

# **Appendix A: Visual Impact Assessment**

# Visual Impact Assessment Memorandum

## PSR#TD004 Baker Boulevard Bridge Replacement over Mojave River Project

District 8 – SBD  
STPL – 5954 (193)

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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.

Per Exhibit D, Article XVIII, Section A. (1) of the contract: (c) 2020 California Department of Transportation.

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## List of Acronyms and Abbreviations

AVE	Area of Visual Effect
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
FHWA	Federal Highway Administration
<i>Handbook</i>	<i>Caltrans 2023 VIA Handbook</i>
NEPA	National Environmental Policy Act
PM	Post mile
Project	Baker Boulevard Bridge over Mojave River Replacement Project
VIA	Visual Impact Assessment

# 1 Introduction

## 1.1 Purpose of Report and Assessment Methodology

The purpose of this Visual Impact Assessment (VIA) memorandum is to document potential visual change in the Area of Visual Effect (AVE) as a result of the bridge replacement project. This memorandum follows the guidance outlined in the publication *Guidelines for the Visual Impact Assessment of Highway Projects*, published by the Federal Highway Administration (FHWA) in January 2015. The formatting of this template is aligned with the directions and examples included in the *Caltrans 2023 VIA Handbook (Handbook)*, available at: <https://dot.ca.gov/programs/design/lap-visual-impact-assessment>

## 2 Establishment Phase

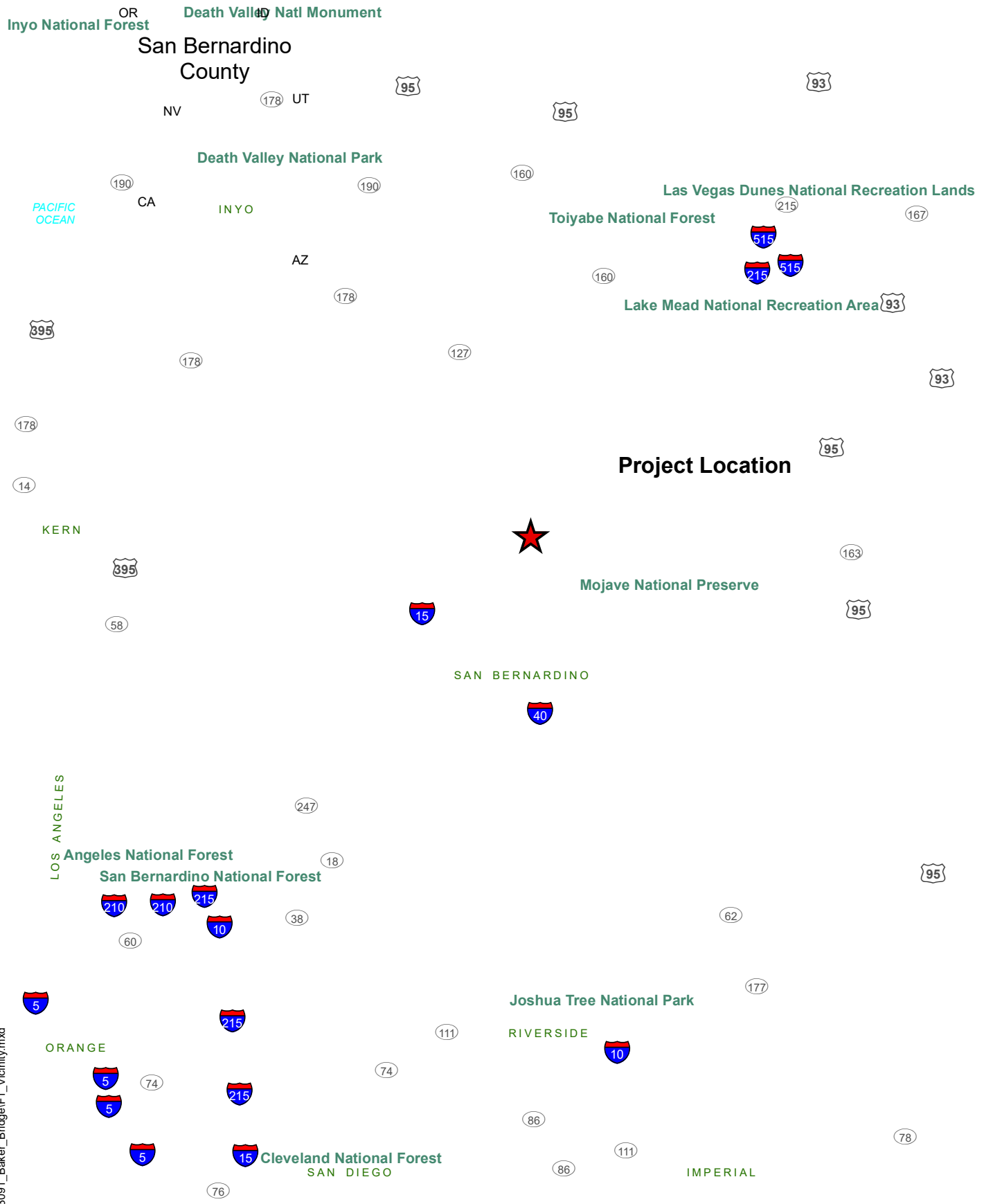
### 2.1 Project Location and Setting

The Baker Boulevard Bridge over Mojave River Replacement Project (Project) location and setting provide the context for determining the type of changes to the existing visual environment. The proposed Project is on Baker Boulevard in the census-designated community of Baker in north-central San Bernardino County, California (**Figure 1. Project Vicinity** and **Figure 2. Project Location**).

