VISUAL IMPACT ASSESSMENT

High Desert Corridor

September 2015

California Department of Transportation

District 7- Los Angeles, District 8-San Bernardino

Project No. 0712000035 (EA 2600U0)

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Statement of Compliance: Produced in compliance with National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) requirements, as appropriate, to meet the level of analysis and documentation that has been determined necessary for this project.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

VISUAL IMPACT ASSESSMENT

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I. EXECUTIVE SUMMARY

The Visual Impact Assessment (VIA) is a technical report of the Draft Environmental Document to assess the visual impacts of the proposal to construct a new 63-mile west-east High Desert Corridor Freeway/ Expressway from State Route 14 (Post Mile 42.4) through Los Angeles to the San Bernardino County line and extending easterly to Interstate 15 and for another 13 miles to State Route 18 (Post Mile 84.4R).

A preferred project alternative has been chosen consisting of the following elements:

- The Freeway/Tollway with High Speed Rail Alternative (including Variations D and B1)
- HSR Option 1C to connect to the Palmdale Transportation Center
- HSR main alignment to connect to the Victorville XpressWest rail station
- Bike path between US-395 and 20th Street East (with funding to provide an extension along local streets to the Palmdale Transportation Center)
- Green energy production and transmission facilities within study area footprint

The existing visual context is characterized by low density residential, rural desert and some large and small commercial developments spread throughout the area. This project will change the rural appearance of some of the communities through which it passes with the implementation of large, widened, urban, transportation infrastructure, concrete urban structures. The primary overall visual effect of the project would be increased urban character caused by the additional highway lanes, reduction of desert landscape, and at some locations, the construction of sound walls and structures that will block views. The inherent visual change associated with an increase in visual scale and additional hardscape would be unavoidable and noticeable. Overall however, viewer sensitivity and response to change is expected to be moderate. In combination with the various viewer groups moderate sensitivity and response to change, the overall visual impact is characterized as moderate.

Mitigations that will be included in the project are appropriate design of structures and architecture. Bridges will be aesthetically pleasing, incorporating context sensitive solutions to mitigate or minimize their visual impact. The two vista points will be enhanced with natural stone perimeter wall, walkway, solar telecommunications devices for the deaf, and signage with information about the sites. Planting of native vegetation and landscaping consistent with the character of the adjacent community landscape. As appropriate, buffers between roadway and communities should be planted, aesthetic treatments and vines planted on walls would reduce the urban appearance to some extent. The project shall take measures to consolidate signs, eliminate redundancy in signage, locate traffic control cabinets out of sight, eliminate redundancy of lighting standards and use context sensitive street lighting designs. Utility wires should be located underground to minimize visual impact. Dark sky-compliant lighting should be used to minimize light pollution into the sky while maximizing light cast onto the ground.

The VIA presented in this report consists of the September 2014 draft augmented with visual impact analysis of the design variations pertaining to the Palmdale Transportation Center.

II. PURPOSE OF STUDY

The purpose of this visual impact assessment (VIA) is to document potential visual impacts caused by the proposed project and to propose measures to lessen any detrimental impacts that are identified. Visual impacts are demonstrated by identifying visual resources in the project area, measuring the

amount of change that would occur as a result of the project, and predicting how the affected public would respond to or perceive those changes.

III. PROJECT DESCRIPTION

The California Department of Transportation (Caltrans), in cooperation with the Los Angeles County Metropolitan Transportation Authority (Metro), proposes construction of the High Desert Corridor (HDC) as a new transportation facility in the High Desert region of Los Angeles and San Bernardino counties. The proposed 63-mile-long west-east facility would provide route continuity and relieve traffic congestion between State Route 14 (SR-14) in Los Angeles County and SR-18 and Interstate 15 (I-15) in San Bernardino County. The project would comprise of one or more of the following major components, including highway, tollway, rail transit, bikeway, and recommendation for green energy facilities. Figures 1 and 2 are project vicinity and location maps, respectively.

Purpose and Need

The purpose of the proposed action is to improve west-east mobility through the High Desert region of southern California. This can be achieved by addressing present and future travel demand and mobility needs within the Antelope and Victor valleys. The proposed project is intended to achieve the following objectives:

- Increase capacity of west-east transportation facilities to accommodate existing and future transportation demand
- Improve travel safety and reliability within the High Desert region
- Improve the regional goods movement network
- Provide improved access and connectivity to regional transportation facilities, including airports and existing and future passenger rail systems (which include the proposed California HSR system and the proposed XpressWest HSR system)
- Contribute to state greenhouse gas (GHG) reduction goals by supporting future plans for green energy features along the corridor

The specific needs to be addressed by the proposed action include:

- Recent and future planned population growth within the High Desert region
- Limited and unreliable west-east connectivity within the High Desert region
- Regional demands for goods movement to support the growth of the regional economy
- Future demands for the use of green energy, including sustainability and green energy provisions in state law and policy

Project Alternatives

Several project alternatives and design variations have been considered and evaluated. A No Build Alternative and four build alternatives were selected for detailed evaluation in the Draft and Final Environmental Impact Report/Environmental Impact Statement. Figure 3 shows the primary alignment and variations in certain location.

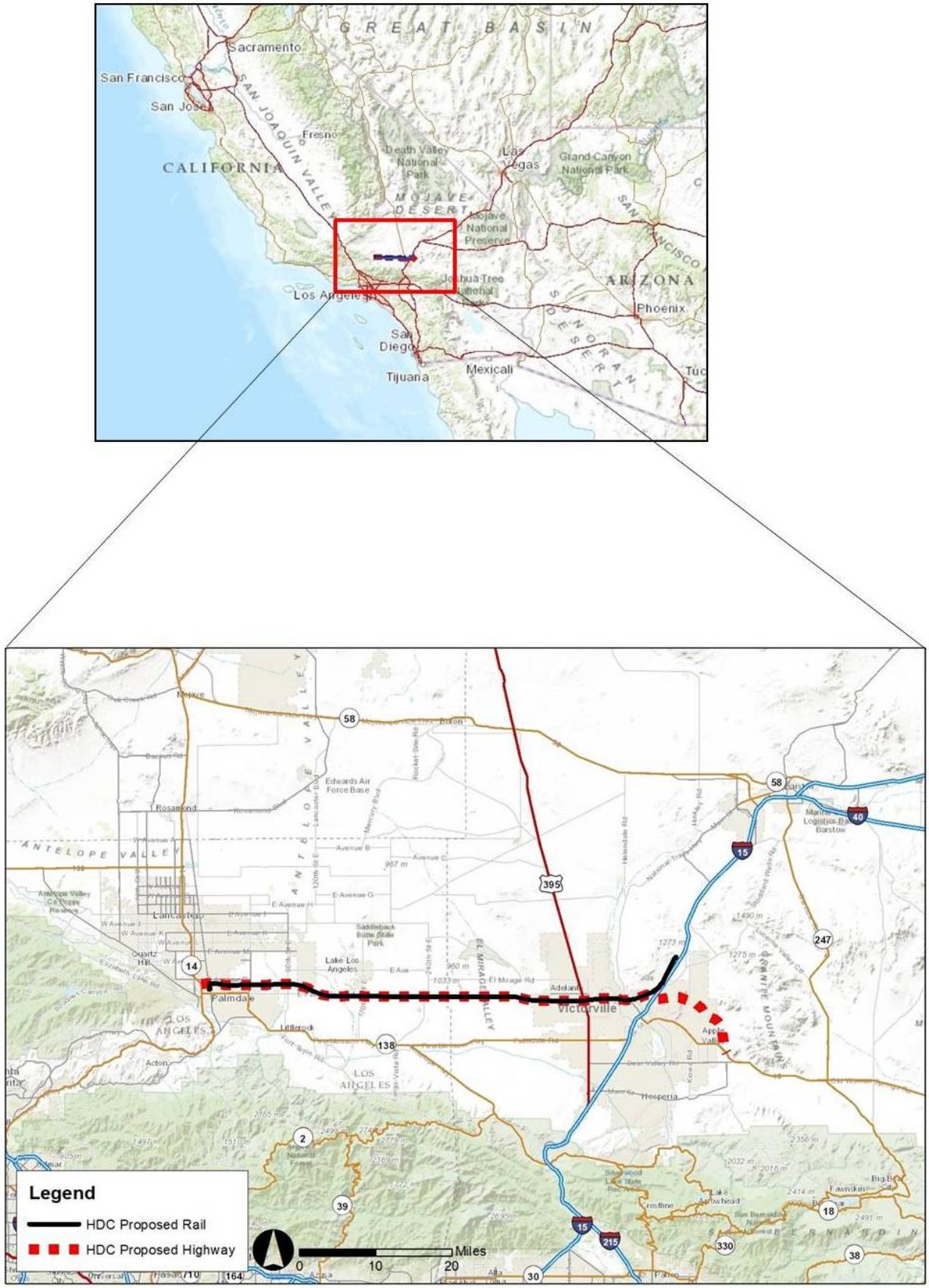
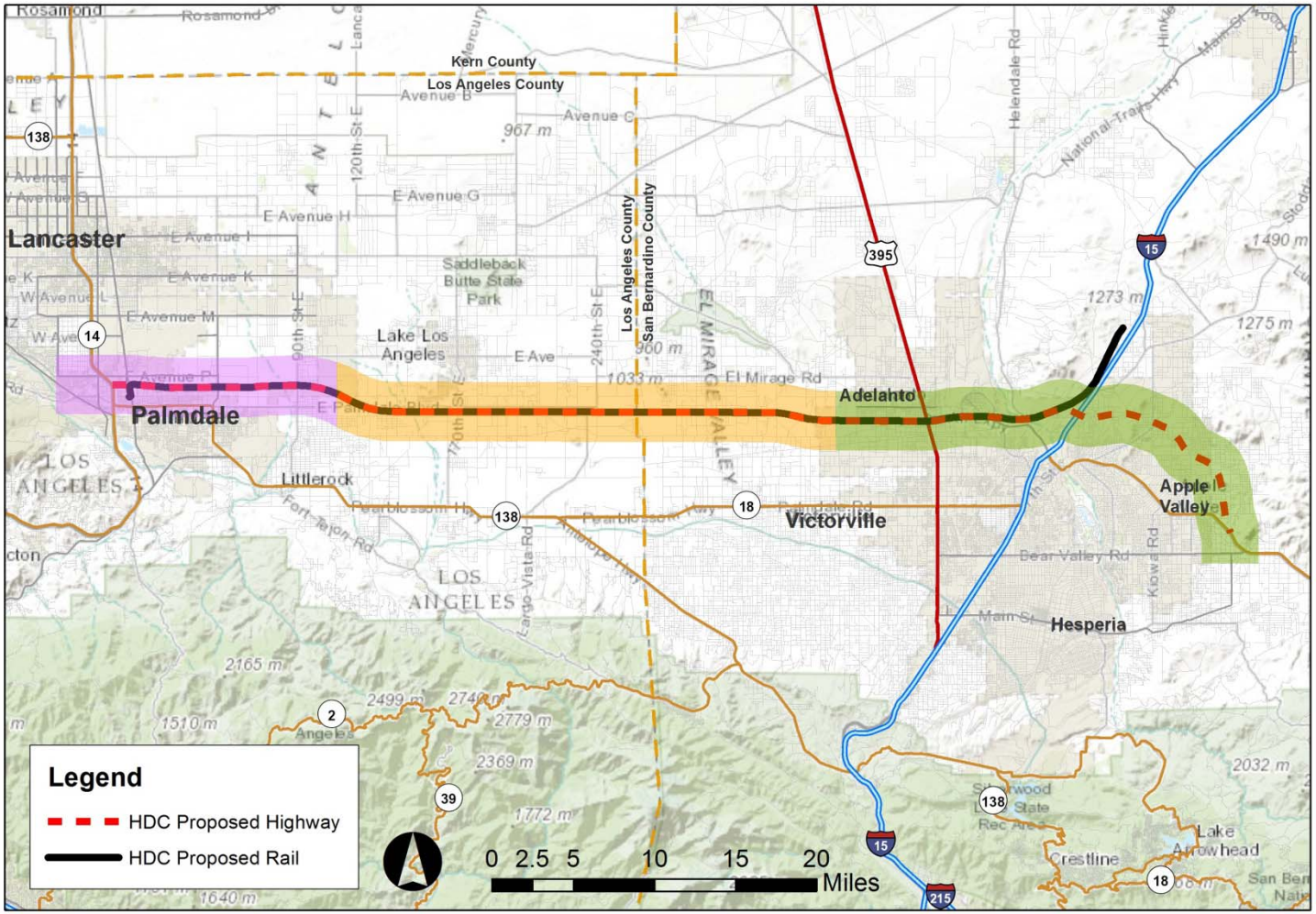


Figure 1. Project Vicinity Map



ANTELOPE VALLEY	HIGH DESERT	VICTOR VALLEY
Los Angeles County	**Los Angeles County–San Bernardino County**	**San Bernardino County**
Lancaster, Palmdale	Lake Los Angeles, El Mirage	Adelanto, Victorville, Apple Valley, Hesperia

Figure 2. Project Location Map

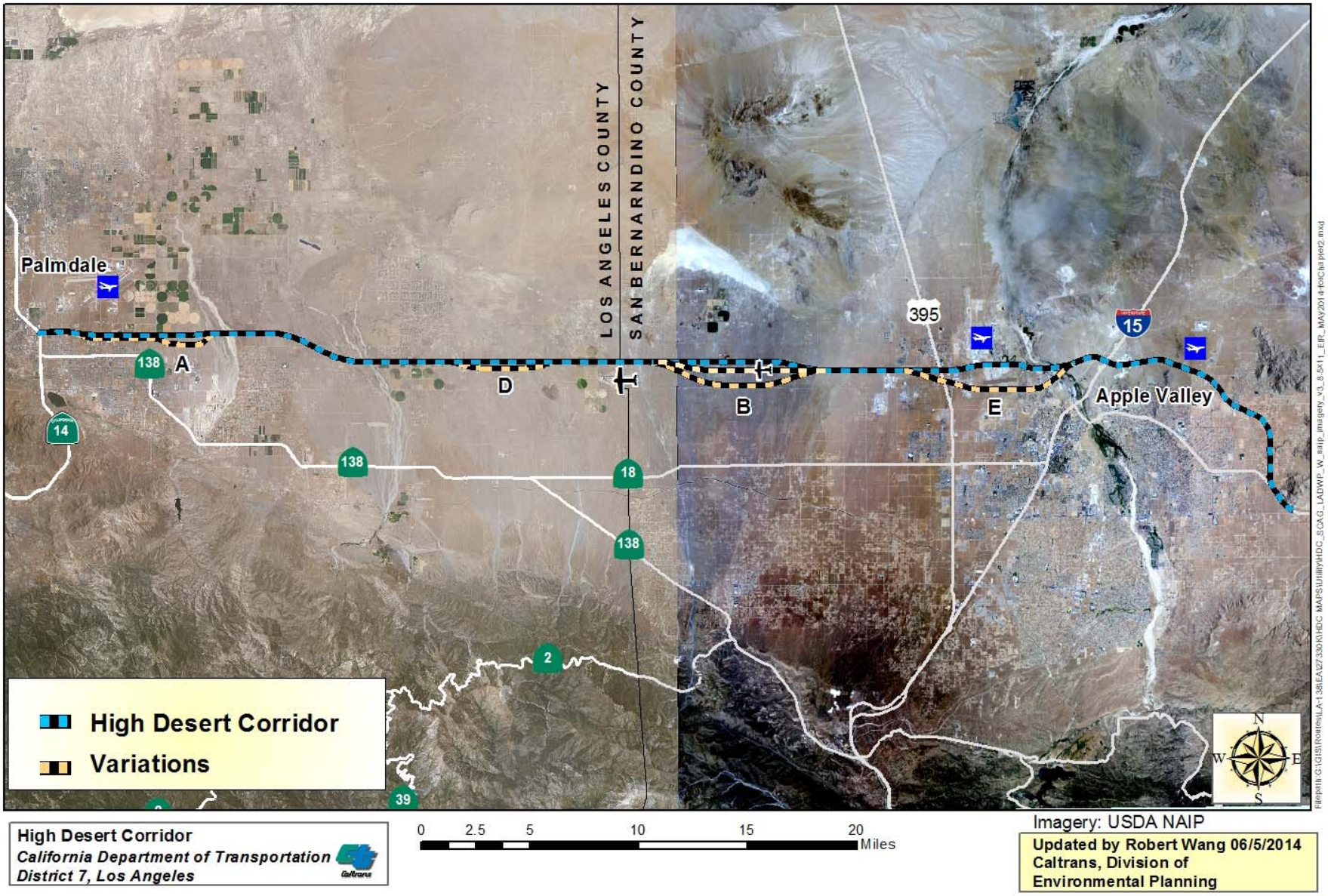


Figure 3. Alternative Alignments

No Build Alternative

Under the No Build alternative, no new transportation infrastructure would be built within the project area to connect Los Angeles and San Bernardino Counties aside from existing SR-138 safety corridor improvements in Los Angeles County and SR-18 corridor improvements in San Bernardino County. Traffic circulation and congestion currently experienced on Palmdale Boulevard, Pearblossom Highway, Air Expressway, Palmdale Road, and Happy Trails Highway (existing SR-18) would remain from increasing transportation demand. The No Build Alternative functions as a baseline to compare against all of the proposed build alternatives.

Freeway/Expressway Alternative (Avenue P-8, I-15, and SR-18)

This alternative would consist of a combination of a controlled-access freeway and at-grade expressway for a total distance of 63 miles. The alignment generally follows Avenue P-8 in Los Angeles County and then runs slightly south of El Mirage Road in San Bernardino County. The alignment then extends east to Air Expressway Road near I-15 and curves slightly southeast to terminate at Bear Valley Road near Apple Valley. Bicycle facility and green energy components would be incorporated into the design features of this alternative.

Four physical alignment variations are being considered, including:

- Variation A: Near Palmdale, the freeway/expressway would dip slightly south of the main alignment, approximately between 15th Street East and Little Rock Wash.
- Variation B: East of the county line, the freeway/expressway would flare out slightly south of the main alignment between Oasis Road and Coughlin Road. Another option for Variation B is called Variation B1, which is shorter than Variation B and would run slightly south of the main alignment.
- Variation D: Near the community of Lake Los Angeles, the freeway/expressway would dip slightly south of the main alignment, just south of Avenue R approximately between 180th Street East and 230th Street East.
- Variation E: Near Adelanto and Victorville, the freeway/expressway would dip south of the federal prison.

Freeway/Tollway Alternative (Avenue P-8, I-15, and SR-18)

This alternative would follow the same physical alignment as the Freeway/Expressway Alternative (with Variations A, B, D, and E), but it would have sections that operate as a tollway. The segment where toll lanes are proposed, four in each direction, would begin from 100th Street East in Palmdale and end at US 395 in Victorville. The Central Segment would consist of a toll facility, and motorists who choose not to use this segment of the HDC would have the option to exit and use local west-east parallel roads adjacent to the HDC and reenter the freeway segments from either 90th Street East in Palmdale or US 395 in Adelanto. Bicycle facility and green energy components would be incorporated into the design features of this alternative.

Freeway/Expressway Alternative with High-Speed Rail (HSR) Feeder/Connector Service

This alternative would be the same as the Freeway/Expressway Alternative, but it also includes an HSR Feeder Service between Palmdale and Victorville. Variations A, B, D, and E were considered, but Variation A was later determined to be not a viable variation for the alternatives with HSR due to some geometric constraint. Additional elements would include bikeways and green energy facilities as described under the Freeway/Expressway Alternative.

The HSR component of the HDC would operate as a new west to east passenger rail corridor from the existing Metrolink station in Palmdale (Antelope Valley) to Victorville (Victor Valley). The HSR Feeder Service would consist of steel wheels on track and would have a maximum operating speed of 125 miles per hour (mph). The HSR Feeder would be built within the HDC right-of-way (ROW). The rail alignment would primarily run in the median of the HDC freeway.

Station Connection

To connect to the Palmdale and Victorville rail stations, ROW would be required for the station connection approaches as the HSR Feeder/Connector alignment curves away from the HDC ROW and to provide overnight storage for the trains.

Palmdale Rail Connection

For the Palmdale rail connection, two rail connection approaches are proposed for connecting the HDC to the California HSR network, Options 1 and 7 (see Figure 4). Both options allow for eastbound and westbound tracks on the HDC to connect to the California HSR network northbound and southbound tracks by using a combination of aerial and cut-and-cover or tunneling structures.

Rail Option 1

Option 1 would shift the existing Palmdale Transportation Center south approximately 800 feet and would require a cut-and-cover box and mined tunnels configuration. This option would run adjacent to the Air Force Plant 42 parking lot associated with the Palmdale Airport. The alignment would also cross under commercial development at Rancho Vista Boulevard and 15th Street East. This option would diverge outside of the HDC median and would require only two rail tracks to cross under the HDC westbound lanes, reducing the ROW needed for the HDC. Three station variations are being considered under Rail Option 1 as described below.

Variation A

This variation would place the HDC and Metrolink station platforms on the west side of Sierra Highway inside the Union Pacific Railroad (UPRR) ROW. The HDC platforms would be approximately 20 feet in width and 1,400 feet in length. The Metrolink platforms would be approximately 50 feet in width and 500 feet in length. The HDC platforms would extend from Transportation Drive to about 700 feet north of Avenue Q. Station area parking is proposed at the terminus of 6th Street (UPRR/Sierra Highway) and would provide 6,200 surface parking spaces. The existing Palmdale Transportation Center would be shifted approximately 800 feet south of its current location.

