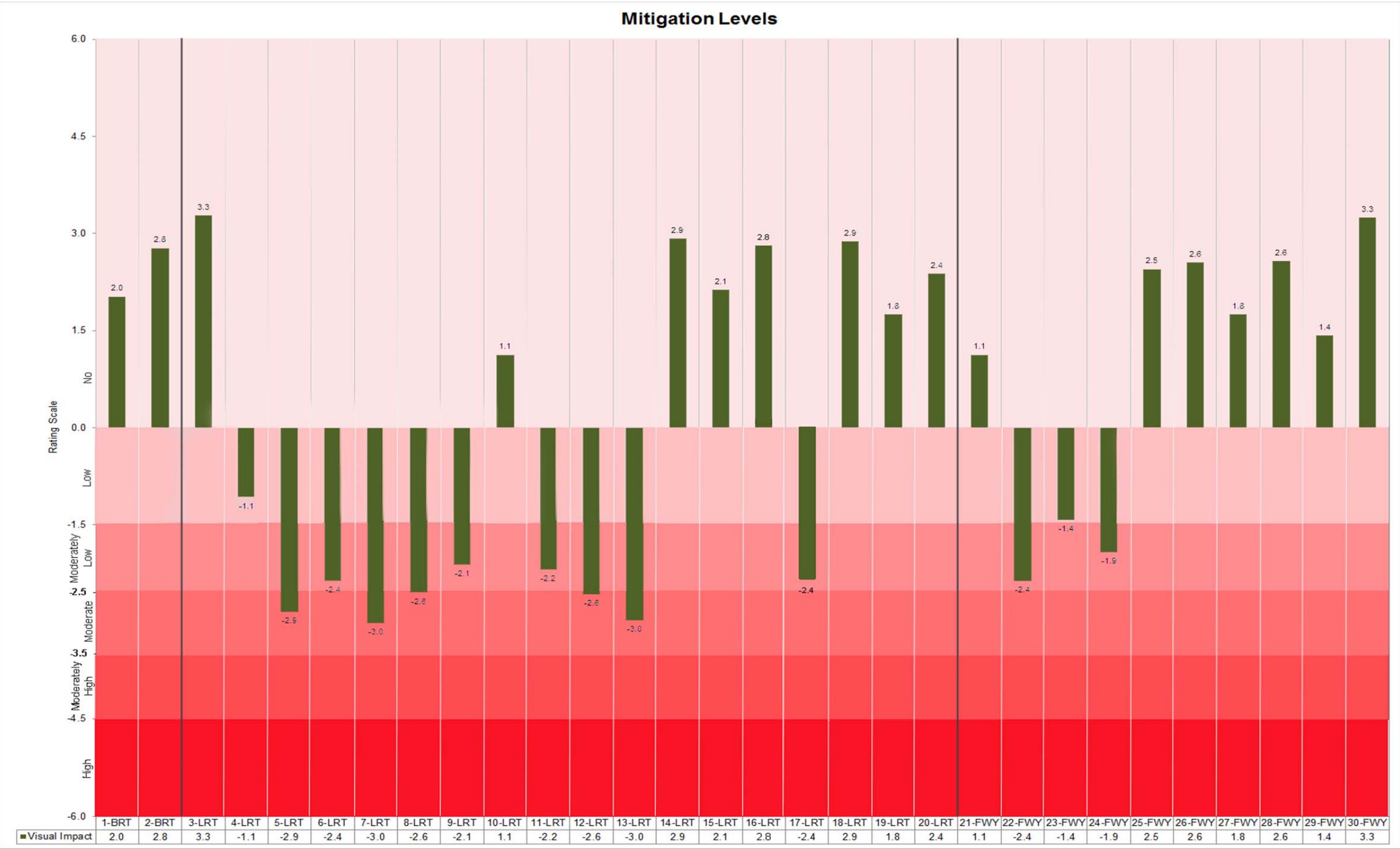
The local communities have expressed their strong desire to maintain and use the historic design traditions of the area (particularly in the northern section). Aesthetics incorporating and respecting the varied local architectural traditions are also very important to the communities. While keeping the communities' preferences in mind, the principles of Environmental Justice should also be applied and high aesthetic values should be carried equally throughout the entire proposed Project. Attention to how visual measures are applied should also be included in the level of measures required at each location – the higher the adverse impact, the greater the need to include avoidance, reduction, and concealment measures. This will be implemented in the form of a corridor-wide aesthetics master plan developed in subsequent phases of this project.