The population of Baker is approximately 751 persons. Baker is on a desert plain with several small mountains nearby. The 1.6-million-acre Mohave National Preserve, managed by the National Park Service, is located south of I-15. The Soda Mountains Wilderness is located approximately 2.75-miles north and east of the community of Baker. The 22,366-acre Hollow Hills Wilderness Area managed by the Bureau of Land Management (BLM) is located to the north.

Baker Boulevard has a southwest to northeast alignment through the community of Baker. Interstate 15 bypasses the community to the south and is approximately 900-feet south of and parallel to Baker Boulevard. The I-15 on- and off-ramps connect to Baker Boulevard east and west of the community. Just east of the Baker Boulevard bridge is the I-15/SR-127 separation bridge interchange. Kelbaker Road connects to the interchange from the south then crosses over I-15 where connects to State Route 127, also known as Death Valley Road. The Baker Boulevard Bridge is visible from the separation bridge and from I-15 east- and west-bound traffic from viewpoints west of the separation bridge.

There are number of single-story buildings in the community of Baker. Within sight of the bridge are several gas stations and restaurants. There is existing lighting on wood poles approximately 95-feet west of the southern bridge abutment and 210-feet east of the northern bridge abutment. Wooden poles that carry overhead utility lines are located next to the bridge abutments on the south side of the road. Other overhead utility lines cross the Mojave River downstream and upstream of the existing bridge. The existing bridge has wood barrier rails painted white.



V:\3091\_Baker\_Bridge\F1\_Vicinity.mxd

Source: ESRI 2008; Dokken Engineering 10/24/2024; Created By: amyd



0 10 20 30  
Miles

**FIGURE 1**  
**Project Vicinity**

PSR#TD004 Baker Boulevard Over Mojave River Bridge Replacement  
STPL-5954(193)  
Baker, San Bernardino County, California

**Project Location**

127

**Baker Blvd**

**Baker**



**Kelbaker Rd**

**Mojave National Preserve**

v:\1836\_11thStBridge\Cultural\F2\_Loc\_10-12-10.mxd

Source: ESRI World Street Maps Online; Dokken Engineering 2/26/2025; Created By: amyd



0 0.5 1 1.5 2 Miles

**FIGURE 2  
Project Location**

PSR#TD004 Baker Boulevard Over Mojave River Bridge Replacement  
STPL-5954(193)  
Baker, San Bernardino County, California

- Project Area**
- Potential Staging Area**
- Bridge Piers**
- Bridge and Abutment Limits**
- Sidewalk, Driveway Conformances, Curb, and Gutter**
- Grading Limits**
- Pavement Striping**
- Permanent Access Ramp (paved)**
- Edge of Roadway**
- Rock Slope Protection**
- Parcel Boundary with APN**
- Roadway Approach Work Limits

*Mojave River  
Channel  
(Over-flow Channel)*



Baker Blvd

Mid-Block Pedestrian  
Crossing to be Removed

Bridge 54C0127  
To Be Replaced

Roadway Approach Work Limits



V:\3091\_Baker\_Bridge\F3\_Project\_Features\_2024\_10.mxd

Source: ESRI Maps Online; Dokken Engineering 1/31/2025; Created By: amyd



0 200 400 600 800 1,000  
Feet

**Figure 3  
Project Features**



The proposed Project is located in the Mojave Desert Floristic Province (Jepson 2024). Baker experiences a desert climate that consists of hot, dry summers and cool winters with little precipitation. The mean average annual high temperature is approximately 93.8 degrees Fahrenheit (°F) in July, and a mean annual low temperature of 47.5°F in December. The region averages 3.72 inches of precipitation annually (U.S. Climate Data 2024). The topography within the study area is flat and the elevation of the Project ranges between approximately 920 feet to 940 feet above mean sea level. The proposed Project is located in the Baker (3511631) 7.5-minute USGS quadrangle.

Land cover within the Project area consists of urban/barren, disturbed areas, saltbush scrub, desert sink scrub, and the Mojave River Channel. Urban/barren areas are characterized by urban structures, dirt roads, pavement, landscaping, and other developed areas. Disturbed areas include the undeveloped lots adjacent to Baker Boulevard that lack substantial vegetation and appear to be highly disturbed by human activity. This land cover type also includes the dirt levees, access roads, and graded areas utilized by the Flood Control District to maintain the Mojave River Channel. South of Baker Boulevard, disturbed land cover occurs in the upland areas directly adjacent to the Mojave River Channel. Saltbush scrub and desert sink habitats in the study area are highly fragmented and occurs along the margins of developed or highly disturbed areas. The Mojave River Channel links Soda Lake (Dry Lake) in the south to Silver Lake (Dry Lake) in the north. The channel primarily flows underground. Surface water is typically only present immediately following rain events but can pool near the existing bridge during the cooler months. Vegetation within the channel is similar to adjacent upland habitat and consists of stands of big saltbush and saltcedar.

## **2.2 Project Description**

San Bernardino County, in cooperation with the California Department of Transportation (Caltrans), proposes to replace the existing two-lane Baker Boulevard Bridge (54C0127) with a new four-lane, 10-span cast-in-place reinforced concrete slab structure founded on cast-in-drilled hole piles (CIDH) or driven concrete pile extensions.