Variation B

This variation is the same as Variation A with the following exceptions: (1) HDC station platforms would extend from just north of Avenue Q and immediately north of Avenue Q3; and (2) this option would not affect the location of the existing Palmdale Transportation Center.

Variation C

This option would place the HDC and Metrolink station platforms on the west side of Clock Tower Plaza East and outside of the UPRR ROW. The HDC platforms would extend from East Avenue Q to East Avenue Q4. Station area parking is proposed at the terminus of 6th Street (UPRR/Sierra Highway) and would provide 6,200 parking spaces (via an above-grade structure). This option would not affect the location of the existing Palmdale Transportation Center.

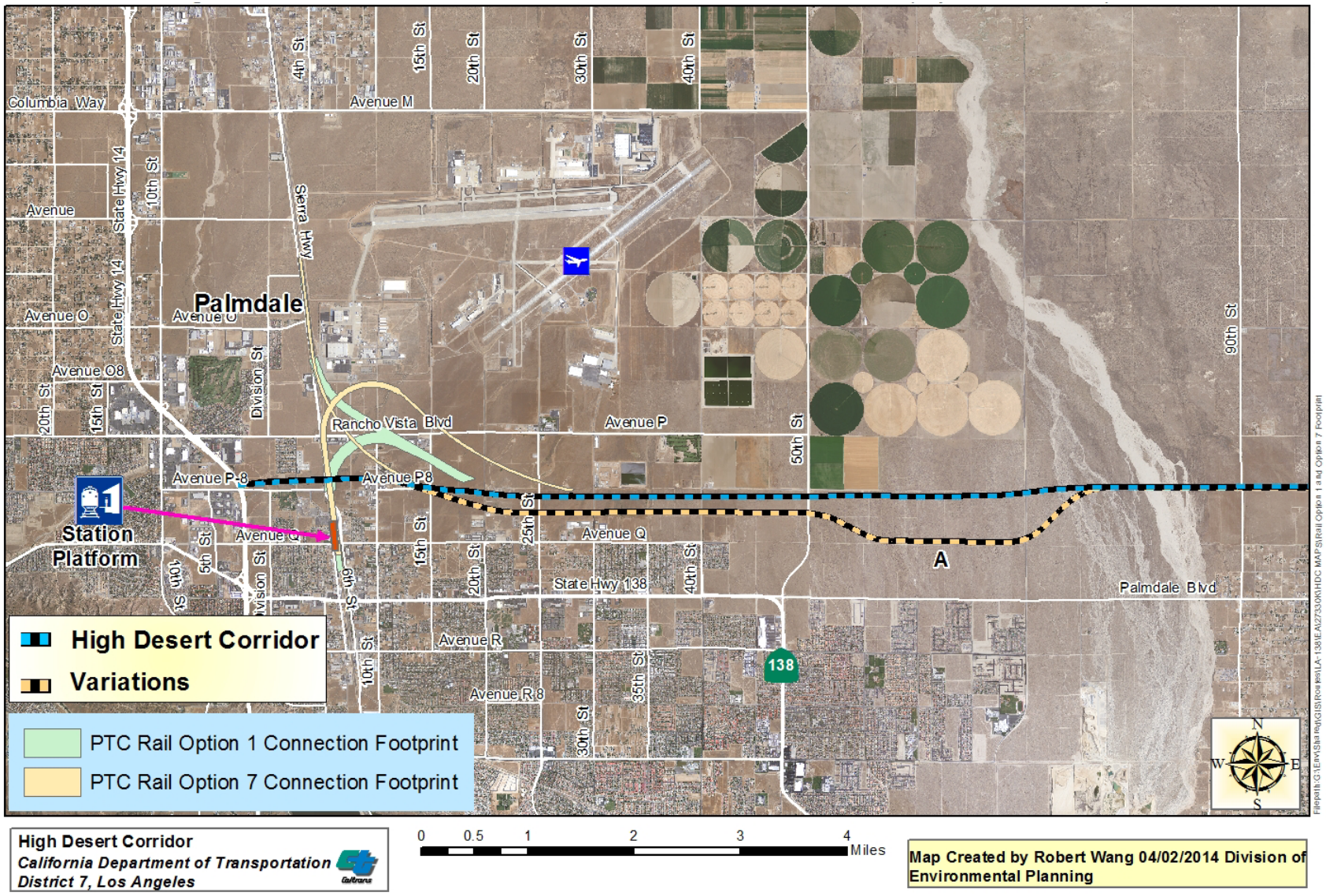


Figure 4. Palmdale Rail Connection Options 1 and 7 Alignment

Station location variations are the same for Rail Options 1 and 7, although the "wye" connections differ, as well as the corresponding details on location and tunnel/aerial configurations.

Rail Option 7

Option 7 would require a mix of aerial structures and tunneling, and it would allow the Palmdale Transportation Center to remain at its current location. This option would encroach into a small residential area near 10th Street East and would require a four-track section within the HDC median, necessitating a larger ROW section for the HDC in this area.

Three station variations are being considered under Rail Option 7 as same as Rail Option 1 as described above.

Freeway/Tollway Alternative with High-Speed Rail Feeder/Connector Service

This alternative would be the same as the Freeway/Tollway Alternative (including Variations A, D, B, and E), but it also includes an HSR Feeder Service between Palmdale and Victorville. Similar to the Freeway/Tollway Alternative, the bicycle facility and green energy components would be incorporated into the design features of this alternative. Rail Options 1 and 7 and three station variations described in the Freeway/Tollway Alternative with HSR Feeder Connector Service are also being considered.

PROPOSED PROJECT FEATURES COMMON TO ALL BUILD ALTERNATIVES STUDIED

Right of Way

Sufficient right of way will need to be acquired for this type of cross section. The typical width of the Right-of Way of Highway Alone alternative without High Speeder Feeder Rail will be 300 ft for the segment between SR-14 and 100th Street (St) East, and the segment between US-395 and Bear Valley Road Cutoff (end of project), and 500 ft for the segment between 100th St. E. and US-395.) Right of Way for HDC/HSR Combo Alternative is 500' ROW between SR-14 and US 395, 300' ROW between US 395 and Bear Valley Cutoff. These are typically limits. Interchanges, and Rail Way Connection and rail limit outside of 300'-500' footprint is additional ROW.

Graded Slope

Most of the new highway will be on fill. Slopes are anticipated to be at 4:1 ratio or flatter in grade. All build alternatives will require grading.

Drainage Facilities

The proposed drainage system includes infiltration basins, channels, ditches, bridge crossings and cross culverts.

Interchanges

New freeway-to-freeway interchanges will be constructed at SR-14 and I-15.

Overcrossing and Undercrossings

Multiple structures will be constructed to separate grades of existing north-south streets and the railroad. These structures may include viaducts 26-30 ft tall.

Bridges

Significantly longer bridges are the viaduct between SR-14 and 10th Street E., the bridges over the Mojave River in Victorville, Little Rock Wash, Big Rock Wash, and High Speed Feeder Rail Way Bridges in Palmdale.

Lighting, Signage and Fencing

Street lights (installed only at interchange ramps), directional signs and Right-of-Way access control fencing will all be installed as part of the project.

High Speed Rail Train Station

The existing train station in Palmdale will be significantly enlarged to accommodate HSR and maintenance facilities and accompanying parking lots will be built as part of the project.

Bike Path

A Class I bike path will be constructed along the south side of the freeway (westbound side) off the roadway embankment from 20th St East in Palmdale to US-395.

Vegetation

Native vegetation will be planted to re-establish the desert region plants that will be affected by construction activities. Native riparian vegetation, California Juniper and Joshua trees will be preserved as much as possible. In the more urban and residential areas vegetation to be planted will be consistent with the character of the adjacent community landscape. Planted buffers between roadway and the community will be part of the project in urban areas. All build alternatives will require removal of vegetation.

Soundwalls

Several soundwalls have been proposed along those portions of the proposed roadway adjacent to residential areas.

Green Energy Facilities and/or transmission facility

Several green energy technologies would be incorporated into the project build alternatives to minimize impact to energy and to meet the green corridor concept. The specific technologies, exact locations and quantity of these facilities have not been finalized. Further studies are underway.

Vista Points

Two Vista points located at Choco Road and Deadman's point are proposed as part of the project.

IV. PROJECT LOCATION AND SETTING

The project location and setting provides the context for determining the type and severity of changes to the existing visual environment. The terms *visual character* and *visual quality* are defined below and are used to further describe the visual environment. The project setting is also referred to as the corridor (or project corridor), defined as the area of land that is visible from, adjacent to, and outside the highway right-of-way, and is determined by topography, vegetation, and viewing distance.

Visual character includes attributes such as form, line, color, texture and scale. Visual quality is evaluated by identifying the vividness, intactness, and unity in the project corridor.

The proposed project is located between SR-14 in Palmdale in Los Angeles County, California and SR-18 in the town of Apple Valley in San Bernardino County, California. The entire project is located in the Mojave Desert of Southern California. The landscape is characterized by desert chaparral consisting of desert scrub, mixed with Joshua trees and California Junipers. The land use within the corridor is primarily

rural and suburban residential but also includes areas of commercial, industrial, recreational, open space and agricultural land uses throughout.

The project begins in the City of Palmdale and passes through the cities of Adelanto, Victorville and ends in the town of Apple Valley.

These cities and town are located in the High Desert, a name which comes from its higher elevations and more northern latitude than the Low Desert (which includes cities such as Palm Springs). The summers are very hot and dry, and winters are cold and windy. The area has over 300 days of sunshine per year.

Palmdale, particularly around the project area, is primarily residential with some commercial buildings. The most prominent facility is the Palmdale Regional Airport that is expected to expand in the future.

Between Palmdale and Adelanto, making up the majority of the project length, the project runs through open desert vegetation with some residences spread throughout. There are also dairy farms and agriculture. This portion of the project is rural and has very little development.

In Adelanto the prominent facilities are commercial and industrial with a burgeoning residential community. It is San Bernardino's least populated city at 31,000 people, but is expected to reach over 100,000 people in 20 years. The Victorville Federal Prison is located in Adelanto and is adjacent to the project alignment.

Victorville is located in the Victor Valley, in the southwestern portion of San Bernardino County, California. According to the U.S. Census Bureau's 2010 census, the city had a population of 115,903, up from 64,030 at the 2000 census. Southern California Logistics Airport (SCLA) is a public airport immediately adjacent to all the projects proposed alignment except Variation E. The airport is home to Southern California Aviation, a large transitional facility for commercial aircraft. Southern California Logistics Centre, immediately adjacent to SCLA, offers a wide variety of new warehouse and distribution facilities. Also large deposits of limestone and granite exist and are quarried in the region. Due to this the cement manufacturing industry has emerged as the single most important industry of the Victor Valley. A large cement factory is adjacent to the project's alignment. Southern California Edison has a large substation located adjacent to the project alignment as it crosses the Mojave River.

The San Bernardino County town of Apple Valley lies along the Mojave River and is an emerging residential community. Apple Valley has experienced noticeable growth in recent years, yet values and maintains a strong rural character. The population of the town was 69,135 at the 2010 census. Apple Valley has recreational opportunities which include two golf courses (one 18-hole, one 27-hole), as well as extensive trails for walking, biking and horseback riding.

Apple Valley has identified Desert Preservation within the Open Space and Conservation Element of their General Plan. Key scenic resources identified in the Desert Preservation section include mountains, peaks, ridgelines, knolls, and rock outcroppings. Portions of SR-18 east of the interchange with the HDC carry the official designation of "State Scenic Highway".

V. ASSESSMENT METHOD

This visual impact assessment generally follows the guidance outlined in the publication *Visual Impact Assessment for Highway Projects* published by the Federal Highway Administration (FHWA) in March 1981.

The following steps were followed to assess the potential visual impacts of the proposed project:

A. Define the project location and setting.
B. Identify visual assessment units and key views.

C. Analyze existing visual resources (visual character and visual quality) and resource change.
D. Describe viewers and predict viewer response.
E. Depict the visual appearance of project alternatives and assess their visual impacts.
F. Propose measures to avoid, minimize or mitigate visual impacts.

VI. VISUAL ASSESSMENT UNITS AND KEY VIEWS

The project corridor was divided into a series of "outdoor rooms" or *visual assessment units*. Each visual assessment unit has its own visual character and visual quality. It is typically defined by the limits of a particular viewshed. For this project, the following 6 visual assessment units and their associated key views have been identified:

- **Residential Area on the Valley Floor Visual Assessment Unit**

Around the project area is low density, primarily single-family residential homes comprised of one-story and two-stories. The visual components of this Unit are the homes and yards with fences. Desert Sands Park including American Indian Little League baseball fields is within this Unit.

- **Residential Area on the Upland Slopes Visual Assessment Unit**

Around the north portion of the Apple Valley project area and north eastern portion of Victorville is low density, primarily single-family residential homes comprised of one-story and two-stories. These homes have expansive views of the Valley. The visual components of this Unit are the homes and yards with fences. Within this Unit there is Horseman's Center Park, in Apple Valley. Variation E is the only alternative that crosses through the residential area on the upland slopes in Victorville.

- **Commercial and Industrial Area Visual Assessment Unit**

Adjacent to the project area there are 2 airports, a federal prison facility, cement factories, a limestone quarry, dairy farms and agriculture, an electric substation and various commercial buildings scattered around. Large warehouses and office buildings, most with fenced parking around them, are the visual components of this unit.

Los Angeles Department of Water and Power (LADWP) electric substation

Southern California Logistics Airport

Victorville Federal Prison

Schmidt Park

- **Desert Area Visual Assessment Unit**

Most of the project runs through open desert where native plants are the primary visual component and consists of desert scrub, Joshua trees and California Junipers. From the higher elevations of the project area, wide vistas with the desert in the foreground and mountains in the background can be seen. Desert Air Golf Course in Palmdale is within this Unit.

- **Seasonal Creeks Visual Assessment Unit**

  Many washes run north and south through the project limits. The primary visual components of these washes are the water and the native riparian vegetation consisting of Cottonwoods and Desert Willows.

- **Mojave River Visual Assessment Unit**

  The Mojave River flows mostly underground, through loose sediment, except during occasional flash floods during the wettest days of winter. Where the project alignment crosses the River in Victorville, in an area called the Victorville Narrows, a plug of impermeable rock forces the underground river to the surface. So the River flows above ground for a few miles, and then disappears back into the sand. Vegetation at the River consists of desert riparian habitat species including Cottonwoods, thick stands of Tamarisk, and other shrubs. Rock View Park, a municipal park of the City of Victorville, is part of this Unit.

  This is also where the Santa Fe Railroad crosses the River. This railway carries a constant flow of freight train traffic.

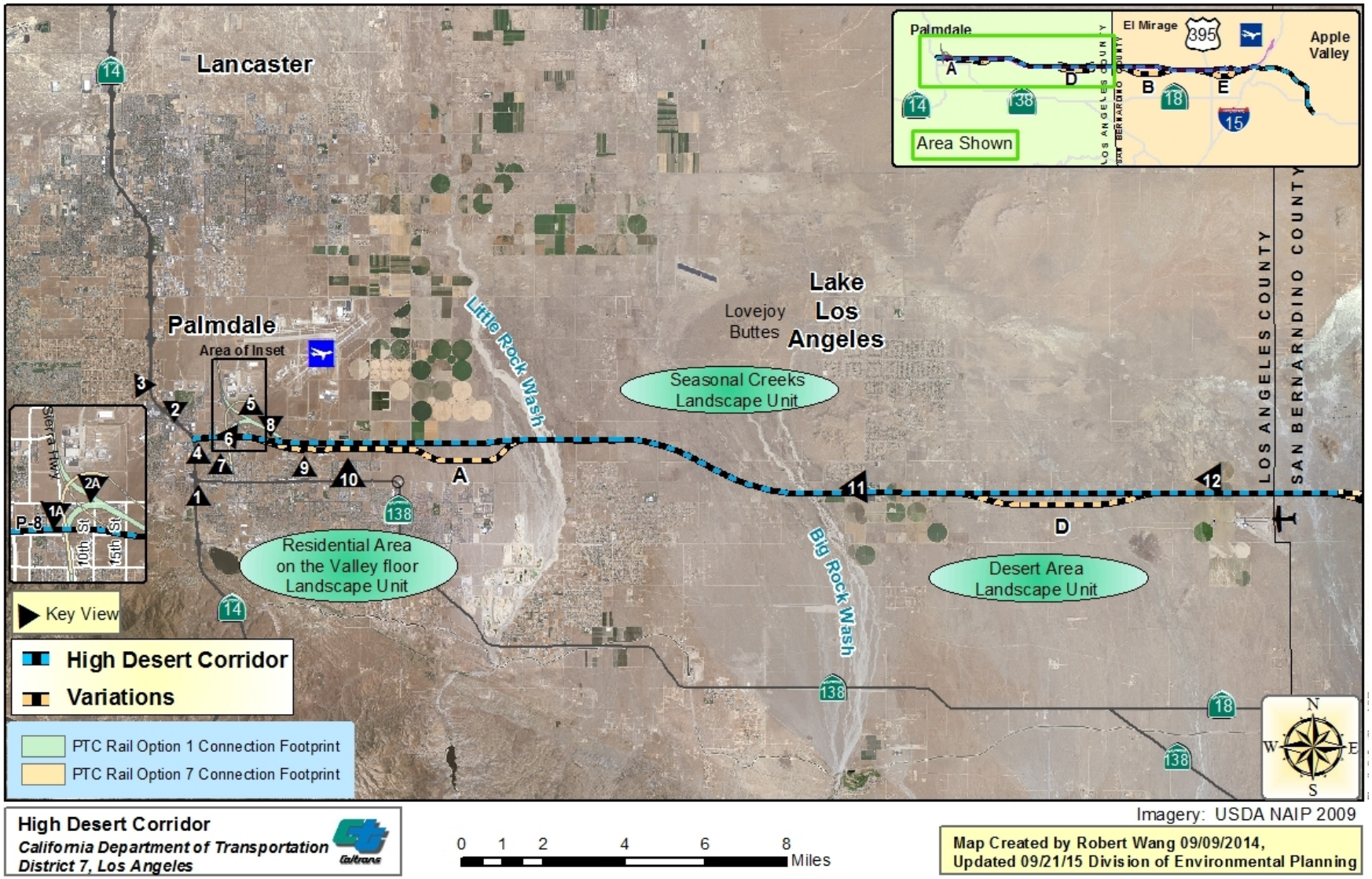


Figure 5. Visual Assessment Units and Key Views: Western portion of the project corridor

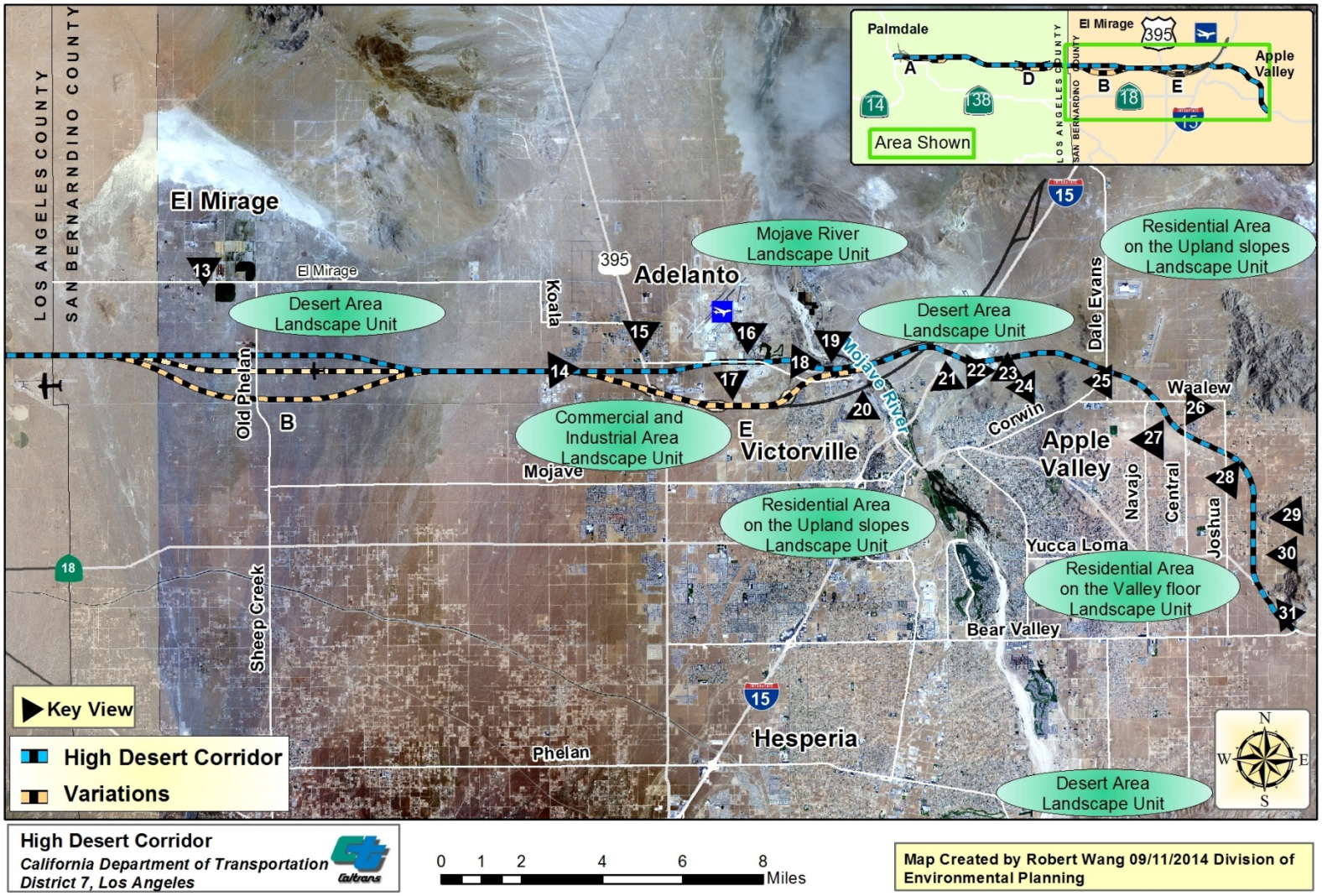


Figure 6. Visual Assessment Units and Key Views: Eastern portion of the project corridor

Key Views

Key views within the various visual assessment units were selected to best demonstrate the possible changes in the project's visual resources. A total of 33 key views were selected, 31 original key views plus two supplemental key views resulting from the analysis of the Palmdale Rail Station variation.