This process would include a partnership between the communities along the entire length of the project as well as METRO, Caltrans and other stakeholders in the form of an advisory group. Input from this group would include but not be limited to the desired visual character, spirit or community culture of the various communities and historic values of the individual communities.

Figure 10-1 graphically illustrates the levels of visual measures required for the Key Views. Visual impacts where negative resource change occurs would be higher priority for mitigation than where positive resource change occurs, and therefore, visual impacts for key views with negative resource change have been graphed using a negative value.

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Figure 10-1: Levels of Visual Measures



Source: Tatsumi and Partners (2014)

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XI. Architectural Design Considerations

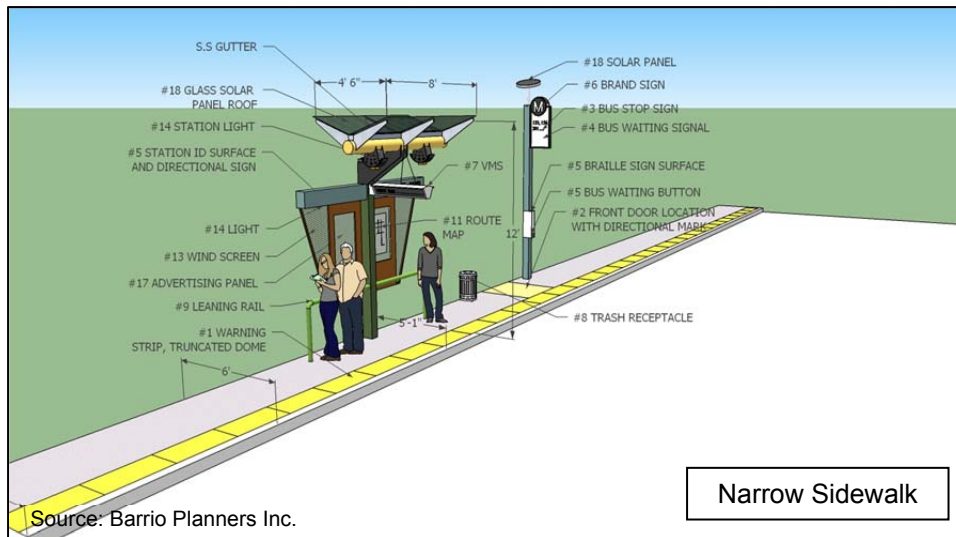
The design team has prepared preliminary design concepts for the structural and landscape components of each of the Build Alternatives. The following provides a description of the preliminary design concepts by alternative.

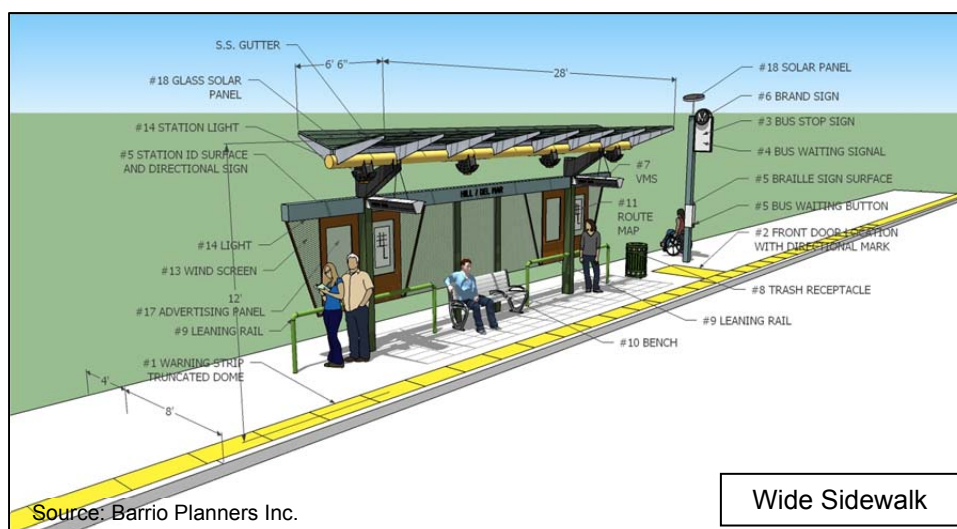
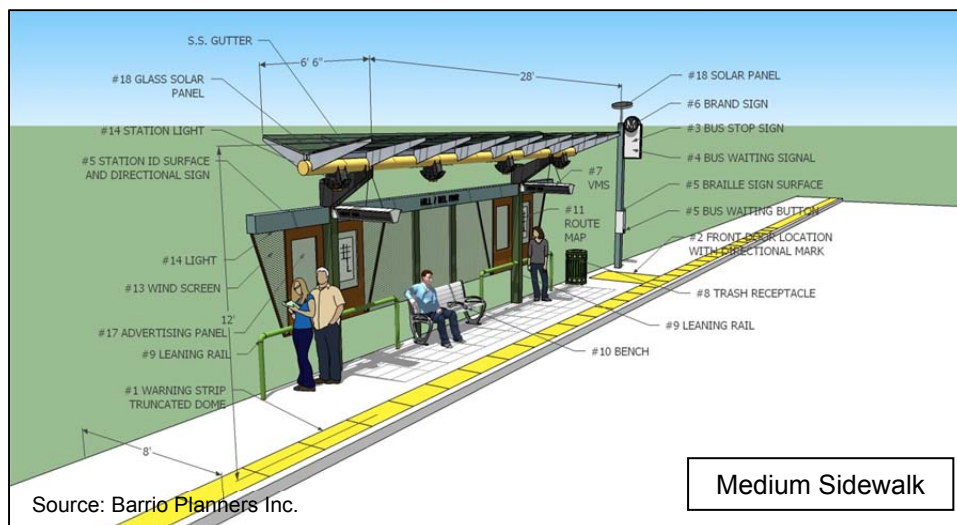
Bus Rapid Transit (BRT) Alternative