### **2.2.1 Existing Bridge**

The existing bridge was originally built in 1931 as a 93-foot (plus or minus) 5 span simple-supported stringer timber bridge crossing the Mojave River Channel on Baker Boulevard (formerly US 91 and State Route 31). It was repaired and lengthened in 1938. Repairs conducted in 1938 included replacement of all untreated Douglas Fir timber within the existing bridge with Redwood; the addition of 9 new spans to the west and 8 new spans to the east increasing bridge overall length to 408-feet (plus or minus), and channel excavation for the length of the structure to maintain a minimum clearance of 6-feet below the bottom stringer (soffit) of the bridge. The bridge currently exists as a 22-span simple-supported stringer timber bridge with a 5- to 6-inch-thick continuous cast in place reinforced concrete deck overlain with asphalt concrete and closed end reinforced concrete strutted abutments supported on Coastal Douglas Fir (CDF) timber piles. The existing bridge deck has a flat profile. The bents and abutments are set at a 45-degree skew to accommodate flows within the Mojave River Channel below. Timber railing and plywood planking accommodating an elevated 2-foot-wide walk on both

sides of the bridge is worn and deteriorating. Current sufficiency rating per Caltrans biannual bridge inspection reports (BRIS) for the structure is roughly 76.

The Project includes the demolition of the existing two-lane 22 span simple-supported stringer timber bridge and its replacement with a four-lane, 10-span cast-in-place reinforced concrete slab structure founded on cast-in-drilled hole piles (CIDH) or driven concrete pile extensions (Figure 3. Project Features). This proposed structure will meet and address County and American Association of State Highway and Transportation Officials (AASHTO) standards and criteria, or equivalent. The proposed bridge would be 96-feet 4-inches wide as measured from the outside face of the barrier rail system. The proposed bridge includes sidewalks on both sides of the bridge, wide shoulders, four lanes (two in each direction), and a median. The width of the proposed bridge would accommodate future improvements to Baker Boulevard, which is currently a two-lane facility. The proposed Project's bridge deck will include a highpoint at the center of the bridge to provide for positive surface drainage. The highpoint raises the vertical profile of the road approximately 1.5-feet. The bridge soffit elevation is designed to pass the anticipated flow and water surface elevation for a 100-year storm event.

The proposed Project will install sixteen Type 15 street light poles (luminaires) and remove four existing light poles. The new street light poles will be located opposite one another on both sides of the street at an approximately 200-foot spacing along the limits of the road improvements.

The approach roadway work extends approximately 650-feet west of the bridge and approximately 500-feet east to Death Valley Road (State Highway 127). Driveway conforming to the existing commercial centers will be incorporated. The bridge width and approach would accommodate the existing and projected ultimate roadway improvements.

The proposed Project may construct a San Bernardino County (SBC) Flood Control District (FCD) channel access ramp downstream of the bridge along the eastern levee for channel maintenance and to facilitate bridge inspection. The ramp would include the following requirements:

- 24-foot-wide commercial driveway approach from the roadway (Baker Boulevard) per SBC current Standard Plan 129 (modified to accommodate ADA access requirements within the public right-of-way)
- All-weather surface roadway extending from said approach within SBC FCD R/W
- 50 feet from the edge of the roadway R/W begin construction of a paved concrete ramp to the invert of the channel.
- Access ramp to the channel invert minimum of 15-feet wide with grade/slope not to exceed 10% per Detention Basin Design Criteria for SBC, Section 9.
- 20-foot Dike/levee (top width) alongside/parallel to the access ramp
- 30-foot-long landing lying parallel to the channel embankment at the bottom of the ramp.

- Outside vehicle turning radius of 60-feet and an inside turning radius of 25-feet along the maintenance access road and at the terminus of the proposed landing within the channel.
- 15-foot (minimum) horizontal access gate opening per SBC FCD Standard Plan 209.

It is anticipated that excavators, dozers, dump trucks, concrete trucks, drill rigs and concrete pumps will be required to rehabilitate and widen the existing road surface. Temporary and permanent right of way acquisition may be required for construction. The existing structure is well suited for either a 2-stage, partial removal of the existing bridge or detour (1.25-mile detour length) using adjacent SR-127/I-15 and the local road network to provide a complete closure for construction. Both options will keep the new bridge and approach road widenings within existing ROW. The Project will require relocation of overhead utilities and a waterline affixed to the existing bridge superstructure (downstream).

This Project is funded through both local and federal funds and is subject to compliance with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA). The lead agency for CEQA compliance is the County and the NEPA lead agency is Caltrans.

### Project Aesthetic Features and Elements

The new structure over the Mojave River will follow aesthetics developed by the Project engineer with potential inclusion of architectural treatment along the sides of the structure. Aesthetic features will be presented to the County and stakeholders throughout the design phase for consideration in order to address visual impacts.