- KV-1 - From SR-14 looking north
- KV-1a - Looking south on Sierra Highway at Technology Dr. (supplemental view for Palmdale Rail Station variation)
- KV-2 - SR-14 southbound where soundwall is proposed
- KV-2a - Looking south at East P and 10th St. (supplemental view for Palmdale Rail Station variation)
- KV-3 -Avenue N looking east toward SR-14
- KV-4 - P-8 and 8th looking north toward HDC
- KV-5 - Looking north at HDC from east Avenue P-4 and 10th St
- KV-6 - SR-14/Avenue P-8 interchange from Avenue P-8 looking west
- KV-7 - From Desert Sands Park at 3rd St E in Palmdale looking north
- KV-8 -Carolside Ave looking south
- KV-9 -20th St looking north
- KV-10 -35th St looking north
- KV-11 –Crossing at Big Rock Wash looking west
- KV-12 -HDC at 240th St looking west
- KV-13 –Panoramic view just east of San Bernardino County Line looking south from El Mirage Rd east of San Bernardino county line
- KV-14 HDC looking east-under utility wires at Air Expressway
- KV-15 Looking south on US-395 towards HDC
- KV-16- Phantom Rd East and Turner Rd looking from Westwinds Golf Course South toward HDC
- KV-17 – Village Dr and Rancho Rd looking south
- KV-18 Looking east from Rockview Park
- KV-19 –National Trails looking south
- KV-20 –National Trails looking north
- KV-21 Looking north from northbound I-15
- KV-22 Looking north along Choco Road alignment
- KV-23 - Choco Rd looking north
- KV-24 - Looking Northeast @Dale Evans Parkway
- KV-25 - Looking Northeast @ Waalew Road
- KV-26 - Looking Southwest @ Central Road
- KV-27 – Looking Northeast @ Joshua and Zuni Road
- KV-28 – Looking Northeast @ Thunderbird Rd at Shirwaun Rd
- KV-29 – Looking west @ Moccasin Road
- KV-30 –Yucca Loma Rd looking west
- KV-31 –Deadman's Point Vista Point

VII. VISUAL RESOURCES AND RESOURCE CHANGE

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

The FHWA states that this method should correlate with public judgments of visual quality well enough to predict those judgments. This approach to evaluating visual quality can also help identify specific methods for mitigating each adverse impact that may occur as a result of a project.

The existence of a broad commonality of public response to visual stimuli has been validated by academic research and forms the basis for the FHWA method of visual quality assessment.

During the development of the assessment method, several sets of evaluative criteria based on relationships between visual components in the landscape were proposed and tested. One set that proved to be useful includes three criteria: vividness, intactness, and unity. These relationships correlate well enough to public judgments of visual quality to predict those judgments. The FHWA concludes that professionals can use these relationships as valid and reliable criteria for evaluative appraisals of visual quality

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

Moderate-Moderate change to the visual resource with moderate viewer response. Impact can be mitigated within five years using conventional practices.

High - A high level of change to the resource or a high level of viewer response to visual change such that design treatments cannot mitigate the impacts. Viewer response level is high. An alternative project design may be required to avoid highly adverse impacts.

Visual Resources

Visual resources of the project setting are defined and identified below by assessing visual character and visual quality in the project corridor.

Visual Character

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

Form - visual mass and shape

Line - edges or linear definition

Color - reflective brightness (i.e. light and dark) and hue (i.e. red, green)

Texture - surface coarseness

Dominance - position, size, or contrast

Scale - apparent size as it relates to the surroundings

Diversity –a variety of visual patterns

Continuity - uninterrupted flow of form, line, color, or textural pattern

The visual character of the proposed project will be somewhat compatible with the existing visual character of the corridor in terms of form which currently exists in the project corridor that is flat open desert, mostly rural with various levels of manmade intrusion. Views are far reaching due to its open, generally flat to gently rolling topography. Therefore there is a moderate to moderate-high rating in terms of form and line. There are distant views of the surrounding mountains influencing visual dominance and scale. At night the sky is usually starry, and is visible here because of the lack of city light pollution. This starry sky adds much to the visual character of color (light and dark). Existing vegetation adds texture to the existing visual character. Diversity is low due to the likeness of color and mostly flat terrain. Of most significance is continuity - uninterrupted flow of form, line, color, or textural pattern that the existing desert provides.

The Alternative analyzed most in depth in this visual impact assessment is the Freeway/ Expressway/ Tollway and High Speed Rail Alternatives. These alternatives will construct a mostly horizontal facility, and so it will not change the visual character, in terms of form and line. Some incompatibilities with the existing visual character are changes to dominance, continuity and scale of the proposed structures. Significant bridges are the viaduct between SR-14 and 10th Street E., the bridges over the Mojave River in Victorville, Little Rock Wash, Big Rock Wash, and High Speer Feeder Rail Way Bridges in Palmdale (especially Option 7). Texture will be changed due to elimination of some existing vegetation. The proposed project would create new sources of light and glare that would adversely affect day and nighttime views in the area, therefore changing the character element of color (light and dark).

Visual Quality

Visual quality is evaluated by identifying the vividness, intactness, and unity present in the project corridor. Public attitudes validate the assessed level of visual quality and predict how changes to the project corridor can affect these attitudes. This process helps identify specific methods for addressing each visual impact that may occur as a result of the project. The three criteria for evaluating visual quality are defined below:

> **Vividness** is the extent to which the landscape is memorable and is associated with distinctive, contrasting, and diverse visual elements.
>
> **Intactness** is the integrity of visual features in the landscape and the extent to which the existing landscape is free from non-typical visual intrusions.
>
> **Unity** is the extent to which all visual elements combine to form a coherent, harmonious visual pattern.

The visual quality of the existing corridor will be altered by the proposed project. The view of the mountains (much of the time snowcapped) in the distance adds to the visual vividness. Intactness is high due to the lack of visually intrusive tall, vertical features in the landscape. The unity of the desert vegetation and color of the desert soil and rock is an important element of the existing visual quality.

The Freeway/ Expressway/ Tollway and High Speed Rail Alternatives will have a moderate to moderate-high effect on the existing visual quality of the area. Structures and soundwalls will block the view of the mountains from some viewpoints. The structures will become the most vivid element in some of those viewpoints. Any vertical or visually imposing elements will disrupt intactness of a viewpoint. Elimination and bisecting of areas of vegetation will affect the unity of the existing corridor

Resource Change

Resource Change of the Freeway/Expressway/Tollway and High Speed Rail Alternatives will have a moderate to moderate-high effect on the existing visual resources of the area. Visual character will change in terms of color, continuity, dominance, scale and texture. Form and line will not change in visual character. Visual quality changes will occur to vividness, intactness and unity.

VIII. VIEWERS AND VIEWER RESPONSE

The population affected by the project is composed of *viewers*. Viewers are people whose views of the landscape may be altered by the proposed project—either because the landscape itself has changed or their perception of the landscape has changed.

Viewers, or more specifically the response viewers have to changes in their visual environment, are one of two variables that determine the extent of visual impacts that will be caused by the construction and operation of the proposed project. The other variable is the change to visual resources discussed earlier in *Section VII Visual Resources and Resource Change*.

Types of Viewers

There are two major types of viewer groups for highway projects: highway neighbors and highway users. Each viewer group has their own particular level of *viewer exposure* and *viewer sensitivity*, resulting in distinct and predictable visual concerns for each group which help to predict their responses to visual changes.

Highway Neighbors (Views *to* the Road)

Highway neighbors are people who have views *to* the road. They can be subdivided into different viewer groups by land use. For example, residential, commercial, industrial, retail, institutional, civic, educational, recreational, and agricultural land uses may generate highway neighbors or viewer groups with distinct reasons for being in the corridor and therefore having distinct responses to changes in visual resources. For this project the following highway neighbors were considered

- **Resident Viewer Group and Pedestrian Viewer Group**. The resident viewer group includes people who may have views of the project area from their homes. The new facility may block views of mountains or expansive desert landscape views for those residents. Some of the residents located at an elevation higher than the freeway have a larger view of the project area. The pedestrian viewer group consists of people walking in the neighborhood. Residents typically have a high concern about the visual effect of the project on the community.
- **Recreational Area Users Viewer Group** The recreational area users viewer group includes park and golf course users as the freeway will be adjacent to a few municipal parks and golf courses including Desert Sands Park (including American Indian Little League baseball fields) and Desert Air Golf Course in Palmdale, Richardson Park and Howard Loy Park in Adelanto, Rock View Park, Westwind Golf Course, Activities Center & Sports Center and Schmidt Park in Victorville and Horseman's Center Park, in Apple Valley. This group is also made up of trail users (bicyclists, hikers, off-road vehicle users, horseback riders, etc.) that use several recreational trails within the HDC project area. Such viewers tend to experience similar, but longer duration, views of the local visual environment than motorists, and they may have high expectations for a scenic experience, particularly on streets or freeways abutting or leading to parks and open space. Those that visit an open space park near a freeway may have concerns about project appearance due to its potential to disrupt their experience of the natural environment.

- **Worker Viewer Group**. The worker user group includes but is not limited to workers at Los Angeles Department of Water and Power (LADWP) electric substation, Southern California Logistics Airport, Victorville Federal Prison, Adelanto Civic offices and so on. Employees working in these buildings would have moderate duration views of the facility. Office workers would likely have a low awareness of the freeway. Those working outside may have a higher awareness of the project appearance.

Highway Users (Views *from* the Road)

Highway users are people who have views *from* the road. They can be subdivided into different viewer groups in two different ways—by mode of travel or by reason for travel. For example, subdividing highway users by mode of travel may yield pedestrians, bicyclists, transit riders, car drivers and passengers, and truck drivers. Dividing highway users or viewer groups by reason for travel creates categories like tourists, commuters, and truckers. It is also possible to use both mode and reason for travel simultaneously, creating a category like *bicycling tourists,* for example. For this project the following highway users were considered

- **Motorist Viewer Group***.* The motorist viewer group consists of commuters, local residents, commercial truck drivers and tourists made up of regional, national and international travelers who come to see the renowned Mojave Desert landscape or passing through on their way to Las Vegas. Motorist awareness of surrounding views varies based on travel speed, purpose of the drive, and visual quality of surrounding views. With frequent travel through the area, commuters are primarily focused on the commute and the task of navigating through traffic. Commuters usually see the views as a secondary focus. Unlike local residents, commuters do not have the same sense of ownership and awareness of views because they do not reside within that environment, they only pass through it. Whereas, commuters and residents gain familiarity with surrounding views through repetitive exposure, tourists have less familiarity with existing views. Yet, because they are generally traveling at a slower pace, they tend to focus more on the visual environment. Passengers in the car are more aware of a wider range of views.

  For the most part, the motorist viewer group along the local streets is anticipated to be regular commuters and residents.
- **High Speed Rail Passenger Viewer Group**. The HSR passenger viewer group consists of commuters and tourists made up of regional, national and international travelers. Part of the train ride experience is enjoying the scenery. Passenger awareness of surrounding views varies based on travel speed and visual quality of surrounding views. The train will move slower upon leaving and entering the stations located in Palmdale and Victorville thereby increasing the exposure time and awareness of the viewer. In the area in between the stations speed will be high (150 mph) so exposure time and awareness will be lessened. Whereas, commuters gain familiarity with surrounding views through repetitive exposure, tourists have less familiarity with existing views.
- **Bicyclist Viewer Group.** The bicyclist viewer group consists of bicycle commuters, resident recreational bicyclist and bicycle tourists. Bicyclists awareness of surrounding views varies based on travel speed, purpose of the ride, and visual quality of surrounding views. With frequent traveling through the area, commuters are primarily focused on the commute and the task of getting to their destination as quickly and safely as possible. Commuters usually see the views as a secondary focus. Unlike local residents, commuters do not have the same sense of ownership and awareness of views because they do not reside within that environment, they only pass through it. Bicycle tourists have less familiarity with existing views and come to see the renowned Mojave Desert landscape. Yet, because bicyclists are generally traveling at a

slower pace, they have a longer duration of views than the motorists or the train passengers regardless of their intent of travel.

Viewer Response

Viewer response is a measure or prediction of the viewer's reaction to changes in the visual environment and has two dimensions as previously mentioned, viewer exposure and viewer sensitivity.

Viewer Exposure

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

- For residents and pedestrians, viewer exposure is high due to their long-term and constant presence in the area. Residents are stationary and usually have more time to take in their surrounding views, and at a fairly leisurely pace. They observe the visual environment on a daily basis and for an extended period of time. They become very familiar with the local environment and may take ownership of it.
- The recreational area users have views for longer period of time than travelers but shorter that resident. Recreationists have varying degrees of exposure to the project area depending on their activities at the various recreational facilities.
- Commercial, industrial, retail, institutional, and civic worker Viewer Group are a very small percentage of the viewers to the road and have low exposure due to their work activity in some cases because of lack of windows or orientation of the buildings to the project area.
- Motorist and Rail Passenger viewer groups' exposure is only a relatively short time span spent along the proposed project area.
- Bicyclists have a longer exposure than motorists or train passengers to the project area.

Viewer Sensitivity

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

To address local values the Department uses "Context Sensitive Solutions" as an approach to plan, design, construct, maintain, and operate its transportation system. These solutions use innovative and inclusive approaches that integrate and balance community, aesthetic, historic, and environmental values with transportation safety, maintenance, and performance goals. Context sensitive solutions are reached through a collaborative, interdisciplinary approach involving all stakeholders.

- For residents and pedestrians, viewer sensitivity is high due to their long-term and constant presence in the area. It is also presumed that in some cases the resident viewer's awareness is also high in the project area because they were likely drawn to this location in part because of the unique view shed of the Mojave Desert.
- Recreational area users will have a high sensitivity of the proposed project features due to the relative scale of small scale park to large scale freeway. Awareness is moderate because the recreational user is engaged in other activities that make their focus less focused.
- Commercial, industrial, retail, institutional, and civic worker Viewer Group Commercial, industrial, retail, institutional, and civic worker Viewer Group are a very small percentage of the viewers to the road and have low sensitivity due to their work activity.
- Motorists and Rail Passengers viewer groups' sensitivity is lower due to the relatively short time span spent along the proposed project area. *Awareness* is moderate for the motorist and Rail Passengers because their focus is wide.
- Bicyclist viewer groups' sensitivity is moderate due to slower speed and longer time span spent along the proposed project area. Awareness is moderate because the Bicyclist is engaged in other riding that makes their focus less specific.

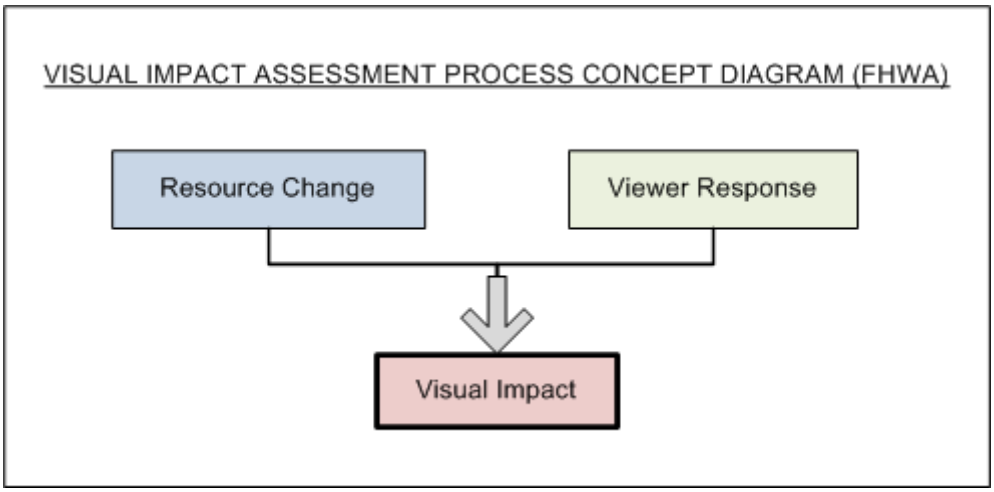
Group Viewer Response

The narrative descriptions of viewer exposure and viewer sensitivity for each viewer group were merged to establish the overall viewer response of each group.

- Residents and pedestrians have a high level of exposure and high level of sensitivity resulting in a high overall viewer response to the visual environment.
- Recreational area users also have a high sensitivity but lower exposure resulting in an overall moderate-high overall viewer response level.
- Commercial, industrial, retail, institutional, and civic worker viewers have a moderate sensitivity and moderate exposure resulting in an overall moderate overall viewer response level.
- Overall viewer response for motorist and high speed rail passengers is low due to a low level of exposure and also sensitivity.
- Bicyclists overall response is moderate due to their somewhat longer exposure and awareness due to their slower speed.

IX. VISUAL IMPACT

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



The table below provides a reference for determining levels of visual impact by combining resource change and v

TABLE #1. Visual Impact Ratings Using Viewer Response and Resource Change

		Viewer Response (VR)				
Resource Change (RC)		Low (L)	Moderate-Low (ML)	Moderate (M)	Moderate-High (MH)	High (H)
	Low (L)	L	ML	ML	M	M
	Moderate-Low (ML)	ML	ML	M	M	MH
	Moderate (M)	ML	M	M	MH	MH
	Moderate-High (MH)	M	M	MH	MH	H
	High (H)	M	MH	MH	H	H

Comparing Numerical Ratings

Many tables are used to support the narratives presented in *Section VII Visual Resource and Resource Change* and *Section VIII Viewers and Viewer Response*. These tables assign numerical values to narrative descriptions, allowing a quantitative or numerical basis for analyzing visual resources and impacts. Each table has its own rating system as described below the sample table shown here.

Each key view will have tables enumerating the visual impact assessment process at that location, therefore the tables for each key view will be filled in with the appropriate value (number) for that particular key view.

The table **Visual Character (Compatibility) Evaluation** provides the average resource change (i.e., compatibility between the existing condition and alternative) for visual character (VC) for all attributes previously identified (e.g., form, line, color, texture, etc.) for the key view noted.

TABLE # **Visual Character (Compatibility) Evaluation for: KV-#**	
Visual Character (Compatibility) Change(VC) =	**value**

VC = a range from -3.0 to +3.0 where -3.0 represents poor compatibility and +3.0 good compatibility

The table **Visual Quality Evaluation** provides individual and average ratings for vividness, intactness, and unity, and summarizes the resource change for visual quality (VQ) between the existing condition and alternative for the key view noted.

TABLE # **Visual Quality Evaluation for: KV-#**				
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**2.0**	**3.5**	**1.7**	**value**
Alternative Rating	**2.3**	**2.3**	**1.3**	**value**
Visual Quality Change (VQ) =				**value**

Existing and Alternative Ratings = a range from 0.0 to 7.0 where 0.0 represents lower visual quality and 7.0 higher visual quality

VQ = numerical difference of the average Existing Rating and average Alternative Rating
If the average for "Alternative Rating" (V+I+U/3) is less than the average for "Existing Rating" (V+I+U/3), the Visual Quality Resource Change or **VQ** will be a negative change.

If the average for "Alternative Rating" is greater than the average for "Existing Rating", the Visual Quality Resource Change or **VQ** will be a positive change.)

The table **Visual Resource Change Rating** summarizes visual character (VC) and visual quality (VQ) changes and averages these resources changes (RC) for the key view noted.

TABLE # **Visual Resource Change Rating for: KV-#**	
Visual Character Change **(VC)** Rating (from table above)	**value**
Visual Quality Change **(VQ)** Rating (from table above)	**value**
Visual Resource Change (RC) = (VC+VQ)/2	**value**

RC = a range from -7.0 to +7.0 where -7.0 is high negative change and +7.0 is high positive change

The table **Comparing Numerical and Narrative Ratings of Visual Resource Change (RC)** provides a reference for comparing numerical ratings of visual resource change to the equivalent narrative ratings in *Section VII Visual Resources and Resource Change*. It is not specific to any one key view.