The following design considerations were used in developing the BRT Stop Stations. Considerations include:

1. Element of continuity.
2. Metro Branding.
3. Existing foot traffic circulations.
4. Existing traffic intersection.
5. Amount of ridership at each station.
6. Safety concerns.

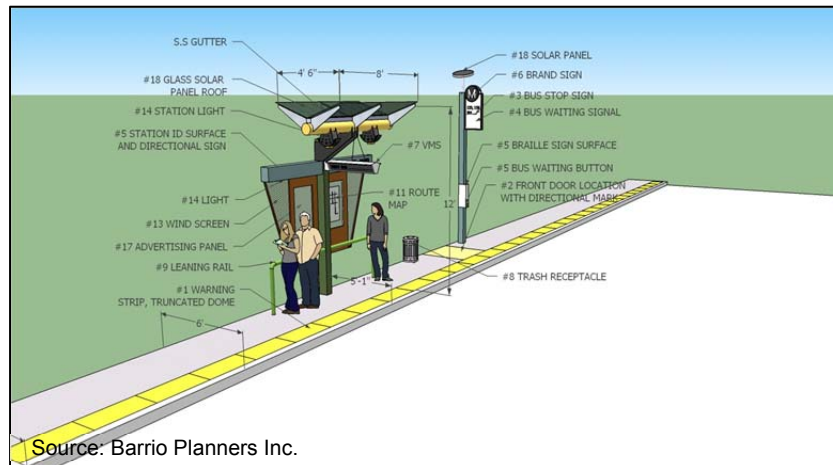
The preliminary concept of the BRT Stop Station Canopy design is a light steel structure cantilevered from back of the sidewalk to curb face. The roof of the structure is composed of glass panels with solar cells inserted to produce its own for self support electrical lighting demand. The supporting amenities will be provided as a typical modern station. See 3D illustrations for amenities provided. Three (3) different Bus Stop Stations were designed to address specific design considerations.





1. BRT Stop Station-Narrow Sidewalk

This design addresses conditions where there is limited sidewalk width (typically less than six feet). This shelter would be located primarily in residential areas and commercial areas where available right of way is very limited.