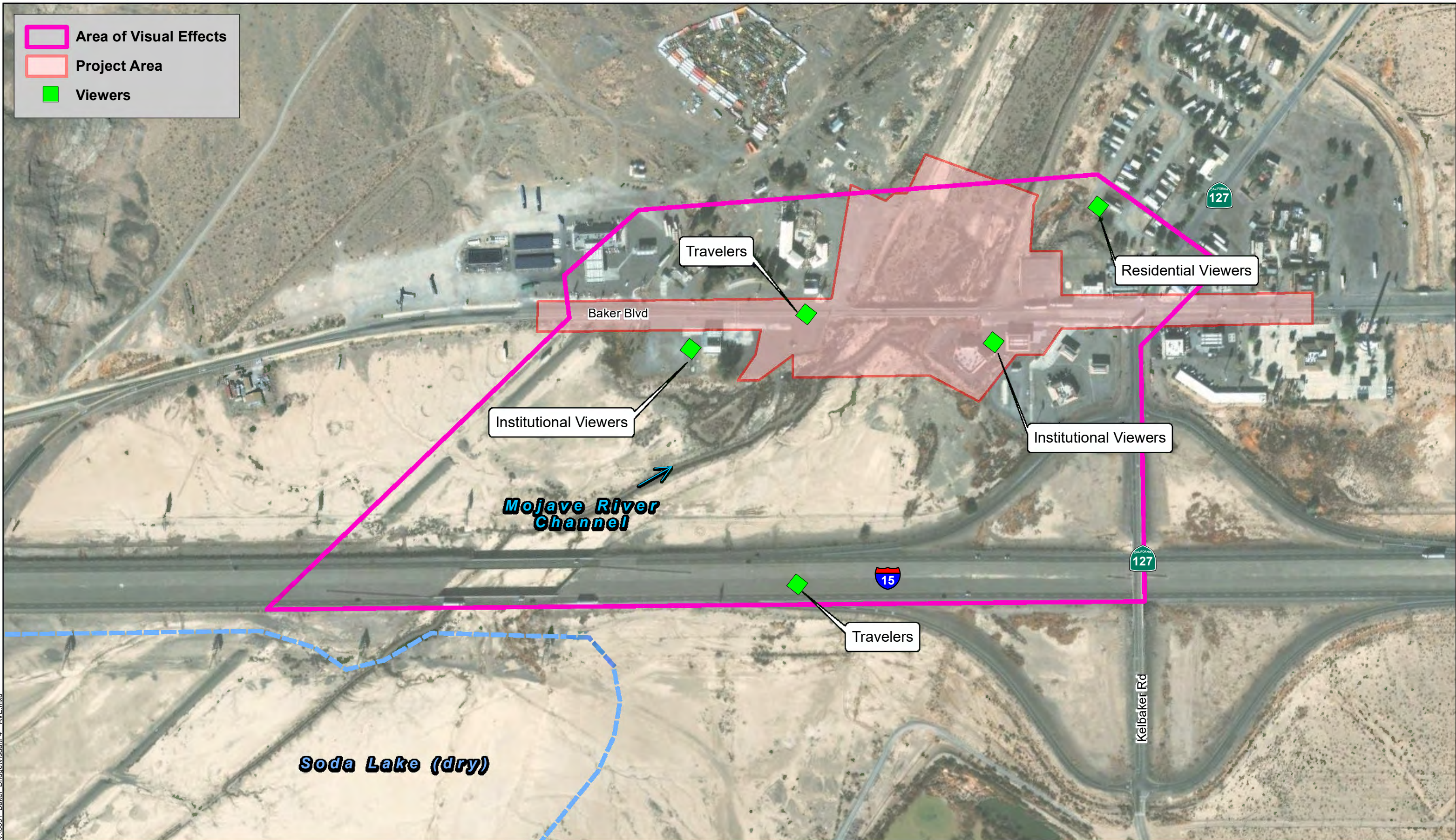
The Project proposes to use either a Type 732SW or a Type 85SW concrete barrier system. Either barrier system, as well as the proposed cast-in-place reinforced concrete slab, can incorporate various architectural treatments including form liners, veneers, stains, and integrally colored concrete.

Bridge lighting is also proposed. Luminaires are proposed on each edge of the bridge deck at an approximate spacing of 200-feet. This spacing is based on standard lighting spacing for Major Highways and will provide adequate light to comply with the requirements of ANSI/IES RP-8, *Recommended Practice for Lighting Roadway and Parking Facilities*. Several types of luminaries could be selected; Type 15 street light poles are proposed. The existing streetlights on Baker Boulevard are “standard” style luminaries.

### **2.3 Description of Area of Visual Effect (AVE)**

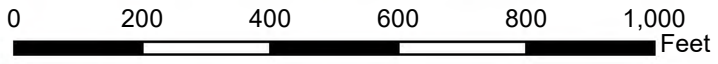
The AVE for the Project was developed based on perspective views of the road, from the road, and the location of proposed Project features. **Figure 4** presents a map showing the AVE.

Area of Visual Effects  
 Project Area  
 Viewers



V:\3091 Baker Bridge\Visual\F4\_AVE.mxd

Source: ESRI Maps Online; Dokken Engineering 11/7/2024; Created By: amyd



**Figure 4**  
**Area of Visual Effects**

Baker Boulevard Over Mojave River Bridge Replacement  
STPL-5954(193)  
Baker, San Bernardino County, California

## **2.4 Visual Resources and Scenic Resources**

Scenic resource and visual resource identification during the Establishment Phase was conducted based on a desktop search of available maps, regional and local plans, and other databases. In the context discussed in this memo, “scenic resources” are those officially designated by federal, state, regional, tribal, or local authorities; “visual resources” are those that exist in the Project AVE without being officially recognized.

### National Scenic Byway Designation

The AVE does not contain or have views of any officially designated National Scenic Byways (FHWA, 2024).

### State Scenic Highway Designation

The AVE does not contain or have views of any state scenic highways (Caltrans, 2024). Interstate 15, parallel to Baker Boulevard, is eligible for designation as a State Scenic Highway from Post Mile (PM) 76.9-136.6. PM 136.6 is just east of the SR-127 (Death Valley Road) overcrossing of I-15. The Baker Boulevard Bridge is visible from I-15 which is approximately 830-feet southeast. The entire length of SR-127 from I-15 through to Inyo County is eligible for designation as a State Scenic Highway.

### Classified Landscaped Freeway

The Project area does not reside within a classified landscaped freeway (Caltrans, 2024).

### Local Scenic Resources

San Bernardino County’s Policy Plan serves as the County’s General Plan for the unincorporated areas. The Aesthetics section of the Draft EIR for the Policy Plan describes the County as possessing a variety of unique and important visual resources, including numerous expansive vistas of forests, hillsides, mountains, and desert landscapes.” The North Desert Region, where Baker is located, contains “vast stretches of undeveloped desert landscapes that, due to the general lack of development, trees, and other visual obstructions, feature countless panoramic long-range views.”