Comparing Numerical and Narrative Ratings of Visual Resource Change (RC)															
	Negative Visual Resource Change								Positive Visual Resource Change						
(RC) Rating	-7.0	-6.0	-5.0	-4.0	-3.0	-2.0	-1.0	0	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Equivalent Narrative Rating	High	High	Moderately High	Moderate	Moderate	Moderately Low	Low	No Change	Low	Moderately Low	Moderate	Moderate	Moderately High	High	High

The table **Viewer Response Rating** summarizes viewer exposure (E) and viewer sensitivity (S) ratings and averages these viewer response ratings for the key view noted.

TABLE # **Viewer Response Rating for:** **KV-#**	
Viewer Exposure Rating **(E)**	**value**
Viewer Sensitivity Rating **(S)**	**value**
Viewer Response Rating (VR) = **(E+S)/2**	**value**

VR = a range from 0.0 to 7.0. 0.0 represents lower viewer response and 7.0 a higher viewer response

The table **Comparing Numerical and Narrative Ratings of Viewer Response (VR)** provides a reference for comparing numerical ratings of visual resource change to the equivalent narrative ratings in *Section VIII Viewers and Viewer Response*. It is not specific to any one key view.

Comparing Numerical and Narrative Ratings of Viewer Response (VR)								
Viewer Response Numerical Rating (VR)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Equivalent Viewer Response Narrative Rating	Low	Low	Moderate-Low	Moderate	Moderate	Moderate-High	High	High

Visual Impacts by Visual Assessment Unit and Alternative

Because it is not feasible to analyze all the views in which the proposed project would be seen, it is necessary to select a number of key views associated with the visual assessment units that would most clearly demonstrate the change in the project's visual resources. Key views also represent the viewer groups that have the highest potential to be affected by the project considering viewer's exposure and sensitivity. These key views will be analyzed for proposed Freeway/ Expressway/ Tollway and HSR Alternatives.

This VIA also considers the potential impacts of a No-Build Alternative. By not building the new facility visual impacts would not occur.

The following section describes and illustrates visual impacts by visual assessment unit, compares existing conditions to the proposed alternatives, and includes the predicted viewer response.

Residential Area On the Valley Floor Visual Assessment Unit

KEY VIEW (KV) #1–From SR-14 looking north.

KV-#1 Existing Condition

The existing view of an undeveloped area of Palmdale and buildings in the distance is moderate-low in visual quality based on vividness, intactness and unity. The open foreground includes the elements of Desert Area Landscape Unit and a wide expansive view that is unique to the visual character of the desert landscape.

KV-#1 Proposed Condition – All Build Alternatives

Resource Change KV #1

The proposed HDC and SR-14 freeway to freeway interchange will negatively affect visual intactness and unity while slightly increasing the vividness of the view. This would result in a slight lowering of the visual quality. The expansive horizontal character will be changed to include more vertical elements. New sources of light from headlights that are elevated on the flyovers as well as lighting for the interchange would adversely affect nighttime views in the area This contrast of horizontal and vertical elements would be incompatible change in visual character of the proposed view. Overall resource change is low negative change.

Viewer Response

There will be over 100,000 motorist viewers affected by this visual change for short durations. Midground views of the undeveloped area will be changed with the insertion of a freeway to freeway interchange with a connector ramp, large flyover and the 8-lane HDC running perpendicular to the existing SR-14 freeway. Viewer response is expected to be moderate.

TABLE #2. **Visual Character (Compatibility) Evaluation for: KV-#1– All Build Alternatives**	
Visual Character (Compatibility) Change(VC) =	**-1.0**

TABLE #3. **Visual Quality Evaluation for: KV-#1– All Build Alternatives**				
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**2.0**	**3.5**	**1.7**	**2.4**
Alternative Rating	**2.3**	**2.3**	**1.3**	**2.0**
Visual Quality Change (VQ) =				**-0.4**

TABLE #4. **Visual Resource Change Rating for: KV-#1– All Build Alternatives**	
Visual Character Change **(VC)** Rating (from table above)	**-1.0**
Visual Quality Change **(VQ)** Rating (from table above)	**-0.4**
Visual Resource Change (RC) = (VC+VQ)/2	**-0.7**

TABLE #5. **Viewer Response Rating for: KV-#1– All Build Alternatives**	
Viewer Exposure Rating **(E)**	**3.0**
Viewer Sensitivity Rating **(S)**	**3.2**
Viewer Response Rating (VR) = **(E+S)/2**	**3.1**

KEY VIEW (KV) #1a– Looking south on Sierra Highway at Technology Drive (supplemental view for Palmdale Rail Station variation)

KV-#1a Existing Condition

The existing view of the intersection of Technology Drive and Sierra Highway looking south is of an undeveloped parcel, existing rail facilities, and commercial buildings in the foreground. Mid-ground views are of the existing Palmdale Transportation Center. Distant views are of the mountains. The overall view is low to moderate in visual quality.

KV-#1a Proposed Condition – Palmdale Rail Station design variation

Resource Change

The proposed rail station design variation would negatively affect visual intactness and unity while slightly increasing the vividness of the view. This would result in a slight lowering of the visual quality. The expansive horizontal character would be changed to include more vertical elements. Views of the mountain would be blocked by the bridge. New sources of light from headlights that are elevated on the bridge would adversely affect nighttime views in the area. This contrast of horizontal and vertical elements would be an incompatible change in visual character of the proposed view. The overall resource change is low negative change.

Viewer Response

Motorist Viewer Group – The viewer response of the motorist viewer group would be low due to the short duration of exposure. The foreground view would change from undeveloped desert to a view of the bridge over the railway. The mid-ground and distant views of the existing Palmdale Transportation Center and mountains would be blocked by the realigned Sierra Highway over the rail facilities.

Rail Passenger Group – The viewer response of the rail passenger group would be low to both Rail Option 1 and 7, and station variations A, B, and C. Rail Option 1, Station Variation A is depicted in the photograph above.

TABLE #6. **Visual Character (Compatibility) Evaluation for: KV-#1a– Rail Station design variation**	
Visual Character (Compatibility) Change(VC) =	**-1.0**

TABLE #7. **Visual Quality Evaluation for: KV-#1a– Rail Station design variation**				
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**2.0**	**3.5**	**1.7**	**2.4**
Alternative Rating	**2.3**	**2.3**	**1.3**	**2.0**
Visual Quality Change (VQ) =				**-0.4**

TABLE #8. **Visual Resource Change Rating for: KV-#1a– Rail Station design variation**	
Visual Character Change **(VC)** Rating (from table above)	**-1.0**
Visual Quality Change **(VQ)** Rating (from table above)	**-0.4**
Visual Resource Change (RC) = (VC+VQ)/2	**-0.7**

TABLE #9. **Viewer Response Rating for: KV-#1a– Rail Station design variation**	
Viewer Exposure Rating **(E)**	**3.0**
Viewer Sensitivity Rating **(S)**	**3.2**
Viewer Response Rating (VR) = **(E+S)/2**	**3.1**

Residential Area on the Valley Floor Visual Assessment Unit

KEY VIEW (KV) #2 – SR-14 southbound where soundwall is proposed

KV-#2 Existing Condition

The existing view of a residential neighborhood and hotels in Palmdale and mountains in the distance is moderate-low in visual quality based on vividness, intactness and unity. The wide expansive view that is unique to the visual character of the desert landscape.

KV-#2 Proposed Condition – All Build Alternatives

Resource Change

The proposed soundwall will negatively affect visual intactness and unity while slightly increasing the vividness of the view. This would result in a slight lowering of the visual quality. The expansive horizontal character will be changed to include more vertical elements. This contrast of horizontal and vertical elements would be incompatible with the visual character of the proposed view. Overall resource change is low negative change.

Viewer Response

There will be over 100,000 motorist viewers affected by this visual change for short durations. Midground views of the trees, hotel buildings and houses will be blocked by the soundwall. Viewer response is expected to be moderate.

TABLE #10. Visual Character (Compatibility) Evaluation for: KV-#2– All Build Alternatives	
Visual Character (Compatibility) Change(VC) =	**-1.5**

TABLE #11. Visual Quality Evaluation for: KV-#2– All Build Alternatives				
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**3.7**	**3.2**	**3.2**	**3.4**
Alternative Rating	**2.0**	**1.3**	**1.5**	**1.7**
Visual Quality Change (VQ) =				**-1.7**

TABLE #12. Visual Resource Change Rating for: KV-#2– All Build Alternatives	
Visual Character Change **(VC)** Rating (from table above)	**-1.5**
Visual Quality Change **(VQ)** Rating (from table above)	**-1.7**
Visual Resource Change (RC) = (VC+VQ)/2	**-1.6**

TABLE #13. Viewer Response Rating for: KV-#2– All Build Alternatives	
Viewer Exposure Rating **(E)**	**4.0**
Viewer Sensitivity Rating **(S)**	**4.3**
Viewer Response Rating (VR) = **(E+S)/2**	**4.15**

Residential Area on the Valley Floor Visual Assessment Unit

KEY VIEW (KV) #2a – Looking south at East P and 10th St. (supplemental view for Palmdale Rail Station variation)

KV-#2a Existing Condition

The existing view of the intersection of 10th Street East/East Avenue P shows undeveloped desert and a local roadway. Mountain views are in the distance. This viewpoint is seen by residents traveling to and from their homes located adjacent to 10th Street East, south of East Avenue P. The overall view is low to moderate in visual quality.

KV-#2a Proposed Condition – Rail Option 7, station variations A, B, and C

Resource Change

The proposed 40-foot high rail structure would negatively affect visual intactness, unity and vividness of the view. This would result in a lowering of the visual quality. The view of the mountains will be mostly blocked. The addition of rectilinear elements would be incompatible with the visual character of the proposed view. Overall resource change is negative change.

Viewer Response

Resident Viewer Group – The viewer response of the resident viewer group would be moderate to high. For Rail Option 1, station variations A, B, and C the response would be moderate since the rail facility would be below existing grade.

The viewer response for Rail Option 7, station variations A, B, and C would be moderate-high with the addition of a 40-foot high rail structure. Distant views of the mountains and sense of openness would be blocked by the rail structure.

TABLE #14. **Visual Character (Compatibility) Evaluation for: KV-#2a– Rail Option 7, station variations A, B, and C**	
Visual Character (Compatibility) Change(VC) =	**-2.0**

TABLE #15. **Visual Quality Evaluation for: KV-#2a– Rail Option 7, station variations A, B, and C**				
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**6.0**	**5.8**	**5.9**	**5.9**
Alternative Rating	**4.5**	**1.5**	**1.5**	**2.5**
Visual Quality Change (VQ) =				**-3.4**

TABLE #16. **Visual Resource Change Rating for: KV-#2a– Rail Option 7, station variations A, B, and C**	
Visual Character Change **(VC)** Rating (from table above)	**-2.0**
Visual Quality Change **(VQ)** Rating (from table above)	**-3.4**
Visual Resource Change (RC) = (VC+VQ)/2	**-2.7**

TABLE #17. **Viewer Response Rating for: KV-#2a– Rail Option 7, station variations A, B, and C**	
Viewer Exposure Rating **(E)**	**4.7**
Viewer Sensitivity Rating **(S)**	**5.0**
Viewer Response Rating (VR) = **(E+S)/2**	**4.85**

Residential Area on the Valley Floor Visual Assessment Unit

KEY VIEW (KV) #3 – Avenue N looking east toward SR-14

KV-#3 Existing Condition

The existing view from a neighborhood arterial (Avenue N) in Palmdale has a mid-ground view of the SR-14 freeway with the cars and trucks driving by and treetops and mountains in the distance is moderate-low in visual quality based on vividness, intactness and unity.

KV-#3 Proposed Condition – All Build Alternatives

Resource Change

The proposed realigned on ramp will lightly increase visual vividness, intactness and unity of the view. This would result in a slight heightening of the visual quality. Visual Character elements such as form, line and diversity decrease in compatibility while dominance and scale increase. This would make the visual character of the proposed view slightly less compatible from existing. Overall resource change is low positive change.

Viewer Response

There will be a small number of resident viewers affected by this visual change for long durations. There will be a higher number of motorist viewers affected by this visual change for short durations. A small number of trees and houses will be removed from the view. Viewer response is expected to be moderate-high.

TABLE #18.	
Visual Character (Compatibility) Evaluation for: KV-#3– All Build Alternatives	
Visual Character (Compatibility) Change(VC) =	**-0.4**

TABLE #19.				
Visual Quality Evaluation for: KV-#3– All Build Alternatives				
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**3.7**	**3.5**	**3.5**	**3.6**
Alternative Rating	**3.9**	**4.0**	**3.9**	**3.9**
Visual Quality Change (VQ) =				**0.3**

TABLE #20.	
Visual Resource Change Rating for: KV-#3– All Build Alternatives	
Visual Character Change **(VC)** Rating (from table above)	**-0.7**
Visual Quality Change **(VQ)** Rating (from table above)	**0.3**
Visual Resource Change (RC) = (VC+VQ)/2	**0.5**

TABLE #21.	
Viewer Response Rating for: KV-#3– All Build Alternatives	
Viewer Exposure Rating **(E)**	**4.1**
Viewer Sensitivity Rating **(S)**	**3.3**
Viewer Response Rating (VR) = **(E+S)/2**	**3.7**

Residential Area on the Valley Floor Visual Assessment Unit

KEY VIEW (KV) #4 – P-8 and 8th looking north toward HDC

KV-#4 Existing Condition

The existing landform at this viewpoint is flat with open desert landscape and manmade elements. In the background is the Palmdale Airport is moderate-low in visual quality based on vividness, intactness and unity.

KV-4 Proposed Condition – All Freeway w/ HSR Alternatives/ Option 1 of High Speed Rail Wye Connection

KV-4 Proposed Condition – All Freeway w/ HSR Alternatives/ Option 7 of High Speed Rail Wye Connection

Resource Change

The proposed bridge will positively affect visual vividness but negatively affect intactness and unity of the view. This would result in a slight heightening of the visual quality. Visual Character of the proposed view will decrease in compatibility. Overall resource change is low negative change.

Viewer Response

There will be a small number of resident viewers affected by this visual change for long durations. Distant views of the mountains and sense of openness will be blocked by the new bridge and roadway. Viewer response is expected to be moderate.

TABLE #22. **Visual Character (Compatibility) Evaluation for: KV-#4– All Freeway w/ HSR Alternatives/ Option 1 of High Speed Rail Wye Connection**	
Visual Character (Compatibility) Change(VC) =	**-1.3**

TABLE #23. **Visual Quality Evaluation for: KV-#4– All Freeway w/ HSR Alternatives/ Option 1 of High Speed Rail Wye Connection**				
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**2.7**	**3.0**	**2.7**	**2.9**
Alternative Rating	**1.2**	**2.0**	**2.0**	**1.7**
Visual Quality Change (VQ) =				**-1.2**

TABLE #24. **Visual Resource Change Rating for: KV-#4– All Freeway w/ HSR Alternatives/ Option 1 of High Speed Rail Wye Connection**	
Visual Character Change **(VC)** Rating (from table above)	**-1.3**
Visual Quality Change **(VQ)** Rating (from table above)	**-1.2**
Visual Resource Change (RC) = (VC+VQ)/2	**-1.25**

TABLE #25. **Viewer Response Rating for: KV-#4– All Freeway w/ HSR Alternatives/ Option 1 of High Speed Rail Wye Connection**	
Viewer Exposure Rating **(E)**	**3.9**
Viewer Sensitivity Rating **(S)**	**3.8**
Viewer Response Rating (VR) = **(E+S)/2**	**3.85**

TABLE #26. **Visual Character (Compatibility) Evaluation for: KV-#4– All Freeway w/ HSR Alternatives/ Option 7 of High Speed Rail Wye Connection**	
Visual Character (Compatibility) Change(VC) =	**-1.3**

TABLE #27. **Visual Quality Evaluation for: KV-#4– All Freeway w/ HSR Alternatives/ Option 7 of High Speed Rail Wye Connection**				
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**2.7**	**3.0**	**3.3**	**2.9**
Alternative Rating	**1.2**	**2.2**	**2.2**	**1.7**
Visual Quality Change (VQ) =				**-1.2**

TABLE #28. **Visual Resource Change Rating for: KV-#4– All Freeway w/ HSR Alternatives/ Option 7 of High Speed Rail Wye Connection**	
Visual Character Change **(VC)** Rating (from table above)	**-1.3**
Visual Quality Change **(VQ)** Rating (from table above)	**-1.2**
Visual Resource Change (RC) = (VC+VQ)/2	**-1.25**

TABLE #29. **Viewer Response Rating for: KV-#4– All Freeway w/ HSR Alternatives/ Option 7 of High Speed Rail Wye Connection**	
Viewer Exposure Rating **(E)**	**3.9**
Viewer Sensitivity Rating **(S)**	**3.8**
Viewer Response Rating (VR) = **(E+S)/2**	**3.85**

Residential Area on the Valley Floor Visual Assessment Unit

KEY VIEW (KV) 5# – Looking north at HDC from east Avenue P-4 and 10th St.

KV-5# Existing Condition

The existing view from a residential neighborhood in Palmdale which has a distant view of the hills in the distance is moderate-low in visual quality based on vividness, intactness and unity.

KV-5 Proposed Condition – All Freeway w/ HSR Alternatives/ Option 7 of HSR Wye Connection

Resource Change

The proposed HSR bridge will negatively affect visual intactness and unity of the view while vividness will increase, especially in terms of manmade elements. Many houses and trees will need to be removed. This would result in a lowering of the visual quality. Visual Character of the proposed view will decrease in compatibility. Overall resource change is low negative change.

Viewer Response

There will be resident viewers affected by this visual change for long durations. Distant views of the mountains and sense of openness will be blocked by the large HSR bridge. Viewer response is expected to be high.

TABLE #30.	
Visual Character (Compatibility) Evaluation for:	**KV-#5– HSR Wye Connection Option 7**
Visual Character (Compatibility) Change(VC) =	**-1.3**

TABLE #31.				
Visual Quality Evaluation for:			**KV-#5– HSR Wye Connection Option 7**	
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**3.3**	**2.3**	**2.1**	**2.6**
Alternative Rating	**3.7**	**1.0**	**1.5**	**2.1**
Visual Quality Change (VQ) =				**-0.5**

TABLE #32.	
Visual Resource Change Rating for:	**KV-#5– HSR Wye Connection Option 7**
Visual Character Change **(VC)** Rating (from table above)	**-1.3**
Visual Quality Change **(VQ)** Rating (from table above)	**-0.5**
Visual Resource Change (RC) = (VC+VQ)/2	**-0.9**

TABLE #33.	
Viewer Response Rating for:	**KV-#5– HSR Wye Connection Option 7**
Viewer Exposure Rating **(E)**	**5.5**
Viewer Sensitivity Rating **(S)**	**5.5**
Viewer Response Rating (VR) = **(E+S)/2**	**5.5**

Residential Area on the Valley Floor Visual Assessment Unit

KEY VIEW (KV) 6# –SR-14/Avenue P-8 interchange from Avenue P-8 looking west.

KV-6# Existing Condition

The existing view of an undeveloped area of Palmdale and SR-14 freeway overcrossing in the distance is moderate in visual quality based on vividness, intactness and unity. The open foreground includes the elements of Desert Area Landscape Unit and a wide expansive view that is unique to the visual character of the desert landscape.

KV-6 Proposed Condition – All Build Alternatives

Resource Change

The proposed HDC and SR-14 freeway to freeway interchange will negatively affect visual vividness, intactness and unity of the view. This would result in a lowering of the visual quality. The color and texture of the desert landscape will be changed to include more smooth paved elements. This lack of color or texture would be incompatible with the visual character of the proposed view. Overall resource change is moderate negative change.

Viewer Response

There will be over 100,000 motorist viewers affected by this visual change for short durations. Midground views of the undeveloped area will be changed with the widening of the existing road to 8 lanes and the background altered by the insertion of a freeway to freeway interchange with a connector ramp. Viewer response is expected to be moderate.

TABLE #34.	
Visual Character (Compatibility) Evaluation for:	**KV-#6– All Build Alternatives**
Visual Character (Compatibility) Change(VC) =	**-1.3**

TABLE #35.				
Visual Quality Evaluation for:			**KV-#6– All Build Alternatives**	
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**5.6**	**4.7**	**4.7**	**5.0**
Alternative Rating	**3.3**	**2.0**	**2.0**	**2.4**
Visual Quality Change (VQ) =				**-2.6**

TABLE #36.	
Visual Resource Change Rating for:	**KV-#6– All Build Alternatives**
Visual Character Change **(VC)** Rating (from table above)	**-1.3**
Visual Quality Change **(VQ)** Rating (from table above)	**-2.6**
Visual Resource Change (RC) = (VC+VQ)/2	**-2.0**

TABLE #37.	
Viewer Response Rating for:	**KV-#6– All Build Alternatives**
Viewer Exposure Rating **(E)**	**3.4**
Viewer Sensitivity Rating **(S)**	**4.6**
Viewer Response Rating (VR) = **(E+S)/2**	**4.0**

Residential Area on the Valley Floor Visual Assessment Unit

KEY VIEW (KV) 7# –View from Desert Sands Park at 3rd St E in Palmdale looking north.

KV-7# Existing Condition

The existing view from Desert Sands Park of an undeveloped area of Palmdale and trees and houses in the distance is moderate in visual quality based on vividness, intactness and unity. The open area includes the elements of Desert Area Landscape Unit. There is a lot of vegetation that adds to intactness and unity to the view.