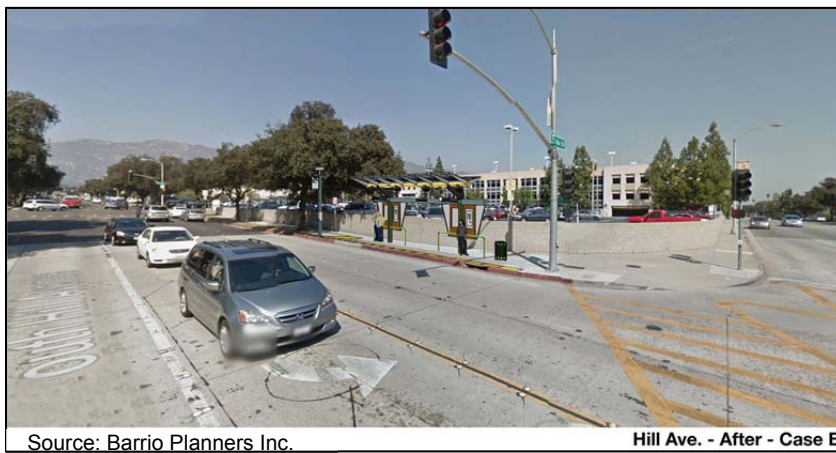
Whittier Blvd. - Before- North Bound - Case A



Whittier Blvd. - After - North Bound - Case A

2. BRT Stop Station-Medium Sidewalk

This design addresses conditions where there is a moderate sidewalk width (generally six to eight feet). This shelter would typically be located in commercial/retail areas.



3. BRT Stop Station-Wide Sidewalk

This design addresses conditions where the sidewalk is eight feet or wider. This shelter would primarily be located in commercial area with high ridership intersections.



Source: Barrio Planners Inc.

Whittier Blvd. - Before - South Bound - Case C



Source: Barrio Planners Inc.

Whittier Blvd. - After - South Bound - Case C

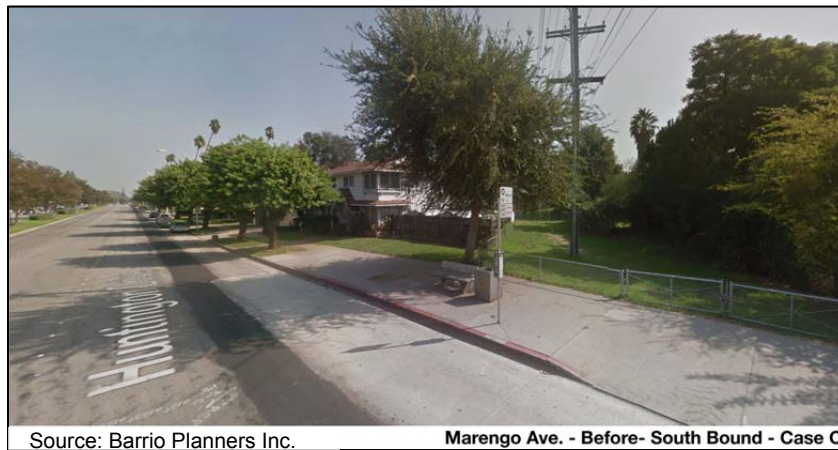


Source: Barrio Planners Inc.

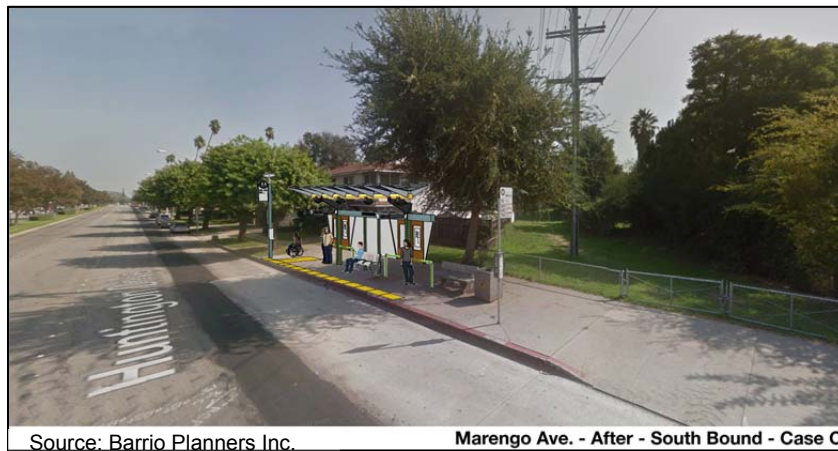
Marengo Ave. - Before - North Bound - Case C