The Policy Plan DEIR notes that I-15 is an “Eligible State Scenic Highway – Not Officially Designated” in the North and East Desert Regions. Figure 5.1-1 “County Designated Scenic Routes” identifies I-15 as a County Scenic Route and Eligible State Scenic Highway from Baker west towards Barstow. The Figure identifies SR-127 as an Eligible State Scenic Highway.

### 3 Inventory Phase

#### 3.1 Description of Landscape Visual Character

As part of San Bernardino's Policy Plan, it developed a Countywide Plan with Community Action Guides (CAG). The Baker CAG describes Baker as "a family-oriented community with a small-town feel. Baker values the quietness, open space, and views of the desert." Baker's most prominent feature is a 134-foot-tall thermometer along I-15, constructed in 1990 by Willis Herron, to commemorate the hottest temperature ever recorded in the Death Valley area. The community consists of primarily commercial uses including rural and highway commercial. The residential developments have minimum lot sizes from 1/3 acre to 40 acres. The commercial uses are chain stores, restaurants, motels, and gas stations.

The existing visual character of the AVE is dominated by transportation facilities and developed environment. The Baker Boulevard Bridge is a central feature within the AVE. The 410-foot-long bridge spans the Mojave River Channel. The San Bernardino County Flood Control District periodically conducts maintenance within the channel. At either end of the bridge there are few vertical impediments that block the views of the opposite bank. The narrow shoulders on the bridge with the low barrier rail comprised of "4x4" posts and two "2x4" rails and the wood deck mounting system painted white serve as a frame that guides the viewer to look down the bridge to the other side of the town.

The AVE includes I-15 from west of the I-15/SR-127 separation bridge interchange where the Baker Boulevard Bridge is visible from I-15. The separation bridge is included as the Baker Boulevard Bridge is visible from the elevated structure. Views of the Baker Boulevard Bridge from I-15 east of the separation bridge are blocked by the separation bridge abutments. Within the AVE, the cultural environment consists of Baker Boulevard from past the proposed road conforms as well as the following businesses fronting Baker Boulevard:

- Shell Gas Station with Dairy Queen Grill and Chil,
- TESLA EV Charging Station
- Mobil Gas Station and Food Shop,
- Chevron Gas Station with Taco Bell,
- ARCO Gas Station,
- Baker Market,
- Los Dos Toritos Restaurant,
- Mad Creek Café, and
- 76 Gas Station and County Store.

Several closed businesses occur in the AVE, including the Royal Hawaiian Motel on the southwest corner of the bridge. The motel is in a dilapidated state with deteriorating roofs, graffiti on the buildings, some dead landscaping, weeds, and trash on the grounds.

The Project environment includes I-15, the I-15/SR-127 separation bridge, utility poles, street lighting, roadway signs, and undeveloped open land east and west of I-15. Whereas I-15 presents straight lines, the on- and off-ramps present sinuous lines. The pavement is colored gray with yellow and white lines to delineate the road, as necessary. The median separating the eastbound and westbound lanes on I-15 is unvegetated with a sandy grey color.

The separation bridge contains horizontal lines and is colored grey and made of smooth-textured concrete. The utility poles present vertical lines and contain brown coloring as well as grey coloring. The utility lines which connect the utility poles are thin horizontal lines with grey and/or black coloring. The existing roadway signs vary in shape and are supported by thin gray cylindrical forms, and they are made of galvanized steel with smooth texture. The signs vary in color, either yellow, green, or red and are also made of galvanized steel with smooth texture.

Existing lighting in the area consists of streetlights along the adjacent frontage roads and residential streets and lighting from residential houses and commercial developments. The Project will retain dominant linear features of the bridge. The Project will positively influence the Project environment by introducing an aesthetically pleasing concrete bridge with sidewalks.

Outside of the AVE, the cultural environment consists of other commercial development on Baker Boulevard and a mobile home park located between the Mojave River and SR-127. The commercial development contains horizontal and vertical lines and many bright colors on the gas stations.

The natural environment in the AVE consists of the Mojave River Channel, saltbush, and saltcedar. The existing lines in the natural environment are irregular and the form is heterogeneous. The vegetation in this area varies from deep greens to browns depending on the season and the texture is rough. The sparsely vegetated dry lakebed of Soda Lake (Dry Lake) is visible to the south. Low vegetation scrub across the plain does not inhibit views of the mountains. Outside the AVE, there are wide open landscape views across the plain towards small mountains that rise 500 to over 1,600-feet off the valley floor. The summits of Nickel Mountain and Otto Mountain are west and northwest a short 0.8-mile and 1.5-mile away, respectively. The Soda Mountains frame the viewshed to the west; the Silurian Hills and Turquoise Mountains are to the northeast; the Mid Hills to the east; and the Granite and Providence Mountains to the south.

### 3.2 Description of Landscape Visual Quality

The vividness of the overall landscape and natural environment, which consists of the low shrub vegetation in the Mojave River Channel and mostly unobstructed views across the desert plain to the mountains makes the landscape memorable.

The cultural environment, which consists of the developed land surrounding the AVE, and Project environment, which consist of Baker Boulevard, I-15, and associated commercial and retail features, dominate the area. Intactness is low since the urban development in the area disrupts the landscape character.

Unity is low since design features of the built environment and natural environment are not harmonious with the landscape topography or are balanced with each other.

### 3.3 Viewers

There are two major types of viewer groups for highway projects: neighbors and travelers.

Neighbors are people who have views to the road. For this Project neighbors include:

- Residents
- Institutional viewers (workers at the service stations and other retail stores in the vicinity)

Travelers are people who have views from the road. For this Project travelers include:

- Motorists
- Bicyclists
- Pedestrians

The Project will replace the existing bridge with a wider bridge. Three additional luminaires will be added. The barrier rail will look different but retains a low profile with openings. Since viewer sensitivity is moderately high and viewpoint sensitivity is moderate, neighbors (people with views *to* the transportation project), travelers (people with views *from* the transportation project), and viewpoints will be affected by the proposed Project. See below for an analysis regarding viewer and viewpoint sensitivity.