KV-#7 Proposed Condition – All Build Alternatives

Resource Change

The proposed roadway alignment will be 20 feet above existing grade and will negatively affect visual intactness and unity of the view by blocking some of the vegetation. Vividness will remain the same. This would result in a slight lowering of the visual quality. Visual Character of the proposed view will decrease in compatibility. Overall resource change is low negative change.

Viewer Response

There will be recreational area users, from Desert Sand Park and American Indian Little League baseball fields affected by this visual change. There will be a small number of resident viewers af-

fected by this visual change for long durations. Distant views of the trees and houses will be somewhat blocked by the new roadway. Viewer response is expected to be moderate.

TABLE #38.	
Visual Character (Compatibility) Evaluation for:	**KV-#7– All Build Alternatives**
Visual Character (Compatibility) Change(VC) =	**-1.3**

TABLE #39.				
Visual Quality Evaluation for:			**KV-#7– All Build Alternatives**	
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**3.3**	**4.0**	**4.0**	**3.8**
Alternative Rating	**3.0**	**2.6**	**1.7**	**2.4**
Visual Quality Change (VQ) =				**-1.4**

TABLE #40.	
Visual Resource Change Rating for:	**KV-#7– All Build Alternatives**
Visual Character Change **(VC)** Rating (from table above)	**-1.3**
Visual Quality Change **(VQ)** Rating (from table above)	**-1.4**
Visual Resource Change (RC) = (VC+VQ)/2	**-1.4**

TABLE #41.	
Viewer Response Rating for:	**KV-#7– All Build Alternatives**
Viewer Exposure Rating **(E)**	**4.0**
Viewer Sensitivity Rating **(S)**	**4.5**
Viewer Response Rating (VR) = **(E+S)/2**	**4.3**

Residential Area on the Valley Floor Visual Assessment Unit

KEY VIEW (KV) 8# – Carolside Avenue looking south.

KV-8# Existing Condition

The existing view from a residential neighborhood in Palmdale of empty lots in the mid-ground and trees and mountains in the distance is moderate-low in visual quality based on vividness, intactness and unity.

KV-8 Proposed Condition – All Build Alternatives

Resource Change

The proposed soundwall will negatively affect visual intactness, vividness and unity of the view. This would result in a lowering of the visual quality. Visual Character of the proposed view will decrease in compatibility. Overall resource change is low negative change.

Viewer Response

There will be a small number of resident viewers affected by this visual change for long durations. Distant views of the trees and most of the mountains and the sense of openness will be blocked by the soundwall. Viewer response is expected to be low.

TABLE #42.	
Visual Character (Compatibility) Evaluation for:	**KV-#8– All Build Alternatives**
Visual Character (Compatibility) Change(VC) =	**-2.8**

TABLE #43.				
Visual Quality Evaluation for:			**KV-#8– All Build Alternatives**	
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**3.0**	**2.3**	**2.3**	**2.5**
Alternative Rating	**2.3**	**2.0**	**2.0**	**2.1**
Visual Quality Change (VQ) =				**-0.4**

TABLE #44.	
Visual Resource Change Rating for:	**KV-#8– All Build Alternatives**
Visual Character Change **(VC)** Rating (from table above)	**-2.8**
Visual Quality Change **(VQ)** Rating (from table above)	**-0.4**
Visual Resource Change (RC) = (VC+VQ)/2	**-1.6**

TABLE #45.	
Viewer Response Rating for:	**KV-#8– All Build Alternatives**
Viewer Exposure Rating **(E)**	**4.3**
Viewer Sensitivity Rating **(S)**	**4.7**
Viewer Response Rating (VR) = **(E+S)/2**	**4.5**

Residential Area on the Valley Floor Visual Assessment Unit

KEY VIEW (KV) 9# – 20th St looking north.

KV-9# Existing Condition

The existing landform at this viewpoint is flat with open desert landscape and manmade elements. In the background is the Palmdale Airport. The existing view is moderate in visual quality based on vividness, intactness and unity.

KV-9 Proposed Condition – All Build Alternatives

Resource Change

The proposed overcrossing bridge structure and local interchange with on and off ramps will negatively affect visual intactness and unity while slightly increasing the vividness of the view. This would result in a slight lowering of the visual quality. The horizontal character will be changed to include more vertical elements. This contrast of horizontal and vertical elements would be incompatible with the visual character of the proposed view. New sources of light from headlights that are elevated on the bridge as well as lighting for the interchange would adversely affect nighttime views in the area. Overall resource change is low negative change.

Viewer Response

There will be primarily motorist viewers affected by this visual change for short durations. Mid-ground views of the undeveloped area will be changed with the insertion of an overcrossing bridge structure and local interchange with on and off ramps. Viewer response is expected to be moderate.

TABLE #46.	
Visual Character (Compatibility) Evaluation for: KV-#9– All Build Alternatives	
Visual Character (Compatibility) Change(VC) =	**-2.5**

TABLE #47.				
Visual Quality Evaluation for: KV-#9– All Build Alternatives				
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**3.0**	**3.0**	**2.5**	**2.8**
Alternative Rating	**4.3**	**1.0**	**2.0**	**2.4**
Visual Quality Change (VQ) =				**-0.4**

TABLE #48.	
Visual Resource Change Rating for: KV-#9– All Build Alternatives	
Visual Character Change **(VC)** Rating (from table above)	**-2.5**
Visual Quality Change **(VQ)** Rating (from table above)	**-0.4**
Visual Resource Change (RC) = (VC+VQ)/2	**-1.5**

TABLE #49.	
Viewer Response Rating for: KV-#9– All Build Alternatives	
Viewer Exposure Rating **(E)**	**5.3**
Viewer Sensitivity Rating **(S)**	**4.5**
Viewer Response Rating (VR) = **(E+S)/2**	**4.9**

Residential Area on the Valley Floor Visual Assessment Unit

KEY VIEW (KV) 10# – 35th St looking north

KV-10# Existing Condition

The existing view from the neighborhood of an undeveloped area of Palmdale, trees and houses with mountains in the distance is moderate in visual quality based on vividness, intactness and unity. The open area includes the elements of Desert Area Landscape Unit. There is a lot of open area that adds to intactness and unity to the view.

KV-#10 Proposed Condition – All Freeway w/ HSR Alternatives

Resource Change

The proposed roadway alignment will be6 feet above existing grade and will negatively affect visual intactness and unity of the view by blocking some of the vegetation. Vividness will decrease slightly. This would result in a slight lowering of the visual quality. Visual Character of the proposed view will decrease slightly in compatibility. Overall resource change is low negative change.

Viewer Response

There will be a small number of resident viewers affected by this visual change for long durations. Desert Air Golf course is in this area and so there will be recreational area users from that facility that will be affected by this visual change. Distant views of the trees and mountains will be somewhat blocked by the new roadway. Viewer response is expected to be moderate to moderate high.

TABLE #50. Visual Character (Compatibility) Evaluation for: KV-#10– All Freeway w/ HSR Alternatives	
Visual Character (Compatibility) Change(VC) =	**-1.1**

TABLE #51. Visual Quality Evaluation for: KV-#10– All Freeway w/ HSR Alternatives				
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**3.0**	**3.3**	**3.3**	**3.2**
Alternative Rating	**2.0**	**1.7**	**1.7**	**1.8**
Visual Quality Change (VQ) =				**-1.4**

TABLE #52. Visual Resource Change Rating for: KV-#10– All Freeway w/ HSR Alternatives	
Visual Character Change **(VC)** Rating (from table above)	**-1.1**
Visual Quality Change **(VQ)** Rating (from table above)	**-1.4**
Visual Resource Change (RC) = (VC+VQ)/2	**-1.3**

TABLE #53. Viewer Response Rating for: KV-#10– All Freeway w/ HSR Alternatives	
Viewer Exposure Rating **(E)**	**5.3**
Viewer Sensitivity Rating **(S)**	**4.5**
Viewer Response Rating (VR) = **(E+S)/2**	**4.9**

Seasonal Creeks Visual Assessment Unit

KEY VIEW (KV) #11– Crossing at Big Rock Wash looking west

KV-#11 Existing Condition

The existing view of Big Rock Wash has large riparian trees as its most vivid element. There is water and sand in the foreground and mid-ground. The visual quality based on vividness, intactness and unity is moderate to moderate-high. The area is in the Seasonal Creeks Landscape Unit. There is a lot of open area that adds to intactness and unity to the view.

KV-#11 Proposed Condition – All Freeway w/ HSR Alternatives

Resource Change

The proposed bridge structure with roadway, train tracks and bike path will negatively affect visual vividness, intactness and especially unity of the view. The cars and trains will add new sources of light and glare that would adversely affect day and nighttime views in the area. This would result in a slight lowering of the visual quality. The natural character will be changed to include more manmade elements. This introduction of large manmade elements would be incompatible with the visual character of the proposed view. Overall resource change is moderate negative change.

Viewer Response

The primary viewers of the change at this location will be motorist, rail passengers and bicyclist. Manmade elements will become dominant in this mostly natural location. Views of the trees and water will be obstructed and overwhelmed by the new roadway, bridge, train tracks and bike path. Viewer response is expected to be moderate.

TABLE #54. Visual Character (Compatibility) Evaluation for: KV-#11– All Freeway w/ HSR Alternatives	
Visual Character (Compatibility) Change(VC) =	**-2.7**

TABLE #55. Visual Quality Evaluation for: KV-#11– All Freeway w/ HSR Alternatives				
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**4.3**	**4.7**	**4.3**	**4.4**
Alternative Rating	**2.3**	**3.0**	**2.3**	**2.5**
Visual Quality Change (VQ) =				**-1.9**

TABLE #56. Visual Resource Change Rating for: KV-#11– All Freeway w/ HSR Alternatives	
Visual Character Change **(VC)** Rating (from table above)	**-3.0**
Visual Quality Change **(VQ)** Rating (from table above)	**-1.9**
Visual Resource Change (RC) = (VC+VQ)/2	**-2.5**

TABLE #57. Viewer Response Rating for: KV-#11– All Freeway w/ HSR Alternatives	
Viewer Exposure Rating **(E)**	**3.2**
Viewer Sensitivity Rating **(S)**	**3.8**
Viewer Response Rating (VR) = **(E+S)/2**	**3.5**

Desert Area Visual Assessment Unit

KEY VIEW (KV) #12 – HDC at 240th St looking west

KV-#12 Existing Condition

The existing view of the desert with large buttes in the mid-ground and mountains in the back ground based on vividness, intactness and unity are moderate. The buttes and the mountains are the most vivid elements in this view. The large amount of open area adds to intactness and unity to the view.

KV-#12 Proposed Condition – All Freeway w/ HSR Alternatives

Resource Change

The proposed roadway, train tracks and bike path will negatively affect visual vividness, intactness and especially unity of the view. The cars and trains will add new sources of light and glare that would adversely affect day and nighttime views in the area. This would result in a slight lowering of the visual quality. The natural character will be changed to include more manmade elements. This introduction of large manmade elements would be incompatible with the visual character of the proposed view. Overall resource change is moderate-low negative change.

Viewer Response

The primary viewers of the change at this location will be motorist, rail passengers and bicyclist. Manmade elements will become dominant in the mostly natural location. Views of the buttes and

open land will be obstructed and overwhelmed by the new roadway, train tracks and bike path. Viewer response is expected to be moderate.

TABLE #58. **Visual Character (Compatibility) Evaluation for: KV-#12– All Freeway w/ HSR Alternatives**	
Visual Character (Compatibility) Change(VC) =	**-2.1**

TABLE #59. **Visual Quality Evaluation for: KV-#12– All Freeway w/ HSR Alternatives**				
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**2.6**	**3.3**	**3.3**	**3.1**
Alternative Rating	**1.7**	**2.0**	**2.0**	**1.9**
Visual Quality Change (VQ) =				**-1.2**

TABLE #60. **Visual Resource Change Rating for: KV-#12– All Freeway w/ HSR Alternatives**	
Visual Character Change **(VC)** Rating (from table above)	**-2.1**
Visual Quality Change **(VQ)** Rating (from table above)	**-1.2**
Visual Resource Change (RC) = (VC+VQ)/2	**-1.7**

TABLE #61. **Viewer Response Rating for: KV-#12– All Freeway w/ HSR Alternatives**	
Viewer Exposure Rating **(E)**	**3.7**
Viewer Sensitivity Rating **(S)**	**4.5**
Viewer Response Rating (VR) = **(E+S)/2**	**4.1**

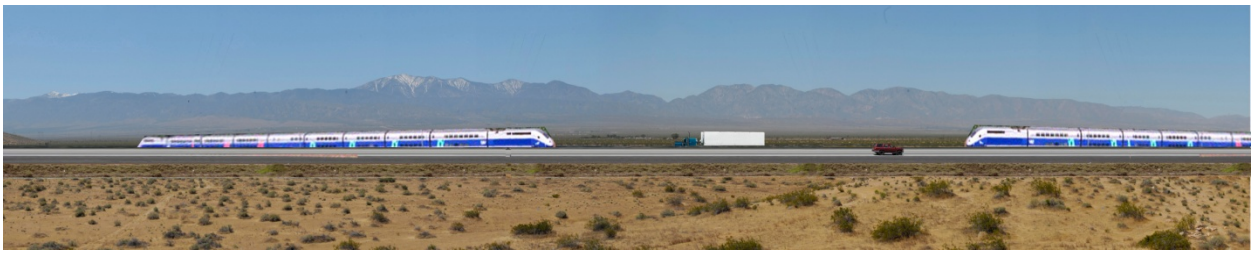
Desert Area Visual Assessment Unit

KEY VIEW (KV) #13 – A panoramic view just east of San Bernardino County line looking south from El Mirage Rd.

KV-#13 Existing Condition

The existing view of the desert with sagebrush vegetation and two residential lots (middle and right bunch of trees) in the mid-ground and mountains in the back ground based on vividness, intactness and unity the Visual quality rating is high. The mountains are the most vivid elements in this view. The large amount of open area adds to intactness and unity to the view.

KV-#13 Proposed Condition – All Freeway w/ HSR Alternatives



Resource Change

The proposed roadway, train tracks and bike path will negatively affect visual vividness, intactness and unity of the view. The cars and trains will add new sources of light and glare that would adversely affect day and nighttime views in the area. This would result in a slight lowering of the visual quality. The natural character will be changed to include more manmade elements. This introduction of large manmade elements would make the visual character of the proposed view greatly decrease in compatibility. Overall resource change is moderate-low negative change

Viewer Response

The primary viewers of the change at this location will be motorist, rail passengers, bicyclist and a small amount of residents. Manmade elements will become dominant in the mostly natural location. Views of the vegetation open land will be obstructed and overwhelmed by the new roadway, train tracks and bike path. Viewer response is expected to be moderate.

TABLE #62. Visual Character (Compatibility) Evaluation for: KV-#13– All Freeway w/ HSR Alternatives	
Visual Character (Compatibility) Change(VC) =	**-1.9**

TABLE #63. Visual Quality Evaluation for: KV-#13– All Freeway w/ HSR Alternatives				
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**5.0**	**6.3**	**6.0**	**5.8**
Alternative Rating	**4.0**	**3.7**	**3.7**	**3.8**
Visual Quality Change (VQ) =				**-2.0**

TABLE #64. Visual Resource Change Rating for: KV-#13– All Freeway w/ HSR Alternatives	
Visual Character Change **(VC)** Rating (from table above)	**-1.9**
Visual Quality Change **(VQ)** Rating (from table above)	**-2.0**
Visual Resource Change (RC) = (VC+VQ)/2	**-2.0**

TABLE #65. Viewer Response Rating for: KV-#13– All Freeway w/ HSR Alternatives	
Viewer Exposure Rating **(E)**	**3.6**
Viewer Sensitivity Rating **(S)**	**4.4**
Viewer Response Rating (VR) = **(E+S)/2**	**4.0**

Desert Area Visual Assessment Unit

KEY VIEW (KV) #14 – HDC looking east under utility wires along Air Expressway

KV-#14 Existing Condition

The existing view of the desert with sagebrush and Joshua trees, high voltage electrical power lines and mountains in the far off background based on vividness, intactness and unity the visual quality rating is moderate to moderate-high.

KV-#14 Proposed Condition – All Freeway w/ HSR Alternatives

Resource Change

The proposed roadway, train tracks and bike path will negatively affect visual intactness and unity of the view. This would result in a slight lowering of the visual quality. The visual character will be changed to include more manmade elements. This introduction of large manmade elements would make the Visual Character of the proposed view slightly decrease in compatibility Overall resource change is moderate-low negative change

Viewer Response

The primary viewers of the change at this location will be motorist, rail passengers, bicyclist and a small amount of residents. Though manmade elements currently exist more manmade elements will become dominant in this location. Views of the vegetated open land will be obstructed and overwhelmed by the new roadway, train tracks and bike path. Viewer response is expected to be moderate.

TABLE #66. **Visual Character (Compatibility) Evaluation for: KV-#14– All Freeway w/ HSR Alternatives**	
Visual Character (Compatibility) Change(VC) =	**-1.0**

TABLE #67. **Visual Quality Evaluation for: KV-#14– All Freeway w/ HSR Alternatives**				
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**5.0**	**4.7**	**3.7**	**4.5**
Alternative Rating	**3.0**	**2.6**	**2.0**	**2.5**
Visual Quality Change (VQ) =				**-2.0**

TABLE #68. **Visual Resource Change Rating for: KV-#14– All Freeway w/ HSR Alternatives**	
Visual Character Change **(VC)** Rating (from table above)	**-1.0**
Visual Quality Change **(VQ)** Rating (from table above)	**-2.0**
Visual Resource Change (RC) = (VC+VQ)/2	**-1.5**

TABLE #69. **Viewer Response Rating for: KV-#14– All Freeway w/ HSR Alternatives**	
Viewer Exposure Rating **(E)**	**4.0**
Viewer Sensitivity Rating **(S)**	**4.0**
Viewer Response Rating (VR) = **(E+S)/2**	**4.0**

Desert Area Visual Assessment Unit

KEY VIEW (KV) #15 – Looking south on US-395 towards HDC

KV-#15 Existing Condition

The existing view of US-395 looking south with sagebrush vegetation and mountains in the back ground based on vividness, intactness and unity the visual quality rating is moderate. The mountains are the most vivid elements in this view. The large amount of open area adds to intactness and unity of the view.

KV-#15 Proposed Condition – All Freeway w/ HSR Alternatives

Resource Change

The proposed roadway with on and off ramps, bridge structure, train tracks and bike path will negatively affect visual intactness and unity of the view. This would result in a slight lowering of the visual quality. The visual character will be changed to include more manmade elements. This introduction of large manmade elements would make visual character of the proposed view slightly decrease in compatibility. New sources of light from headlights that are elevated on the bridge as well as lighting for the interchange would adversely affect nighttime views in the area. Overall resource change is moderate-low negative change

Viewer Response

There will be recreational area users, from Richardson Park and Howard Loy Park affected by this visual change. Other viewers of the change at this location will be motorist, bicyclist and a small amount of residents. Manmade elements will become more dominant in the location. Views of the vegetated open land will be obstructed and overwhelmed by the new bridge, roadway, train tracks and bike path. Viewer response is expected to be moderate-high.

TABLE #70. **Visual Character (Compatibility) Evaluation for:**	**KV-#15– All Freeway w/ HSR Alternatives**
Visual Character (Compatibility) Change(VC) =	**-2.6**

TABLE #71. **Visual Quality Evaluation for:**				**KV-#15– All Freeway w/ HSR Alternatives**
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**3.0**	**3.0**	**3.3**	**3.1**
Alternative Rating	**2.6**	**2.3**	**2.0**	**2.3**
Visual Quality Change (VQ) =				**-0.8**

TABLE #72. **Visual Resource Change Rating for:**	**KV-#15– All Freeway Alternatives**
Visual Character Change **(VC)** Rating (from table above)	**-2.6**
Visual Quality Change **(VQ)** Rating (from table above)	**-0.8**
Visual Resource Change (RC) = (VC+VQ)/2	**-1.7**

TABLE #73. **Viewer Response Rating for:**	**KV-#15– All Freeway w/ HSR Alternatives**
Viewer Exposure Rating **(E)**	**4.8**
Viewer Sensitivity Rating **(S)**	**5.0**
Viewer Response Rating (VR) = **(E+S)/2**	**4.9**

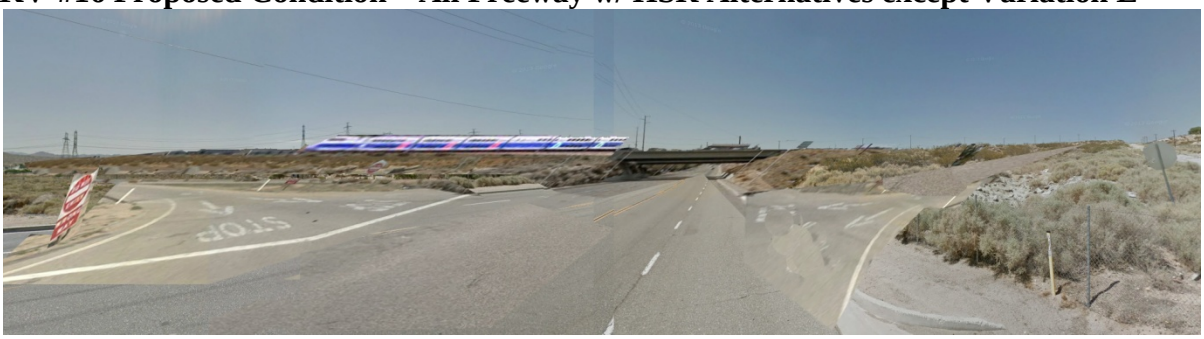
Commercial and Industrial Area Visual Assessment Unit

KEY VIEW (KV) #16 – Phantom Rd East and Turner Rd looking from Westwinds Golf Course South towards HDC

KV-16# Existing Condition

The existing view of Phantom Rd East at Turner Rd looking South with short hills and the High voltage electrical wires and towers in the mid-ground and mountains in the back ground based on vividness, intactness and unity the visual quality rating is moderate. The chaparral plants and a small bunch of green trees are the most vivid elements in this view. The large amount of open chaparral area adds to intactness and unity to the view.