Source: Barrio Planners Inc. Marengo Ave. - After - North Bound - Case C

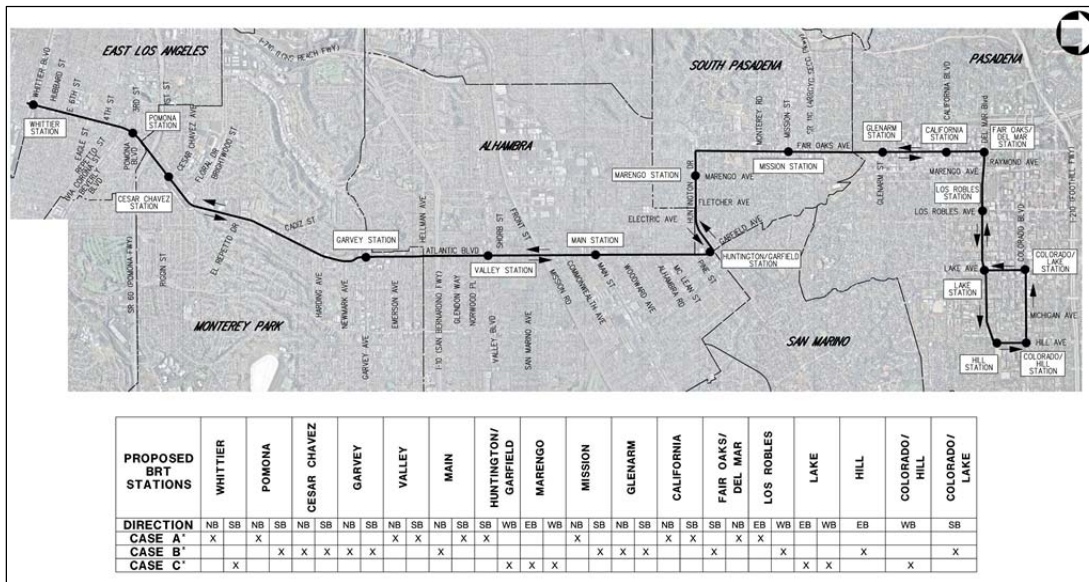


Source: Barrio Planners Inc. Marengo Ave. - Before- South Bound - Case C



Source: Barrio Planners Inc. Marengo Ave. - After - South Bound - Case C

See BRT System Route and assigned Design case(s) per Stop Station.



Source: Barrio Planners Inc.

Light Rail Transit (LRT) Alternative

The preliminary concept design of the LRT Alternative was developed to address the visual effects of the following LRT improvements:

1. Elevated rail supporting structure and catenary wires and supporting poles.
2. Aerial/Surface Stations.
3. Train maintenance and storage yard.
4. Canopy at portal to Underground stations.
5. Traction power substation structure.
6. Parking facilities.

The proposed Design solution(s) include:

Aerial Station at 3rd & Mednik Station

The Site location for the 3rd & Mednik Station is situated at Mednik and 3rd Street, Northwest of the existing at grade Mednik station on 3rd Street. The existing use of the site is retail complex serving the surrounding offices and residential.





Top of this aerial station including weather protection canopy and catenaries wires will be approximately at 45 to 50' tall with massive concrete supporting structure. The station is too large and too tall for the surrounding especially on the west side of the station that is in adjacent to single family homes.

The following design considerations were utilized to develop the preliminary concepts for the LRT Station at 3rd and Mednik as an example for Elevated Stations.

1. Create foot traffic connection between the existing at grade station to the new aerial station with enhanced decorative, color sidewalk streetscape and landscaping, outdoor dining area and retail stores.
2. Design Landscape to match the existing landscape for East LA Civic Center on the eastside of the street.
3. Create a median island with palm trees to divert the height attention to the middle of the street.
4. Redevelop shopping mall to serve the community.
5. Create horizontal elements to lower down the height impact of the station.
6. Vertical landscaping to screen out the station from residential area.



**Fillmore Station:**

Fillmore Station is the last station on the LRT Alternative. The underground Fillmore Station is located West of the existing at grade Fillmore station, and North of Park and Ride structure. The Portal Canopy is a translucent structure designed per the Kit of Parts introduced by the Metro in 2013 a new Standard for subway stations. Landscape around the station will be Phoenix Palm to be in concert with the surrounding landscape. Shading structures provided to connect the existing station to new underground station to park and ride structure and to kiss and ride drop off area.



The following preliminary concepts for the LRT Station at Fillmore Station is an example for Underground Stations.



Train Maintenance and Storage Yard at Valley Boulevard:

The Train Maintenance and Storage Yard area would be located at Valley Boulevard as a bridge structure connecting area the north and south of Valley Boulevard. The train yard area would be seen from Valley Boulevard heading East and West as a wide bridge structure crossing the Boulevard.