#### Viewer Sensitivity

To determine viewer sensitivity, three attributes for viewer exposure (proximity, extent or number of viewers, and duration) and three for viewer awareness (attention, focus, and protection) were evaluated.

The neighbors viewer groups would have a moderately high viewer exposure since they are in proximity to the Project features. The neighbors viewer groups would have direct views of the Project features, and duration would be high due to their fixed position. For the neighbors viewers group, viewer awareness is moderate as individuals in this viewer



group would be observant of the proposed changes. Broad and general views of the area would result in less sensitivity to visual changes.

For the travelers' viewer group, viewer exposure would be moderately high since they are travelling over the Project features. The extent would be moderately high as the travelers would have views of the Project and duration would be moderately low to low since they are only passing through the area. Viewer awareness would be moderately low since individuals in this viewer group would be preoccupied with other activities, have a broad and general view of the area, but are likely to value the natural setting of the existing bridge. Travelers on Baker Boulevard would have a different visual experience compared to travelers on I-15 as the travelers on Baker Boulevard see the road surface, rails, and luminaires but never a side view of the bridge. Travelers on I-15 see a side view of the bridge, rails, and, possibly, the pier columns. The bridge is 950-feet or more from the eastbound travel lanes and is not visually distinct as seen from I-15. Overall viewer sensitivity for neighbors and travelers is considered to be moderate.

### Viewpoint Sensitivity

Viewpoint sensitivity is a judgment of the scenic importance of a viewpoint and whether it is part of an identified scenic resource. Sensitive viewpoints can be scenic or visual resources, vistas, landscape, or ocean views important to neighbors or travelers.

According to the San Bernardino Policy Plan, I-15 is a County designated scenic route and eligible State Scenic Highway while SR-127 is also an eligible State Scenic Highway. At the intersection of SR-127 and Baker Boulevard, however, the developed area adjacent distracts from this resource. Therefore, viewpoint sensitivity is considered moderate.

## **3.4 Viewpoints**

Viewpoints can be vistas, open landscape views, ocean views, views of important mountains, views of historic or attractive buildings, rock outcrops, heritage trees, tree groves, etc. The importance of each viewpoint is determined by the level of scenic resource designation, the distance of the scenic or visual resource, and the visual quality of the scenic or visual resource. See section 3.3 for more information regarding viewpoint sensitivity.

## **4 Analysis Phase**

### **4.1 Evaluation of Visual Impact**

Visual impact is determined by combining visual change and visual sensitivity, which are analyzed below:

#### Visual Change

After analyzing visual compatibility and visual contrast (described below), visual change was determined. The overall visual change in the existing natural, cultural and Project environments created by the proposed Project will be slightly adverse.

### *Visual Compatibility*

The existing visual character is dominated by the developed environment and the Mojave River Channel with its low growing vegetation. The Project would result in temporary impacts to 1.30 acres of the desert sink scrub/Mojave River Channel and net permanent impacts to 0.0345 acres of desert sink scrub/Mojave River Channel. The Project would result in temporary impacts to 0.30 acres of saltbush scrub habitat and 0.0207 acres of permanent impacts to saltbush scrub habitat. The undeveloped open land located in the river channel will have a decrease in vegetation colors and textures and an increase grey color and human-made textures. Within the Project area, these habitats comprise 5.9 acres; thus, the permanent removal of 0.05 acres would impact a small percentage of vegetation that contributes to the visual character of the area. Impacts would be minimized and avoided with implementation of **VIS-1**.

In order to minimize visual impacts, aesthetic treatments may be applied to Project features to complement the visual character of the area. Overall, the Project would have a slightly adverse effect on visual character.

The Project would also have a slightly adverse effect on intactness since it would expand human made features in an area not currently developed. The road surface elevation, raised by 1.5 feet at the midpoint of the bridge, would introduce a slight change perceptible for the neighboring viewer group and an imperceptible change for the traveler viewer group. The proposed bridge deck would not block views up and down Baker Blvd or up and downstream of the Mojave River Channel. Lastly, the proposed Project would install lighting on poles on the new bridge. This lighting is not anticipated to result in substantial new light and glare impacts as the lights would be shielded, per **VIS-2**. Additionally, surrounding light from adjacent developed areas would still dominate the area.

Overall, the visual compatibility of the proposed Project with the existing natural, cultural, and Project environments will be slightly adverse.

### *Visual Contrast*

Currently, vividness of the overall landscape is moderately low as the dominate visual elements are plain and unmemorable and unity is low since Baker Boulevard, the surrounding developed land, and the natural environment are not balanced or in scale with each other. Applying aesthetic treatments on the new bridge, per **VIS-3**, will increase vividness by providing a memorable structure over a segment of the Mojave River Channel. The permanent removal of 0.05 acres of vegetation would impact a small percentage of vegetation that contributes to the vividness and memorability of the area. Aesthetic treatments, if included, on the bridge would ensure that the vividness of the existing environments would not further decrease. The unity of the Mojave River Channel would decrease since the Project would introduce a wider bridge. Overall, the visual contrast of the proposed Project with the existing natural, cultural and Project environments will have a slightly adverse effect.

## Visual Sensitivity

As discussed in Section 3.3, the overall visual sensitivity to the proposed Project in the existing natural, cultural, and Project environments will be moderate.

## Visual Impact

Overall visual impact was evaluated using descriptive values listed in section 4 of the *Handbook*. As visual change and sensitivity are of equal importance, the overall visual impact of the proposed Project on the existing natural, cultural, and Project environments will be a slightly adverse impact.