KV-#16 Proposed Condition – All Freeway w/ HSR Alternatives except Variation E



Resource Change

The increased roadway width and bridge will negatively affect visual vividness, intactness and unity of the view. This would result in a lowering of the visual quality. The visual character will be changed to include more manmade elements. The mountains and existing green trees are blocked from view by the new facility. This introduction of large manmade elements would be incompatible with the visual character of the proposed view. Overall resource change is moderate negative change.

Viewer Response

The primary viewers of the change at this location will be motorist and recreational area users from Schmidt Park and Westwinds Sports Center and Golf Course. The project would not be visible from the majority of these recreational areas due to topography. Manmade elements will become much more dominant in the location. Views of the mountains will be obstructed and overwhelmed by the new bridge, roadway and train tracks. Viewer response is expected to be moderate-high.

TABLE #74.	
Visual Character (Compatibility) Evaluation for:	**KV-#16– All Freeway w/ HSR Alternatives except Variation E**
Visual Character (Compatibility) Change(VC) =	**-3.0**

TABLE #75.				
Visual Quality Evaluation for:				**KV-#16– All Freeway w/ HSR Alternatives except Variation E**
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**6.0**	**4.3**	**3.3**	**4.5**
Alternative Rating	**2.6**	**1.0**	**1.0**	**1.5**
Visual Quality Change (VQ) =				**-3.0**

TABLE #76.	
Visual Resource Change Rating for:	**KV-#16– All Freeway w/ HSR Alternatives except Variation E**
Visual Character Change **(VC)** Rating (from table above)	**-3.0**
Visual Quality Change **(VQ)** Rating (from table above)	**-3.0**
Visual Resource Change (RC) = (VC+VQ)/2	**-3.0**

TABLE #77.	
Viewer Response Rating for:	**KV-#16– All Freeway w/ HSR Alternatives except Variation E**
Viewer Exposure Rating **(E)**	**4.6**
Viewer Sensitivity Rating **(S)**	**5.0**
Viewer Response Rating (VR) = **(E+S)/2**	**4.8**

Residential Area On the Upland Slopes Visual Assessment Unit

KEY VIEW (KV) 17# – Village Dr and Rancho Rd with train

KV-17# Existing Condition

The existing view from a residential neighborhood in Victorville which has a distant view of the hills in the distance is moderate-high in visual quality based on vividness, intactness and unity.

KV-#17 Proposed Condition –High Speed Rail Variation E

Resource Change

The proposed overcrossing bridge will negatively affect visual intactness and unity of the view while vividness will remain the same. This would result in a slight lowering of the visual quality. Visual Character of the proposed view will slightly increase in compatibility. Overall resource change is moderate-low negative change.

Viewer Response

There will be a small number of resident viewers affected by this visual change for long durations. Distant views of the mountains and sense of openness will be blocked by the new overcrossing. Viewer response is expected to be moderate-high.

TABLE #78. Visual Character (Compatibility) Evaluation for: KV-#17– High Speed Rail Variation E	
Visual Character (Compatibility) Change(VC) =	**-0.7**

TABLE #79. Visual Quality Evaluation for: KV-#17– High Speed Rail Variation E				
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**4.0**	**4.0**	**4.0**	**4.0**
Alternative Rating	**2.3**	**2.0**	**2.4**	**2.2**
Visual Quality Change (VQ) =				**-1.8**

TABLE #80. Visual Resource Change Rating for: KV-#17– High Speed Rail Variation E	
Visual Character Change **(VC)** Rating (from table above)	**-0.7**
Visual Quality Change **(VQ)** Rating (from table above)	**-1.8**
Visual Resource Change (RC) = (VC+VQ)/2	**-1.25**

TABLE #81. Viewer Response Rating for: KV-#17– High Speed Rail Variation E	
Viewer Exposure Rating **(E)**	**4.9**
Viewer Sensitivity Rating **(S)**	**4.1**
Viewer Response Rating (VR) = **(E+S)/2**	**4.5**

Mojave River Visual Assessment Unit

KEY VIEW (KV) #18 – Looking east from Rockview Park

KV-#18 Existing Condition

The existing view of the desert with sagebrush, the Mojave River canyon, high voltage electrical power lines and mountains in the far off background based on vividness, intactness and unity the visual quality rating is moderate.

KV-#18 Proposed Condition – All Freeway with HRS Alternatives Except Variation E

Resource Change

The large bridge will negatively affect visual vividness, intactness and unity of the view. This would result in a lowering of the visual quality. The visual character will be changed to include more manmade elements. The mountains are blocked from view by the bridge. The horizontal character of the existing view has been impacted greatly with the addition of the vertical pillars of the bridge. This introduction of more manmade elements would make the visual character of the proposed view slightly decrease in compatibility. New sources of light from headlights that are elevated on the bridge would adversely affect nighttime views in the area. Overall resource change is low negative change.

Viewer Response

The primary viewers of the change at this location will be motorist, rail passengers and recreational area users from Rockview Park. Although the project would not be visible from the majority of the Rockview Park due to topography, it would be visible from a viewing area located on a high bluff. Though manmade elements currently exist, more manmade elements will become dominant in the location. Views of the vegetated open land will be obstructed and overwhelmed by the new bridge. Viewer response is expected to be moderate-high.

TABLE #82.	
Visual Character (Compatibility) Evaluation for:	**KV-#18– All Freeway with HRS Alternatives Except Variation E**
Visual Character (Compatibility) Change(VC) =	**-1.4**

TABLE #83.				
Visual Quality Evaluation for:				**KV-#18– All Freeway with HRS Alternatives Except Variation E**
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**5.3**	**4.0**	**4.0**	**4.4**
Alternative Rating	**3.7**	**2.6**	**2.7**	**3.0**
Visual Quality Change (VQ) =				**-1.4**

TABLE #84.	
Visual Resource Change Rating for:	**KV-#18– All Freeway with HRS Alternatives Except Variation E**
Visual Character Change **(VC)** Rating (from table above)	**-1.4**
Visual Quality Change **(VQ)** Rating (from table above)	**-1.4**
Visual Resource Change (RC) = (VC+VQ)/2	**-1.4**

TABLE #85.	
Viewer Response Rating for:	**KV-#18– All Freeway with HRS Alternatives Except Variation E**
Viewer Exposure Rating **(E)**	**4.3**
Viewer Sensitivity Rating **(S)**	**5.3**
Viewer Response Rating (VR) = **(E+S)/2**	**4.8**

Mojave River Visual Assessment Unit

KEY VIEW (KV) #19 – looking south on National Trails towards HDC bridge

KV-#19 Existing Condition

The existing view of the desert with sagebrush, the National trails Highway, high voltage electrical power lines and mountains in the far off background based on vividness, intactness and unity the visual quality rating is moderate.

KV-#19 Proposed Condition –Freeway Alternative E

Resource Change

The large bridge will negatively affect visual vividness, intactness and unity of the view. This would result in a lowering of the visual quality. The visual character will be changed to include more manmade elements. The mountains are blocked from view by the bridge. This introduction of more manmade elements would make the visual character of the proposed view will slightly decrease in compatibility. Overall resource change is low negative change.

Viewer Response

The primary viewers of the change at this location will be motorist and recreational area users from Rockview Park. Although the project would not be visible from the majority of the Rockview Park due to topography, it would be visible from a viewing area located on a high bluff. Though manmade elements currently exist, more manmade elements will become dominant in the location. South facing views will be obstructed and overwhelmed by the new bridge. Viewer response is expected to be moderate.

TABLE #86.	
Visual Character (Compatibility) Evaluation for:	**KV-#19– Freeway Alternative E**
Visual Character (Compatibility) Change(VC) =	**-0.5**

TABLE #87.				
Visual Quality Evaluation for:			**KV-#19– Freeway Alternative E**	
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**5.0**	**2.5**	**2.5**	**3.3**
Alternative Rating	**3.0**	**1.7**	**1.2**	**2.0**
Visual Quality Change (VQ) =				**-1.3**

TABLE #88.	
Visual Resource Change Rating for:	**KV-#19– Freeway Alternative E**
Visual Character Change **(VC)** Rating (from table above)	**-0.5**
Visual Quality Change **(VQ)** Rating (from table above)	**-1.3**
Visual Resource Change (RC) = (VC+VQ)/2	**-0.9**

TABLE #89.	
Viewer Response Rating for:	**KV-#19– Freeway Alternative E**
Viewer Exposure Rating **(E)**	**3.5**
Viewer Sensitivity Rating **(S)**	**3.5**
Viewer Response Rating (VR) = **(E+S)/2**	**3.5**

Mojave River Visual Assessment Unit

KEY VIEW (KV) #20 – National Trails and High Speed Rail bridge

KV-#20 Existing Condition

The existing view of the desert with sagebrush, the National Trails Highway, the café and mountains in the far off background based on vividness, intactness and unity the visual quality rating is moderate.

KV-#20 Proposed Condition –HSR Alternative E

Resource Change

The large bridge will negatively affect visual vividness, intactness and unity of the view. This would result in a lowering of the visual quality. The visual character will be changed to include more manmade elements. The mountains are blocked from view by the bridge. This introduction of more manmade elements would make the visual character of the proposed view will slightly decrease in compatibility. Overall resource change is low negative change.

Viewer Response

The primary viewers of the change at this location will be motorist and workers and patrons at the café and workers at the transportation management company located north, east of the bridge.. Though manmade elements currently exist, more manmade elements will become dominant in the location. Views will be obstructed and overwhelmed by the new bridge. Viewer response is expected to be moderate.

TABLE #90.	
Visual Character (Compatibility) Evaluation for: KV-#20– HSR Alternative E	
Visual Character (Compatibility) Change(VC) =	**-0.3**

TABLE #91.				
Visual Quality Evaluation for: KV-#20– HSR Alternative E				
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**4.0**	**3.7**	**3.3**	**3.7**
Alternative Rating	**3.0**	**2.3**	**2.2**	**2.5**
Visual Quality Change (VQ) =				**-1.2**

TABLE #92.	
Visual Resource Change Rating for: KV-#20– HSR Alternative E	
Visual Character Change **(VC)** Rating (from table above)	**-0.3**
Visual Quality Change **(VQ)** Rating (from table above)	**-1.2**
Visual Resource Change (RC) = (VC+VQ)/2	**-0.75**

TABLE #93.	
Viewer Response Rating for: KV-#20– HSR Alternative E	
Viewer Exposure Rating **(E)**	**3.5**
Viewer Sensitivity Rating **(S)**	**4.0**
Viewer Response Rating (VR) = **(E+S)/2**	**3.75**

Desert Area Visual Assessment Unit

KEY VIEW (KV) #21 –HDC and I-15 interchange looking north from northboundI-15

KV-#21 Existing Condition

The existing view of I-15 looking north is dominated by the roadway pavement in the foreground and a sign and telephone poles in the mid-ground and mountains and hills in the back ground based on vividness, intactness and unity the visual quality rating is moderate. The mountains and hills are the most vivid elements in this view. The large amount of open area adds to intactness and unity to the view.

KV-#21 Proposed Condition – All Build Alternatives

Resource Change

The increased roadway width and the HDC interchange will negatively affect visual vividness, intactness and unity of the view. This would result in a slight lowering of the visual quality. The visual character will decrease in compatibility with more manmade elements. Some of the hills and mountains are blocked from view by the overpasses. The horizontal character of the existing view has been impacted greatly with the addition of the vertical elements of the interchange. New sources of

light from headlights that are elevated on the bridge as well as lighting for the interchange would adversely affect nighttime views in the area. Overall resource change is low negative change.

Viewer Response

The primary viewers of the change at this location will be the motorist. More manmade elements will be added to this location. Viewer response is expected to be moderate-low to moderate.

TABLE #94.	
Visual Character (Compatibility) Evaluation for:	**KV-#21– All Build Alternatives**
Visual Character (Compatibility) Change(VC) =	**-1.0**

TABLE #95.				
Visual Quality Evaluation for:			**KV-#21– All Build Alternatives**	
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**3.3**	**3.7**	**3.3**	**3.4**
Alternative Rating	**3.0**	**3.0**	**1.7**	**2.6**
Visual Quality Change (VQ) =				**-0.8**

TABLE #96.	
Visual Resource Change Rating for:	**KV-#21– All Build Alternatives**
Visual Character Change **(VC)** Rating (from table above)	**-1.0**
Visual Quality Change **(VQ)** Rating (from table above)	**-0.8**
Visual Resource Change (RC) = (VC+VQ)/2	**-0.9**

TABLE #97.	
Viewer Response Rating for:	**KV-#21– All Build Alternatives**
Viewer Exposure Rating **(E)**	**2.3**
Viewer Sensitivity Rating **(S)**	**2.7**
Viewer Response Rating (VR) = **(E+S)/2**	**2.5**

Desert Area Visual Assessment Unit

KEY VIEW (KV) #22 – Looking north along Choco Road alignment

KV-#22 Existing Condition

The undulating mountain ridgeline in the background dominates and defines the view shed limit and surrounds the vast scale of the sloping desert plain landform in the foreground. The coarse texture of the desert landscape consists of a mostly homogenous, sparsely and uniformly spaced vegetated cover of muted green and brown native plants, reddish brown rocks, and a deposit of tan colored fine alluvial soils. Seasonal changes in color are expected in the Spring as vegetation puts on new growth and low grasses and plants grow and bloom, decreasing as temperatures rise. Daytime light and glare are absorbed by the desert landscape cover and nighttime light and glare are nonexistent with the exception of headlights in the distant middle ground along I-15. . Based on vividness, intactness, and unity the visual quality rating is high.

KV-#22 Proposed Condition – All Build Alternatives

Resource Change

The proposed HDC alignment runs in a west to east orientation and does not encroach or disturb the integrity of the ridgeline; however the south to north alignment of Choco Road divides the sloping desert plain into two distinct units left and right of the road. The change is primarily due to the long linear alignment of Choco Road competing with the ridgeline for dominance, change to the texture and color of the desert landscape caused by the width and color of the pavement and less overall continuity with the addition of this element. Increased light at night is anticipated with the addition of traffic signals, roadway lighting and vehicle headlights. This location has been designated to receive a Vista Point because of its view of the natural open spaces of the desert valley. An increase in daytime glare is anticipated with the addition of reflective materials for signs, pavement and vehicles. Overall resource change is moderately-low negative change

Viewer Response

Presently there are no roads or motorists along this part of the proposed alignment. The viewer groups visibly present at the time of the field investigation are pedestrians and cyclists as well as residents from a new residential community on Choco Road that look north over this section of desert. The residents would have frequent and long durations of exposure to the Choco Road Interchange and because their present view is of a highly intact desert landscape their sensitivity is high. Hikers and mountain bike riders, like the residential group, are accustomed to the intact landscape and have a moderate to moderately-high exposure and a moderately-high to high sensitivity to change Viewer response is expected to be moderate-high.

TABLE #98.	
Visual Character (Compatibility) Evaluation for:	**KV-#22– All Build Alternatives**
Visual Character (Compatibility) Change(VC) =	**-2.0**

TABLE #99.				
Visual Quality Evaluation for:			**KV-#22– All Build Alternatives**	
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**5.0**	**6.5**	**6.5**	**6.0**
Alternative Rating	**5.0**	**4.0**	**3.5**	**4.2**
Visual Quality Change (VQ) =				**-1.8**

TABLE #100.	
Visual Resource Change Rating for:	**KV-#22– All Build Alternatives**
Visual Character Change **(VC)** Rating (from table above)	**-2.0**
Visual Quality Change **(VQ)** Rating (from table above)	**-1.8**
Visual Resource Change (RC) = (VC+VQ)/2	**-1.9**

TABLE #101. Viewer Response Rating for: KV-#22– All Build Alternatives	
Viewer Exposure Rating **(E)**	**4.6**
Viewer Sensitivity Rating **(S)**	**5.3**
Viewer Response Rating (VR) = (E+S)/2	**5.0**

Desert Area Visual Assessment Unit

KEY VIEW (KV) #23 Choco Rd looking north –

KV-#23 Existing Condition

The view is oriented east over the rising desert mesa to the horizon at the saddle ridge which is dominated and framed by the distinctive "Bell Mountain" and "Little Bell Mountain" formations. The coarse texture of the desert landscape consists of a homogenous, sparsely and uniformly distributed vegetated cover of muted green and brown native plants, reddish brown rocks, and a deposit of tan colored fine alluvium soils. Seasonal changes in color occur in the Spring as vegetation puts on new growth and low growing perennial plants grow, bloom, and turn brown as temperatures increase. There is no existing source of light and glare at nighttime or daytime. At night stars fill the nighttime sky. . Based on vividness, intactness, and unity this view has high visual quality as it is undisturbed and highly intact.

KV-#23 Proposed Condition – All Build Alternatives

Resource Change

The HDC roadway introduces long linear lines in the form of pavement markings and roadside edges. The new lines run perpendicular to the ridgeline and compete with mountain peaks for dominance. The scale of the desert landscape is reduced within the view shed as the road interrupts the existing undisturbed landscape. Roadway views terminate at the horizon with large vertical cuts through the saddle ridgeline. The road cuts will expose rocks and soil that do not have the same colors as the surrounding weathered material. The continuity of the Bell Mountain ridgeline has been divided by the roadway into segmented parts and decreases the overall visual unity.

A Vista Point will be located at the saddle between Bell Mountain and Little Bell Mountain because this point, at an elevation of 2,900 feet above sea level, has a view of the open spaces of the desert

valley, dominated by creosote, Joshua trees and desert scrub. Overall resource change is moderately low negative change.

Viewer Response

Presently there are no roads or motorists along this part of the proposed alignment. The viewer groups visibly present at the time of the field investigation are pedestrians and cyclists. Hikers and mountain bike riders are accustomed to the intact landscape and have a moderate to moderately-high exposure and a moderately-high to high sensitivity to change. Viewer response is expected to be moderate.

TABLE #102.	
Visual Character (Compatibility) Evaluation for:	**KV-#23– All Build Alternatives**
Visual Character (Compatibility) Change(VC) =	**-2.5**

TABLE #103.				
Visual Quality Evaluation for:			**KV-#23– All Build Alternatives**	
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**6.0**	**7.0**	**6.5**	**6.5**
Alternative Rating	**5.0**	**4.0**	**4.0**	**4.3**
Visual Quality Change (VQ) =				**-2.2**

TABLE #104.	
Visual Resource Change Rating for:	**KV-#23– All Build Alternatives**
Visual Character Change **(VC)** Rating (from table above)	**-2.5**
Visual Quality Change **(VQ)** Rating (from table above)	**-2.2**
Visual Resource Change (RC) = (VC+VQ)/2	**-2.35**

TABLE #105.	
Viewer Response Rating for:	**KV-#23– All Build Alternatives**
Viewer Exposure Rating **(E)**	**3.7**
Viewer Sensitivity Rating **(S)**	**3.7**
Viewer Response Rating (VR) = **(E+S)/2**	**3.7**

Residential Area on the Valley Floor Visual Assessment Unit

KEY VIEW (KV) #24 – Looking Northeast @ Dale Evans Parkway

KV-#24 Existing Condition

Dale Evans Parkway dominates the foreground views and becomes less significant as the pavement and roadway lines converge at the distant ridgeline horizon of the Bell Mountain and Fairview Hills complex mountain range in the background. The sparsely vegetated south facing shoulder and ridgeline of Bell Mountain and the Fairview Hills are tan in color and define the view shed of the valley floor. The muted green and brown vegetation in the middle and foreground are coarse in texture and contrast with the fine pavement and disturbed soil of the roadway shoulder. The vast scale of the vegetated valley floor hides or screens the manmade land cover of single, two story residential and commercial structures. Light and glare from manmade land uses are absorbed into the desert landscape cover. Based on vividness, intactness, and unity the visual quality rating is moderate-high.

KV-#24 Proposed Condition – All Build Alternatives

Resource Change

Dale Evans Parkway and the HDC dominate the middle and foreground view. There is an increase in pavement and new slopes built for the overcrossing. The continuity of the desert landscape is highly disturbed as the east to west oriented HDC traverses the valley floor and passes under the Dale Evans Parkway. The new Dale Evans Parkway overpass structure and appurtenances (lighting, traffic signals and increased signage) visually encroach into the prominent and sweeping ridgeline and otherwise dark nighttime sky beyond the horizon. Overall resource change is moderately low negative change.

Viewer Response

The viewer groups are motorists, pedestrians, cyclists, commercial, and residential users. Residents from a residential community approximately 1 mile south, near Corwin and Waalew Roads look north to the proposed HDC and Dale Evans Parkway overcrossing. Due to the lengthy distance, the residents would have infrequent and moderate durations of exposure to the Dale Evans Interchange and because their present view is of an existing roadway, their sensitivity is moderate. The commercial users around Waalew Road and the Apple Valley Airport are at a distance of 1 mile and so

that lowers their sensitivity to change. Hikers and mountain bike riders that use the local roads or nearby open spaces are few in number and have a moderate exposure and a moderate sensitivity to change. The motorist viewers are primarily local residents and commuters. The motorists have regular yet short duration views and a moderately-low sensitivity to change Viewer response is expected to be moderate.