Proposed engineering features that were incorporated to minimize visual effects of the maintenance yard are:

1. Lower yard elevation to below residential property on the east, view from residential area will not be blocked by the yard.
2. Landscape buffering between yard and residential area.
3. Widen the yard bridge over Valley Boulevard to block out visibility to the yard from Valley Boulevard. Provide planting area and/or green screen on the edge of the bridge.



Freeway Tunnel Alternative:

The Freeway Tunnel alternative is to provide underground continuation of Freeway 710 from its current terminus at Valley Blvd in both the City of Los Angeles El Sereno Community and the City of Alhambra to I-210 Freeway in the City of Pasadena. The design of the Freeway Tunnel Alternative has included specific design considerations at the following locations.

1. Entrance and exit to the portal at north and south end.
2. Exhaust stack at north and south end.
3. Operation and Maintenance Center (OMC building) at north and south end.

Entrance and Exit to the Portal:

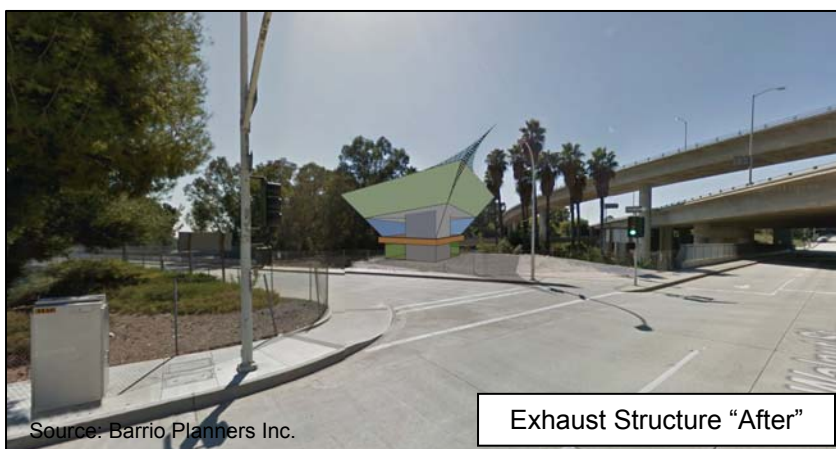
The Freeway Tunnel Alternative would have a 60-foot diameter with double deck within the tunnel. For the single bore tunnel option, the traffic would run on 2-opposite direction on each deck. The Dual bore option, the traffic will run on 2-opposite direction on each tunnel.

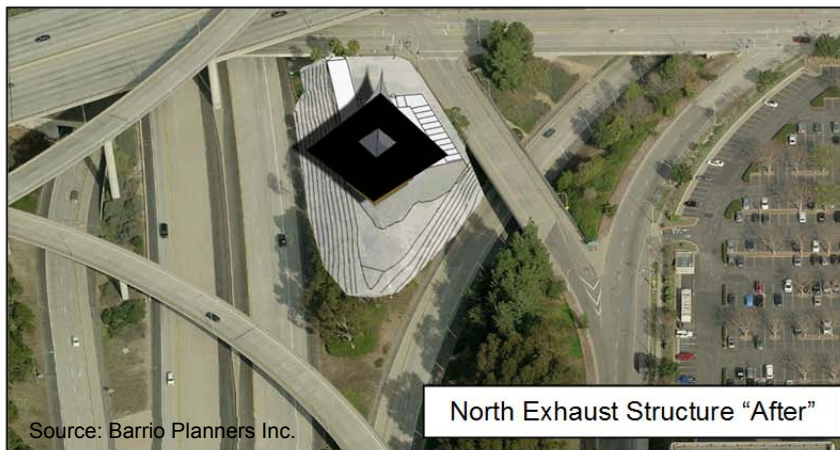
The on grade Freeway system will have to turn on top each other while descending into the underground tunnel. Change of freeway elevations and sloping surface will be landscaped, per Caltrans Standards.

Exhaust Structure:

Exhaust structure will be located at the north and south portal. The structures were proposed in two (2) options;

1. Free standing exhausts structure.
2. Combined structure.

Free Standing Exhaust Structure:



**OMC Building:**

OMC buildings are design to house supporting and operation to the tunnel that will include emergency response, monitoring, and maintenance of the tunnel. The building will be located directly above the exhaust fan system inside the tunnel.

The OMC building can also combined with the exhaust stack terminated at roof level.



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