## CEQA Checklist Aesthetics questions:

Would the Project:

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

According to the San Bernardino Policy Plan Draft Environmental Impact Report, I-15 west of SR-127 is a County Scenic Route and Eligible State Scenic Highway. SR-127 is also an Eligible State Scenic Highway. The Baker Boulevard Bridge is visible from I-15 while the bridge railing is only visible from SR-127 when within the intersection. With the incorporation of the environmental commitment measures, the proposed Project will not have a substantial adverse effect on a scenic vista.

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

According to the State Scenic Highway Map and the San Bernardino Policy Plan Draft Environmental Impact Report, there are no officially state designated scenic highways within the proposed Project footprint. Therefore, there would be no impact.

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

The Project is located in the community of Baker, which is a nonurbanized area. Zoning within the Project area includes Commercial Highway, Rural Commercial, and Floodway. The Project would construct a replacement bridge over the Mojave River. The proposed Project would be consistent with the existing zoning. Aesthetic treatments would be applied to all Project features to minimize visual impacts, ensuring that the Project would not conflict with regulations governing scenic quality.

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

The proposed Project would install lighting on the bridge and the approaches along both sides of the road. The lighting associated with the proposed Project is not anticipated to result in substantial new light and glare impacts as the lights would be shielded, per measure **VIS-2**. Impacts are anticipated to be minimal.

## **5 Mitigation Phase (Environmental Commitments)**

### **5.1 Recommendations for Environmental Commitment Measures**

Environmental commitments have been proposed to lessen the visual impact of the Project, which may also help generate public acceptance of a Project.

The following environmental commitments may avoid or minimize negative visual effects and/or improve aesthetics:

- VIS-1:** Prior to the start of construction activities, temporary Environmentally Sensitive Area (ESA) fencing and/or desert tortoise DT exclusion fencing will be erected along the limits of the saltbush scrub habitat and desert sink scrub habitat impact areas to clearly demarcate their limits, if required by regulatory permits. Construction equipment and vehicles will be confined to designated access routes and work areas to minimize habitat disturbance. Vehicles and heavy machinery will avoid unnecessary idling and will be regularly maintained to reduce the risk of fluid leaks, which could contaminate nearby habitats. (same as Natural Environment Study BIO-3).
- VIS-2:** Street Lighting will be appropriately shielded. The Project's lighting design must be consistent with the County's lighting guidelines and standards.
- VIS-3:** The new structure over the Mohave River Channel will follow aesthetics developed by the Project engineer.

## **6 Conclusions**

The proposed Project is on Baker Boulevard over Mojave River in the community of Baker in San Bernardino County, California. There would be no substantial impacts on scenic highways, scenic vistas, or eligible or listed historic structures. Project construction activities would result in only temporary visual changes, lasting no longer than two years, which would not negatively affect viewers.

With implementation of **VIS-1** through **VIS-3**, visual impacts will be minimized. As part of the Project, aesthetics, e.g. the bridge rails, and other aesthetic features, may be applied to the bridge. Visual impact was determined to be slight adverse impact.

## 7 References

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Caltrans. Visual Impact Assessment Handbook. 2023. Available at: <<https://dot.ca.gov/-/media/dot-media/programs/design/documents/via-handbook--a11y.pdf>>

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San Bernardino County. Baker Community Profile. 2019. Available at: <[https://countywide.sbcounty.gov/wp-content/uploads/sites/122/2020/07/15\\_Baker\\_CAG\\_2020.pdf?x23421](https://countywide.sbcounty.gov/wp-content/uploads/sites/122/2020/07/15_Baker_CAG_2020.pdf?x23421)>.

## **Appendix A: Scoping Questionnaire**



[Home](#) [Programs](#) [Design](#) [Visual Impact Assessment](#)

[VIA Questionnaire](#)

## Questionnaire to Determine Visual Impact Assessment (VIA) Level

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

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

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

[The Standard Environmental Reference, Environmental Handbook, Volume I: Chapter 27-Visual & Aesthetics Review](#)

lists preparer qualifications for conducting the visual impact assessment process. Landscape Architects receive formal training in the area of visual resource management and can appropriately determine which VIA level is appropriate.

## Preparer Qualifications:

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

## Calculate VIA Level Score

### Project Information

#### Project Name

PSR#TD004 Baker Boulevard Bridge Replacement over Mojave River Proje

#### Project Identification #

STPL-5954(193)

#### Project Location (Dist-Co-Rte-PM)

District 8 – SBD

#### Preparer Name and CA LA License Number

Jeffery Little

#### Caltrans District Landscape Architect (DLA)

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

For Projects on State Highway System Only, Enter DLA Name

#### Visual Features of Project and its Alternative(s)

Replacement of two lane timber bridge with a 4 lane concrete bridge.

#### Additional Visual Context Remarks

Vegetation removal, rock slope protection installation, additional light po

## Regulatory Framework

Potential Agencies that may have to be Involved

Federal  State  Local  Tribal  Other

## Visual Change and Sensitivity

Landscape Observations

Water  Visually dominant landforms  Natural vegetation  
 Visually Appealing Structures  Other features of interest

Impact of Project on Natural, Cultural, and Existing Project Environments



Highly compatible  Moderately compatible  Not compatible

Other

Landscape Context and Development Patterns

Natural/Undeveloped  Rural  Suburban  Urban

Scenic, Visual and Historic Resource(s) within the Area of Visual Effect

Officially designated State Scenic Highway

Eligible Scenic Highway  Visual resources

Federally (or otherwise) designated historic, scenic resource

#### Expected Agency Involvement

California Department of Fish and Wildlife; Regional Water Quality Control

Expected Public Feedback

Scenic resources identified as important  Not important

No public feedback

### Change to Visual Environment

#### Does the project's aesthetic approach appear to be consistent with applicable laws, ordinances, regulations, policies, or standards?