TABLE #106.	
Visual Character (Compatibility) Evaluation for: KV-#24– All Build Alternatives	
Visual Character (Compatibility) Change(VC) =	**-1.5**

TABLE #107.				
Visual Quality Evaluation for: KV-#24– All Build Alternatives				
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**5.0**	**5.0**	**5.0**	**5.0**
Alternative Rating	**4.0**	**3.0**	**2.0**	**3.0**
Visual Quality Change (VQ) =				**-2.0**

TABLE #108.	
Visual Resource Change Rating for: KV-#24– All Build Alternatives	
Visual Character Change **(VC)** Rating (from table above)	**-1.5**
Visual Quality Change **(VQ)** Rating (from table above)	**-2.0**
Visual Resource Change (RC) = (VC+VQ)/2	**-1.5**

TABLE #109.	
Viewer Response Rating for: KV-#24– All Build Alternatives	
Viewer Exposure Rating **(E)**	**3.1**
Viewer Sensitivity Rating **(S)**	**2.6**
Viewer Response Rating (VR) = **(E+S)/2**	**2.8**

Residential Area on the Valley Floor Visual Assessment Unit

KEY VIEW (KV) #25 – Looking Northeast @ Waalew Road

KV-#25 Existing Condition

The scale of the flat, gently sloping valley floor dominates the foreground and is emphasized by the Deadman Point Mountain and the distant San Bernardino Mountains. There is little to no continuity within the existing view due to the moderate to highly disturbed desert landscape. The disturbed landscape is caused by the random line pattern of numerous tan colored dirt trails that crisscross the muted green and brown colored landscape cover. Based on vividness, intactness, and unity the visual quality rating is moderate.

KV-#25 Proposed Condition – All Build Alternatives

Resource Change

The resource change is moderate as the realignment of Waalew Road to the new alignment of the HDC increases the scale and dominance of the roadway. The influence of manmade elements increases the continuity of the view due to the unifying and strong linear orientation of the roadway and organization of space. Overall resource change is low negative change.

Viewer Response

Viewers include motorists, off-road trail riders, horseback riders, pedestrians, and residents from the adjacent neighborhood. Local motorists have a moderately low exposure and sensitivity to change due to the low number of users on the existing road and the short duration to which they view the intersection. Pedestrians, horseback riders and off-road trail riders have a moderate exposure due to the relatively low number of users. The duration of exposure for this group is somewhat higher than the motorist group because although they view the area for a longer period of time their use is less frequent. This group also has a moderate sensitivity due to change because they expect a higher level of enjoyment from their use of the area. The residents fall into two similar groups – those that face Waalew Road and those that have views from their backyards across the open desert landscape. Although their sensitivity to change is high because of their proximity to the project the exposure is slightly different due to the duration and level of change proposed. The homes on Waalew Road face an existing road and the view does not change significantly, however the residents with backyards that face the open desert are expected to view the project for longer periods and a change to the current condition. Viewer response is expected to be moderate.

TABLE #110.	
Visual Character (Compatibility) Evaluation for:	**KV-#25– All Build Alternatives**
Visual Character (Compatibility) Change(VC) =	**0.0**

TABLE #111.				
Visual Quality Evaluation for:			**KV-#25– All Build Alternatives**	
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**2.0**	**2.0**	**2.0**	**3.0**
Alternative Rating	**3.0**	**2.0**	**4.0**	**2.0**
Visual Quality Change (VQ) =				**-1.0**

TABLE #112.	
Visual Resource Change Rating for:	**KV-#25– All Build Alternatives**
Visual Character Change **(VC)** Rating (from table above)	**0.0**
Visual Quality Change **(VQ)** Rating (from table above)	**-1.0**
Visual Resource Change (RC) = (VC+VQ)/2	**-0.5**

TABLE #113.	
Viewer Response Rating for:	**KV-#25– All Build Alternatives**
Viewer Exposure Rating **(E)**	**3.3**
Viewer Sensitivity Rating **(S)**	**3.5**
Viewer Response Rating (VR) = **(E+S)/2**	**3.4**

Residential Area on the Upland Slopes Visual Assessment Unit

KEY VIEW (KV) #26 – Looking Southwest @ Central Road

KV-#26 Existing Condition

The view looking south is dominated by the vast scale of the broad, flat dry lake basin and framed by the peak of Deadman's Point to the east, low hills to the west, and the undulating line of the San Bernardino Mountains in the distant background. With limited diversity within the basin, continuity is high as little to no development is present. The fine texture of the basins' tan soil and muted green and brown colored vegetation becomes coarse at it's' edges as residential development and vegetated cover increase. Based on vividness, intactness, and unity the visual quality rating is moderate-high.

KV-#26 Proposed Condition – All Build Alternatives

Looking south, the flat dry lake basin in the foreground is interrupted by the long horizontal line and fill slopes of the elevated roadway. Driving along the elevated roadway motorists on the HDC will have a more acute awareness of the dry lake due to their superior position above the basin floor. The resource change for this view is moderately-low.

Resource Change

The HDC has an overall moderately-low compatibility level with the existing view. The proposed alignment lies in proximity to the current Central and Cahuilla Road intersection, however the existing vehicular circulation land use is much lower than the proposed traffic volumes anticipated for the HDC and the additional light and glare from automobiles, trucks, signs, traffic lights and roadway lighting would be higher. The new alignment is elevated and will partially block views to the mountains in the distant background and the exposed fill material would have a different color Overall resource change is low negative change.

Viewer Response

Viewers include motorists, pedestrians, and residents from the adjacent neighborhood. Local motorists have a moderately low exposure and sensitivity to change due to the low number of users on the existing road and the short duration to which they view the intersection. Pedestrians have a moderate exposure due to their relatively low number. The duration of exposure for this group is somewhat higher than the motorist group because although they view the area for a longer period of time their use is less frequent. This group also has a moderate sensitivity due to change because they expect a higher level of enjoyment from their use of the area. The residents have views from their backyards across the open desert and dry lake. Their sensitivity to change is high because of

their proximity to the project their exposure is extended. Viewer response is expected to be moderate.

TABLE #114.	
Visual Character (Compatibility) Evaluation for:	**KV-#26– All Build Alternatives**
Visual Character (Compatibility) Change(VC) =	**-1.0**

TABLE #115.				
Visual Quality Evaluation for:			**KV-#26– All Build Alternatives**	
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**3.0**	**4.0**	**4.0**	**3.6**
Alternative Rating	**2.0**	**3.0**	**3.0**	**2.6**
Visual Quality Change (VQ) =				**-1.0**

TABLE #116.	
Visual Resource Change Rating for:	**KV-#26– All Build Alternatives**
Visual Character Change **(VC)** Rating (from table above)	**-1.0**
Visual Quality Change **(VQ)** Rating (from table above)	**-1.0**
Visual Resource Change (RC) = (VC+VQ)/2	**-1.0**

TABLE #117.	
Viewer Response Rating for:	**KV-#26– All Build Alternatives**
Viewer Exposure Rating **(E)**	**3.6**
Viewer Sensitivity Rating **(S)**	**3.0**
Viewer Response Rating (VR) = **(E+S)/2**	**3.3**

Residential Area on the Valley Floor Visual Assessment Unit

KEY VIEW (KV) #27 – Looking Northeast @ Joshua and Zuni Road

KV-#27 Existing Condition

The Fairview Mountains dominate the view above the sweeping, flat, gently sloping valley floor. The primary land cover is a coarse texture of muted green and brown desert vegetation and some more vibrant green ornamental plants surrounding the more established residences of the rural community. There is a moderate level of diversity consisting of manmade and natural elements creating continuity that is expected and typical of a rural residential landscape. Based on vividness, intactness, and unity the visual quality rating is moderate.

KV-#27 Proposed Condition – All Build Alternatives

Resource Change

The Fairview Mountains remain the dominate feature within this view however the decrease of diversity caused by the increased manmade influence of the HDC's pavement and the loss of typical native land cover lowers the overall visual quality of the rural residential character. Overall resource change is very low positive change.

Viewer Response

Viewers include motorists, horseback riders, pedestrians, and residents from the adjacent rural residential neighborhoods. Local motorists have a moderately-low exposure and sensitivity to change due to the low number of users on the existing road and the short duration to which they view the intersection. Pedestrians and horseback riders have a moderate exposure due to the relatively low number of users. The duration of exposure for this group is somewhat higher than the motorist group because although they view the area for a longer period of time their use is less frequent. This group also has a moderate sensitivity due to change because they expect a higher level of enjoyment from their use of the area. The residents fall into two similar groups – those within ¼ mile and those greater than ¼ miles from the Corridor. Although their sensitivity to change is high the exposure is slightly different due to the proximity to the project and the time exposed to the project. The views do not change significantly for those homes on Joshua Road which face an existing road, however the residents on Zuni Road with backyards that face the open desert are expected to view the project for longer periods and there will be a change to the current condition of view. Viewer response is expected to be moderate.

TABLE #118.	
Visual Character (Compatibility) Evaluation for:	**KV-#27– All Build Alternatives**
Visual Character (Compatibility) Change(VC) =	**1.0**

TABLE #119.				
Visual Quality Evaluation for:			**KV-#27– All Build Alternatives**	
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**2.0**	**3.0**	**3.0**	**2.7**
Alternative Rating	**3.0**	**2.0**	**2.0**	**2.3**
Visual Quality Change (VQ) =				**-0.4**

TABLE #120.	
Visual Resource Change Rating for:	**KV-#27– All Build Alternatives**
Visual Character Change **(VC)** Rating (from table above)	**1.0**
Visual Quality Change **(VQ)** Rating (from table above)	**-0.4**
Visual Resource Change (RC) = (VC+VQ)/2	**0.3**

TABLE #121.	
Viewer Response Rating for:	**KV-#27– All Build Alternatives**
Viewer Exposure Rating **(E)**	**3.3**
Viewer Sensitivity Rating **(S)**	**3.5**
Viewer Response Rating (VR) = **(E+S)/2**	**3.4**

Residential Area on the Valley Floor Visual Assessment Unit

KEY VIEW (KV) #28 – Looking Northeast @ Thunderbird Road and Shirwaun Road

KV-#28 Existing Condition

The existing visual character is that of a mostly intact natural desert landscape across the northern edge of a dry lake that rises gently along the sloping drainage of nearby mountains. The rural residential area in the middle ground is situated at the base of the mountains that rise in the background 300 feet above the valley floor. The view shed has high continuity with mountains that dominate the desert landscape. Based on vividness, intactness, and unity the visual quality rating is moderate-high.

KV-#28 Proposed Condition – All Build Alternatives

Resource Change

The visual character of the dominate roadway in the foreground has a high contrast of color with the surrounding desert landscape. The roadway is elevated on fill soil above the gently rising valley floor. There is little continuity of the roadway with the surrounding desert landscape. Changes to the pattern elements and pattern character have an overall moderately negative impact. Overall resource change is moderately low negative change.

Viewer Response

Viewers include motorists, horseback riders, pedestrians, and residents from the adjacent rural residential neighborhoods. Local motorists have a moderately-low exposure and sensitivity to change due to the low number of users on the existing road and the short duration to which they view the intersection. Pedestrians and horseback riders have a moderate exposure due to the relatively low number of users. The duration of exposure for this group is somewhat higher than the motorist group because although they view the area for a longer period of time their use is less frequent. This group also has a moderate sensitivity due to change because they expect a higher level of enjoyment from their use of the area. The residents fall into two similar groups – those within ¼ mile and those greater than ¼ miles from the Corridor. Although their sensitivity to change is high the exposure is slightly different due to the proximity to the project and the time exposed to the project. The view does not change significantly for those homes on Joshua Road which face an existing

road, however the residents on Zuni Road with backyards that face the open desert are expected to view the project for longer periods and there will be a change to the current condition of the view. Viewer response is expected to be moderate.

TABLE #122.	
Visual Character (Compatibility) Evaluation for:	**KV-#28– All Build Alternatives**
Visual Character (Compatibility) Change(VC) =	**-1.0**

TABLE #123.				
Visual Quality Evaluation for:			**KV-#28– All Build Alternatives**	
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**4.0**	**5.0**	**6.0**	**5.0**
Alternative Rating	**2.0**	**2.0**	**2.0**	**2.0**
Visual Quality Change (VQ) =				**-3.0**

TABLE #124.	
Visual Resource Change Rating for:	**KV-#28– All Build Alternatives**
Visual Character Change **(VC)** Rating (from table above)	**-1.0**
Visual Quality Change **(VQ)** Rating (from table above)	**-3.0**
Visual Resource Change (RC) = (VC+VQ)/2	**-2.0**

TABLE #125.	
Viewer Response Rating for:	**KV-#28– All Build Alternatives**
Viewer Exposure Rating **(E)**	**3.2**
Viewer Sensitivity Rating **(S)**	**3.7**
Viewer Response Rating (VR) = **(E+S)/2**	**3.45**

Residential Area on the Valley Floor Visual Assessment Unit

KEY VIEW (KV) #29 – Looking west @ Moccasin Road

KV-#29 Existing Condition

Situated on the gently sloping southwest oriented alluvial fan and unique rock outcroppings of the Bell Mountain the rural residential estates look across the flat horizontal plain of the valley floor to the undulating ridgeline of the San Bernardino Mountains in the distant background. The tan to reddish brown native soils are covered by muted green and brown vegetation with vibrant springtime bloom of flowers and other short lived desert plants and grasses. Wide sweeping vistas across the valley dominate the foreground of a mostly intact desert landscape with little manmade influence. Based on vividness, intactness, and unity, the visual quality rating is moderate.

KV-#29 Proposed Condition – All Build Alternatives

Resource Change

The HDC is incompatible with the existing condition due to changes in visual character and pattern character. Pattern element changes by the HDC include a change in color with increased dark pavement and an increase in reflective materials from vehicles, signs, signals and light poles. Textural changes to the vegetated land cover become increasingly smoother by pavement. Another contributing factor to the visual character changes are attributed to changes in pattern character. The proposed HDC introduces the hard edges of a wide and elevated roadway of dark colored pavement, and highly reflective materials from signs and vehicles that highly contrast with the natural vegetative cover of the flat valley floor. The HDC dominates the foreground and the continuity of the desert landscape is greatly reduced. Overall resource change is low negative change.

Viewer Response

The expected overall viewer response to change as a result of the HDC is moderate. All viewer groups have a moderate to high exposure and sensitivity to change. Local motorists have a moderate exposure and moderately-high sensitivity to the proposed alignment. The local motorists are also local residents who frequently travel the narrow paved and unpaved local roads. Once the local motorists have arrived at their homes their exposure and sensitivity becomes moderately-high and high, respectively. The local residents' exposure to the proposed road alignment is frequent and the duration of views are extended. Their sensitivity to change is high due to the sense of ownership that has developed among the rural residential community. Based on the number of pedestrians and horseback riders their exposure to change is slightly less than the local motorists and residents,

however their sensitivity remains moderately-high for the same reasons. Viewer response is expected to be moderate.

TABLE #126.	
Visual Character (Compatibility) Evaluation for:	**KV-#29– All Build Alternatives**
Visual Character (Compatibility) Change(VC) =	**-2.0**

TABLE #127.				
Visual Quality Evaluation for:			**KV-#29– All Build Alternatives**	
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**4.0**	**4.0**	**5.0**	**4.3**
Alternative Rating	**6.0**	**2.0**	**3.0**	**3.7**
Visual Quality Change (VQ) =				**-0.6**

TABLE #128.	
Visual Resource Change Rating for:	**KV-#29– All Build Alternatives**
Visual Character Change **(VC)** Rating (from table above)	**-2.0**
Visual Quality Change **(VQ)** Rating (from table above)	**-0.6**
Visual Resource Change (RC) = (VC+VQ)/2	**-1.3**

TABLE #129.	
Viewer Response Rating for:	**KV-#29– All Build Alternatives**
Viewer Exposure Rating **(E)**	**3.5**
Viewer Sensitivity Rating **(S)**	**3.7**
Viewer Response Rating (VR) = **(E+S)/2**	**3.6**

Residential Area on the Valley Floor Visual Assessment Unit

KEY VIEW (KV) #30 – Yucca Loma Rd looking west

KV-#30 Existing Condition

The vast scale of the flat, gently sloping valley floor is emphasized by the visually dominate stand of evergreen trees in the middle ground and the undulating ridgeline of the San Bernardino and Angelus National Forests in the distant background. The tan to reddish brown native soils are covered by muted green and brown vegetation with vibrant springtime bloom of flowers and other short lived desert plants and grasses as well as non-native vegetation planted for both ornamental and functional uses. Wide sweeping vistas across the valley dominate the foreground of a moderately disturbed desert landscape with some manmade influence. The continuity of the view is moderately-low as natural landforms and land cover lack unique natural scenic resources and is interrupted by the stand of evergreen trees around the residential structure in the middle ground. Based on vividness, intactness, and unity, the visual quality rating is moderate.

KV-#30 Proposed Condition – All Build Alternatives

Resource Change

At this location the HDC replaces the dominance of the stand of evergreen trees with a wide divided roadway that will be visible to the local residents, horseback riders, and hikers. The influence of manmade elements increases the continuity of the view due to the unifying and strong linear orientation of the roadway. The unifying effects of the HDC's pattern character are offset by the increase in day and nighttime glare from the roadway pavement, signage, vehicles, and lighting. The pavement also contrasts significantly with the color and texture of the existing landscape cover.

This location has been designated to receive a Vista Point because of its view of the beautiful open spaces of the desert valley. There is Horseman's Rock, horse corrals and views of the knolls, Bell Mountain, Fairview Mountain and the natural rock outcroppings. Overall resource change is low negative change.

Viewer Response

Viewers include motorists, pedestrians, and residents from the adjacent rural residential neighborhood as well as horseback riders and hikers in and around the nearby Milpas Highlands and the Horseman's Equestrian Center. Local motorists have a moderately-low exposure and sensitivity to change due to the low number of users on the existing paved Yucca Loma Road. Pedestrians, hikers

and horseback riders have a moderate exposure due to the relatively low number of users. The duration of exposure for this group is higher than the motorist group because they view the area for a longer period of time as well as from a superior viewing position from the rock outcroppings and highland slopes. This group also has a moderately-high sensitivity due to change because they expect a high level of enjoyment from their use of the area. The residents' sensitivity to change is high because of their proximity to the project. The homes facing Yucca Loma Road face an existing road and the view does not change significantly, however the residents with side and backyards that face the open desert are expected to view the project for longer periods and so it will be a change to the current condition of the view. Viewer response is expected to be moderate.

TABLE #130	
Visual Character (Compatibility) Evaluation for:	**KV-#30– All Build Alternatives**
Visual Character (Compatibility) Change(VC) =	**-1.0**

TABLE #131				
Visual Quality Evaluation for:			**KV-#30– All Build Alternatives**	
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**3.0**	**3.0**	**3.0**	**3.0**
Alternative Rating	**3.0**	**3.0**	**4.0**	**3.33**
Visual Quality Change (VQ) =				**0.33**

TABLE #132	
Visual Resource Change Rating for:	**KV-#30– All Build Alternatives**
Visual Character Change **(VC)** Rating (from table above)	**-1.0**
Visual Quality Change **(VQ)** Rating (from table above)	**0.33**
Visual Resource Change (RC) = (VC+VQ)/2	**-0.33**

TABLE #133	
Viewer Response Rating for:	**KV-#30– All Build Alternatives**
Viewer Exposure Rating **(E)**	**4.0**
Viewer Sensitivity Rating **(S)**	**4.2**
Viewer Response Rating (VR) = **(E+S)/2**	**4.1**

Desert Area Visual Assessment Unit

KEY VIEW (KV) #31 – Dead Man's Point Vista Point, looking north

KV-#31 Existing Condition

Dead Man's Point Vista Point is located on Bear Valley Road, where it intersects with Highway 18 in Apple Valley. Overlooking Dead Man's Point, there is a special rock formation and split pillar found 100 feet off of the road. It is a locale of legends and Hollywood movies.

Dead Man's Point Vista Point has a view of the beautiful open spaces of the desert valley. There is Horseman's Rock, horse corrals and views of the knolls, Bell Mountain, Fairview Mountain, and the natural rock outcroppings. Visitors and the local community are a part of the natural environment seen in these open spaces. Based on vividness, intactness, and unity, the visual quality rating is moderate low.

KV-#31 Proposed Condition – All Freeway Alternatives

Resource Change

The influence of manmade elements increases the continuity of the view due to the unifying and strong linear orientation of the roadway. The unifying effects of the HDC's pattern character are offset by the increase in day and nighttime glare from the roadway pavement, signage, vehicles, and lighting. The pavement also contrasts significantly with the color and texture of the existing landscape cover.

This location has been designated to receive a Vista Point because of its view of the natural boulder formations with multiple color hues earthtones in the open spaces of the desert valley. There is Horseman's Rock, horse corrals and views of the knolls, Bell Mountain, and Fairview Mountain. Overall resource change is low negative change.

Viewer Response

Viewers include motorists, pedestrians and residents from the adjacent rural residential neighborhood, as well as horseback riders and hikers in and around the nearby Highlands and the Horseman's Equestrian Center. Local motorists have a moderately low exposure and sensitivity to change due to the low number of users on the existing paved Bear Valley Road. Pedestrians, hikers and horseback riders have a moderate exposure due to the relatively low number of users. The duration of exposure for this group is higher than the motorist group because they view the area for a longer period of time, as well as from a superior viewing position from the vista point. This group also has a moderately high sensitivity due to change, because they expect a high level of enjoyment from their use of the area. The users' sensitivity to change is high because of their proximity to the project. The expected viewer response is moderate.

TABLE #134	
Visual Character (Compatibility) Evaluation for: KV-#31– All Freeway Alternatives	
Visual Character (Compatibility) Change(VC) =	**-1.0**

TABLE #135				
Visual Quality Evaluation for: KV-#31– All Freeway Alternatives				
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing Rating	**2.7**	**2.0**	**2.3**	**2.3**
Alternative Rating	**1.3**	**2.0**	**2.3**	**1.9**
Visual Quality Change (VQ) =				**0.4**

TABLE #136	
Visual Resource Change Rating for: KV-#31– All Freeway Alternatives	
Visual Character Change **(VC)** Rating (from table above)	**-1.0**
Visual Quality Change **(VQ)** Rating (from table above)	**-0.4**
Visual Resource Change (RC) = (VC+VQ)/2	**-0.7**

TABLE #137	
Viewer Response Rating for: KV-#31– All Freeway Alternatives	
Viewer Exposure Rating **(E)**	**3.0**
Viewer Sensitivity Rating **(S)**	**5.7**
Viewer Response Rating (VR) = **(E+S)/2**	**4.35**

Summary of Visual Impacts by Visual Assessment Unit

A summary of visual impacts has been prepared for the following visual assessment units:

Residential Area on the Valley Floor Visual Assessment Unit

In this Residential Areas Visual Assessment Unit, viewer response is the highest at an average rating of moderately-high. This is due to the longer exposure time and higher sensitivity of the residential viewer group. The resource change of the Assessment Unit is on average a low negative change because of the existence of manmade elements in regards to visual quality.

Seasonal Creeks Visual Assessment Unit

The Seasonal Creeks Visual Assessment Unit has an average rating of moderately-low negative change for resource change because of the change in visual quality and character largely due to the introduction of manmade elements into a natural setting with vegetation and water elements. Because the main viewer is the motorist, average viewer response is moderate.

Desert Area Visual Assessment Unit

The Desert Area Visual Assessment Unit has an average rating of low negative change for resource change because of the change in visual quality and character largely due to the introduction of manmade elements into a natural setting. Because the main viewer is the motorist, average viewer response is moderate.

Commercial and Industrial Area Visual Assessment Unit

The Commercial and Industrial Area Visual Assessment Unit has an average resource change of moderate negative change due to the proposed HSR viaduct Alternative which will negatively affect the visual character and visual quality. The viewer response is rated as moderately-high due to the recreational users viewer group high sensitivity.

Mojave River Visual Assessment Unit

The Mojave River Visual Assessment Unit has an average rating of low negative change for resource change because of the change in visual quality and character largely due to the introduction of manmade elements into a natural setting with vegetation and water elements. The viewer response is rated as moderately-high due to the recreational user's viewer group high sensitivity.

Residential Area on the Upland Slopes Visual Assessment Unit

In this Residential Areas on the Upland Slopes Visual Assessment Unit, viewer response is moderate. This is due to the broader range of viewing area for this viewer group. The resource change of the Assessment Unit is a low negative change because of the existence of manmade elements in regards to visual quality.

The table below summarizes Visual Impact Rating for each key view.

TABLE #138

Visual Assessment Unit	Key View	Visual Impact Rating
All Build Freeway Alternatives		
Residential Area on the Valley Floor	1	**Moderate Low**
	2	**Moderate Low**
	3	**Moderate**
	6	**Moderate High**
	7	**Moderate**
	8	**Moderate**
	9	**Moderate**
	21	**Moderate Low**
	22	**Moderate**
	28	**Moderate**
	29	**Moderate Low**
	30	**Moderate Low**
Desert Area	31	**Moderate Low**
Residential Area on the Upland Slopes	23	**Moderate**
	24	**Moderate**
	25	**Moderate Low**
	26	**Moderate Low**
	27	**Moderate Low**
All Build Freeway w/ HSR Alternatives		
Residential Area on the Upland Slopes	10	**Moderate**
Seasonal Creeks	11	**Moderate**
Desert Area	12	**Moderate**
	13	**Moderate**
	14	**Moderate**
	15	**Moderate**
All Build Freeway w/ HSR Alternatives Except Variation E		
Commercial and Industrial Area	16	**Moderate High**
Mojave River	18	**Moderate**

Visual Assessment Unit	Key View	Visual Impact Rating
Option 1 of High Speed Rail		
Residential Area on the Valley Floor	4	**Moderate Low**
Option 7 of High Speed Rail		
Residential Area on the Valley Floor	4	**Moderate Low**
	5	**Moderate**
High Speed Rail Variation E		
Residential Area on the Upland Slopes	17	**Moderate**
Commercial and Industrial Area	20	**Moderate Low**
Freeway Variation E		
Commercial and Industrial Area	19	**Moderate Low**

VISUAL IMPACTS of other Proposed Elements

Infiltration Basins

Infiltration Basins are proposed at various locations. Basins and other water quality treatment facilities should be designed with undulating outlines and with a variety of appropriate plant and inert material to blend with the surrounding terrain and landscape, rather than creating basins which require screening. Place the facilities as low beneath finish grade as possible to minimize visible profile or place a berm around to minimize visual impact. Basins and other water quality treatment facilities within communities with design standards should be designed consistent with those community design standards.

Example of an Existing Infiltration Basin in Southern California.

Green Energy Option and/or Transmission Facilities

Several green energy technologies would be incorporated into the project build alternatives to minimize impact to energy and meet the green corridor concept. Specific technologies have not been finalized. Once the technologies are identified the design team would work in coordination with Caltrans Landscape Architecture staff to ensure that the impacts to surrounding visual resources are minimized.

Some power lines would require modifications to avoid conflicts with the project. Such modifications would consist chiefly of increasing the height above ground of the lines passing over the HDC to main-

tain consistency with CPUC GO #95. The HDC corridor would be elevated above the existing terrain by approximately 12 feet, so some power lines (and power line towers) may need to be increased in height by up to 12 feet. These modifications could have incremental visual impacts and could trigger FAA notification (FAA Form 7460-1) and marking and lighting requirements pursuant to 14 Code of Federal Regulations Part 77.

High Speed Rail station

A HSR station is proposed to be combined with the existing train station in Palmdale. As part of Option 7 the existing station is to be expanded to include the HSR. Option 1 would shift the Palmdale station approximately 800 feet to the south of the existing station. The station design should be consistent with the other stations along the alignment and therefore will be visually compatible with rest of the alignment. Parking will need to be expanded. If parking structures are necessary then they should be a maximum of 2 stories tall to avoid significantly blocking views and avoid significant visual impacts. Two story parking structures should be stepped back to minimize the perceived scale from the road edge. Trees and shrubs should be planted around the structure as much as possible for a softening effect. There will be outdoor security lighting on and around the new platforms. All lights should be shielded and directed towards the immediate area on and around the platforms.

Existing Palmdale Station

Victorville Rail Connection

For the build alternatives with HSR feeder two rail connection approaches are proposed for connecting the HDC HSR Feeder/ Connector track alignment to the XpressWest rail network at Victorville. The proposed HDC rail tracks would connect to the southernmost limits of the XpressWest Victorville Station tracks. The Victorville XpressWest station, including the station footprint, would not be part of the HDC Project and is therefore not analyzed in this report. The tracks however would add more urban elements to the desert area that currently has the I-15 6 lane highway and existing freight train tracks. Viewers to this feeder connection are primarily motorist on the I-15 travelling at a high rate of speed and therefore have low exposure and sensitivity to the visual resource being impacted. Therefore the visual impact is not substantial.

High Speed Rail Traction Power Sub-Station (TPSS) and radio tower sites

TPSS and radio tower sites with 20’ wide access roads for each site are proposed in conjunction with the High Speed Rail. The TPSS design should be consistent with the other subs-stations along the alignment and therefore will be visually compatible with rest of the alignment. Radio towers should be painted or stained a color that is dominant in the area, for example tan in the desert area, to lessen the visual impact. Locations for the TPSS and radio tower sites should be in areas where visual intactness and unity are not greatly impacted.

Example of a typical TPSS

Summary of Visual Impacts by Alternative

A summary of visual impacts has been prepared for the following alternatives:

No Build Alternative

Under the No Build alternative no new transportation infrastructure would be built within the project area. Traffic circulation and congestion currently experienced would remain from increasing transportation demand. There would be no visual impacts.

Freeway/Expressway Alternative (HDC Highway Only)

This introduction of large-scale manmade elements would alter the visual character of the project area. Due to both the new roadway facility and roadway widening the color and texture of the desert landscape will be changed to include more un-natural smooth paved, manmade elements. The proposed 6 ft high elevated roadway alignment will negatively affect visual intactness and unity of the view by removing some of the native vegetation and blocking the views of the open desert landscape. Views of the open land, native vegetation and seasonal water will be obstructed and overwhelmed by the proposed bridges. The expansive horizontal character of the existing views will be impacted with the addition of the vertical elements such as pillars for bridges and walls. Soundwalls will block views of native vegetation, mountains and reduce the sense of openness that is a major characteristic of the desert region. Depending on the time of day, viewer location, and viewer movement the construction and operation of the proposed project would create new sources of light and glare that would adversely affect day and nighttime views in the area. Variations A**,** B and D have similar visual impacts to what was just described. Variation E has similar visual impacts as the other Variations described above with the additional impact of two bridges over National Trails Highway. The horizontal character of the existing views will be impacted with the addition of the bridges. The bridges will block views of mountains, native vegetation and sense of wide open views. The overall visual impact for this Alternative is characterized as moderate.

Freeway/Tollway Alternative (HDC highway with tollway)

This Alterative has similar visual impacts as the Freeway/Expressway Alternative (Avenue P-8, I-15 and SR-18) (With 4 Variations) described above.

Freeway/Expessway Alternative with High Speed Rail Feeder Service

This Alterative has similar visual impacts as the Freeway/Expressway Alternative described above with the addition of High Speed Rail Feeder Service.

Freeway/Tollway Alternative with High Speed Rail Feeder Service

This Alterative has similar visual impacts as the Freeway/Expressway Alternative with High Speed Rail Feeder Service described above.

X. PROJECT VISUAL IMPACT SUMMARY

The visual effects of the HDC project (all build alternatives) can be summarized by saying that manmade elements will become more dominant in the mostly natural location. The natural character will be changed to include more manmade elements. The increased roadway width and the HDC elements will negatively affect visual vividness, intactness and unity. The color and texture of the desert landscape will be changed to include more smooth paved manmade elements. In some instances proposed soundwalls will negatively affect visual vividness, intactness and unity of the view.

The largely expansive horizontal character of the desert will be changed to include more vertical elements. The horizontal character of the existing views will be impacted greatly with the addition of the vertical pillars of the bridges and viaducts. This contrast of horizontal and vertical elements will be incompatible and change the visual character. The proposed bridge structures will negatively affect visual vividness, intactness and especially unity of the view.

New roadway, overpasses, bridges, train tracks and bike path will obstruct and overwhelm the views of the trees, water, the buttes, hills, mountains and open land. Soundwalls will block the views of the trees, houses, mountains and sense of openness. This would result in a lowering of the visual quality.

The primary viewers of the change will be motorists and rail passengers. The most sensitive viewer to the change will be residential and recreational area users. The overall viewer response rating is moderate. The overall visual impact is characterized as moderate.

XI. TEMPORARY CONSTRUCTION VISUAL IMPACTS

Expected duration of construction is approximately 5 years. Specific funding and construction strategies for the project have not been defined at this time. As a result, no exact construction timeline or phasing has been identified. Given the magnitude and length of the project, it is likely that construction would be divided and carried-out in separate contracts, along separate segments over a period of years. In other words, construction of the entire project would not occur along the total length of the corridor all at one time. An analysis of the project indicates that each Alternative would cause at a minimum a short-term (up to approximately five years) reduction in existing visual quality.

Short term impacts would diminish as the proposed replanting matures. The long-term visual impacts would be substantially reduced with the implementation of the recommended mitigation measures. Temporary Construction visual impacts due to the contractor's operations such as night lighting, dust, temporary structures, hauling materials, contractor yards, and detours will most likely occur. In addition, required safety devices such as orange cones, fencing and signage would affect views. Workers would be present and visible throughout the construction phases. Views of stopped and slowed vehicles on the highway would also increase due to construction-related traffic delays. On certain local roadways, visibility of vehicular traffic may increase. Additional vehicles, equipment, materials, safety devices and workers would not be unexpected visual elements seen at a construction site.

XII. CUMULATIVE VISUAL IMPACTS

Cumulative impacts are those resulting from past, present and reasonably foreseeable future actions, combined with the potential visual impacts of this project. Foreseeable projects considered to have potential for cumulative impact of this project have been identified in Section 3.7 Cumulative Impacts of the Environmental Impact Study. For this project, it has been determined that cumulative effects would introduce new urban visual features into the open, expansive undeveloped desert, as well as changes to urban and suburban areas. The proposed project, in combination with the past, present, and future pro-

jects within the area of cumulative analysis would have the potential to create a cumulative impact to visual resources. Motorists and residential viewers will be affected by this change. The cumulative change would be slightly adverse.

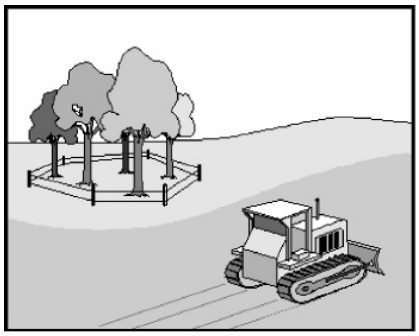
XIII. AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

Caltrans and the FHWA mandate that a qualitative aesthetic approach should be taken to address visual quality loss in the project area. This approach fulfills the letter and the spirit of FHWA requirements because it addresses the actual cumulative loss of visual quality due to a project. This approach also results in avoidance, minimization, and/or mitigation measures that can lessen or compensate for a loss in visual quality. The inclusion of aesthetic features in the project design, discussed in *Section III*, can help generate public acceptance of a project. This section describes additional avoidance, minimization, and/or mitigation measures to address specific visual impacts. These will be designed and implemented with concurrence of the District Landscape Architects.

The following measures to avoid or minimize visual impacts shall be incorporated into the project:

Existing Vegetation

1. To the extent practicable, preserve existing vegetation through thoughtful alignment of the route so that large areas of vegetation are not in the alignment's path. During construction, take good care to minimize disturbance of and protect in place the existing native vegetation, such as native riparian vegetation, California juniper, and Joshua trees, as much as possible.



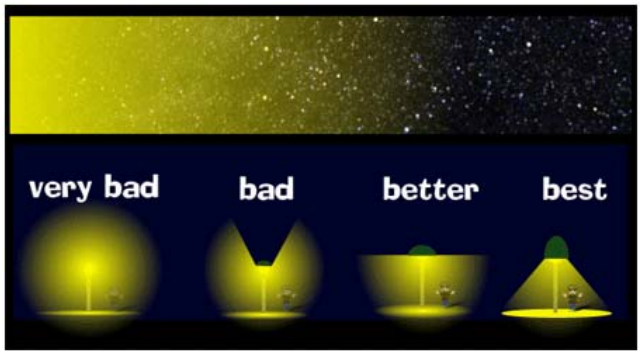
Lighting

2. A light fixture that cast enough light so that the project can reduce the number of lighting standards required to minimize visual intrusion.

3. Use context sensitive street lighting designs. The project's lighting design shall be consistent with Caltrans, County, and City lighting guidelines and standards and will be developed in coordination with Caltrans Landscape Architecture staff for areas within state right-of-way as well as with City and County staff.

Dark-Sky Compliant Lighting

4. To preserve the dark night sky as a natural resource in the desert region communities, dark-sky compliant lighting should be selected to minimize light pollution cast into the sky while maximizing light cast onto the ground, as appropriate. A lighting plan shall be developed that requires project lighting to be appropriately shielded. It is a goal of the Los Angeles County Specific Plan and the County of San Bernardino's 2OO7 General Plan to preserve the dark night sky as a natural resource in the Desert Region communities.

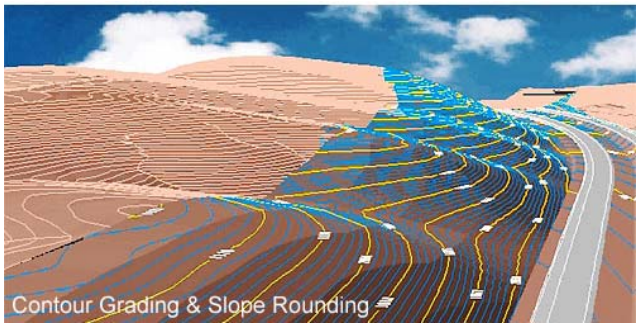


Signage and utility cabinets

5. The project should consolidate signs to minimize visual clutter. Lack of visual obstructions, such as cables and billboards is desirable
6. To the extent practicable, place traffic control cabinets, irrigation controller cabinets, electrical systems cabinets, etc., so that are not in direct view of the public.

Grading

7. Grading shall appear natural through slope rounding that facilitates a smooth and seamless transition from existing to new slopes. Where appropriate, geomorphic grading shall be used to produce stable surfaces that are aesthetically pleasing, encourage vegetative diversity, provide improved habitat and decreased maintenance.



Structures

8. To the extent practicable, keep elevated structures, such as bridges over waterways and over-passes, viaducts for the roadway, and the HSR line, as low as possible or design to integrate them within the surrounding environment.

Context Sensitive Design

9. Use context-sensitive aesthetic treatments on structures and architecture. Bridges will be aesthetically pleasing incorporating context sensitive solutions, including features that provide an expression of the “sense of place” for the HDC communities, for the structures to meet the desired goals of the cities of Palmdale, Lake Los Angeles, Adelanto, and Victorville, the Town of Apple Valley, Los Angeles County, San Bernardino County, and Caltrans.
10. Provide context sensitive design through color incorporated into the project elements. The aesthetic features shall be developed in coordination with Caltrans Landscape Architecture
11. The planting of trees will be extremely important for the "softening" of all structures including walls & bridges, to bring down the scale of these very large urbanized structures, as appropriate as determined by the District Landscape Architect.

Sound Walls

12. Texture and color the walls (i.e., soundwalls/retaining walls) facing public use areas (i.e., streets, private yards, or recreation) with a mid-range to dark recessive color compatible to adjacent (i.e., native) soil to minimize glare and reduce their visual disruption. This will minimize/mitigate community impacts by enhancing context-sensitive design.

13. Planting of vines to deter graffiti on all walls as appropriate as determined by the District Landscape Architect and will be part of the highway planting plans.

Vista Points

14. Choco Vista Point vista point will be enhanced with natural stone perimeter wall and signage with information about the site.

The Vista Point at Deadman's Point will have a view deck accessible for disabled persons with a safe viewing platform. A natural stone perimeter wall circling the area will include bollards for bicycle parking. Interpretive signage will make the site meaningful and educational for visitors

Landscape Architecture

15. Plant native vegetation to replace vegetation that will be removed or affected by construction activity within the Desert Area Landscape Unit, Seasonal Creeks Landscape Unit, and Mojave River Landscape Unit. The minimum replacement planting ratio should be 1.5:1 as space allows.

16. Plant vegetation that is consistent with the character of the adjacent community landscape in the Residential Areas Landscape Units and the Commercial and Industrial Area Landscape Unit.

17. Where feasible in the urban areas, vegetation will be planted between roadway and communities, to provide a more natural visual buffer.

Summary of Avoidance, Minimization, Mitigation Measures by Alternative

The table below summarizes the numbered avoidance, minimization, and/or mitigation measures from above for each Alternative.

TABLE 139. Summary of Avoidance, Minimization, and/or Mitigation Measures by Build Alternative

ALTERNATIVE	AVOIDANCE AND MINIMIZATION	MITIGATION
Freeway/Expressway and Freeway /Tollway Alternatives (Variations A, B, C, D)	1,2,3,4,5,6,7,8	9,10,11,12,13,14,15,16,17
Freeway/Expressway and Freeway Tollway Alternatives with High Speed Rail Feeder Service (Variations A, B, C, D and Options Variations 1 and 7)	1,2,3,4,5,6,7,8	9,10,11,12,13,14,15,16,17

XIV. CONCLUSIONS

The recommended measures would reduce the project's visual impact, however the inherent visual change associated with an increase in visual scale and additional hardscape would be unavoidable and noticeable even with implementation of the measures listed above. The primary overall visual effect of the project would be the increased urban character caused by the additional highway lanes, reduction of desert landscape, and at some locations the construction of sound walls and structures that will block views, regardless of the project alternative. The intent of the above measures would be to reduce the urbanizing affect of the project. The listed measures would lessen the negative visual change to the corridor. Overall however, viewer sensitivity and response to change is expected to be moderate.

Visual mitigation for adverse project impacts addressed and summarized in the previous section will consist of adhering to the design requirements in cooperation with the District Landscape Architects.