Although the State is not required to comply with regional and local planning ordinances and other regulations, these documents are critical in understanding the importance that communities place on visual resources. The Caltrans Environmental Planning branch may have copies of the planning documents that pertain to the project. If not, this information can be obtained by contacting the local planning department.

High Consistency (2 point) ▼

#### Will permits be required by outside regulatory agencies (i.e., federal, state, or local)?

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

Yes, either federal, or state, or federal and local, or state and local (3 point)

#### Will the project character be compatible with the visual character of the existing landscape?

Consider the types of adverse changes to the scenic integrity of the landscape caused by the project. Evaluate the scale and extent of the project features compared to the surrounding scale of the community. Is the project likely to give an urban appearance to an existing rural or suburban community?

Moderate Compatibility (2 point) ▼

**Will the project contrast adversely with the memorability (vividness), natural harmony and/or cultural order (unity) of the existing landscape?**

Evaluate the scale and extent of the project features compared to the scale of the visual elements within the surroundings. Is the project likely to change the appearance in a way that is contrasting with the line, color, form, and texture of the existing landscape visual character?

Moderate Adverse Contrast (3 points) ▼

**Will the project, when viewed together with other past or foreseeable projects, result in a cumulative adverse change in the visual quality or character of the existing landscape?**

Identify any projects in the area (both Caltrans' and others') that have been recently constructed and/or are reasonably foreseeable and/or currently planned for future construction. The window of time and the extent of area applicable to possible cumulative impacts should be based on a reasonable anticipation of the viewing public's awareness of cumulative change.

Project will not result in cumulative impacts (1 point)

**Will the project produce a new source of substantial light or glare, which will adversely affect daytime or nighttime views within the area?**

Identify new sources of lighting and glare and how day- and nighttime visual conditions may change.

Low potential for adverse effects (2 point) ▼

**What is the potential that the project proposal will be controversial within the community?**

Assess the level of public concern by talking with local agency management and staff familiar with the affected community's sentiments as evidenced by past projects and/or current information.

Low Potential that project will be controversial (2 points) ▼

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

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

Moderate Sensitivity (3 points) ▼

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

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

Moderate Level of Concern (3 points) ▼

**Are there federally, state, locally designated scenic or historic resources, or other visual resources within the project area of visual effect (i.e., viewshed)?**

For example: protected viewsheds, visually sensitive public use areas, national historic/scenic trails, historic sites or structures, scenic designated viewpoints, wild and scenic rivers, state scenic highways or federal scenic byways, or potential visual resources such as stands of trees, rock outcroppings, etc.

No identifiable scenic resources (1 point)

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

Consider the proposed project features, possible visual impacts, and probable environmental commitments.

Moderate Benefit (3 points) ▼

**Will the project likely require design changes to reduce the extent of visual resource impacts?**

Consider design changes and enhancements such as realignment, additional alignment alternatives, vertical profile adjustments, extensive landscaping, architectural treatment, color and texture treatments and/or lighting of aboveground structures.

Some redesign or minimization measures (3 points) ▼

**Assumptions/Issues**

Assumptions/Issues

Calculate Total

[It is recommended that you print a copy of these calculations for the project file.](#)

Project Score: 28

## Select An Outline Based Upon Project Score

The total score will indicate the recommended VIA level for the project. In addition to considering circumstances relating to any one of the 12 questions that would justify elevating the VIA level, also consider any other project factors that would influence level selection.

### Score 12-18 VIA Questionnaire

No visual resource related regulatory requirements. No or negligible visual changes to the environment are proposed. None or minimal public concern has been identified. This Questionnaire with rationale for selected responses to questions in the available spaces after each question along with a statement of no visual resource impact is appropriate and provides a sufficient rationale why a technical study is not required.

## Score 19-28 VIA Memorandum

Very limited visual resource related regulatory requirements. Minor visual changes to the environment are proposed. Minor public concern from the public may be expected. A VIA Memorandum is appropriate in this case. The VIA Memorandum should briefly describe project features, impacts and any environmental commitment measures. Visual simulations are not necessary. Go to the Directions for using and accessing VIA Memorandum Annotated Outline ([website link](#)).

## Score 29-38 Standard VIA Report

Several visual resource related regulatory requirements. Moderately noticeable visual changes to the environment are proposed. Moderate public concern may be expected. A fully developed Standard VIA Report is appropriate. The report should describe in detail the project's visual attributes, its visual impact and potential environmental commitment measures. Visual simulations are recommended. This report will likely receive public review. Go to the Directions for using and accessing the Standard VIA Annotated Outline ([website link](#)).

## Score 39-48 Advanced VIA Report

Extensive visual resource related regulatory requirements and clearly noticeable changes to the environment are proposed. Moderate to high public concern may be expected. A fully developed Advanced VIA Report is appropriate. The report should describe in detail and numerically score the project's visual change and sensitivity, its visual impact and any environmental commitments proposed. Visual simulations are required. It is appropriate to alert the Project Development Team to the potential for highly adverse impacts and to consider project alternatives to avoid those impacts. This technical study will receive close public review. Go to the Directions for using and accessing the Advanced VIA Annotated Outline ([website link coming soon](#)).

## Statewide Campaigns

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- ▶ [Adopt-A-Highway](#)
- ▶ [Amber Alert](#)
- ▶ [Be Work Zone Alert](#)
- ▶ [CAL FIRE](#)
- ▶ [Cal OES: Power Outage and Fire Recovery Resources](#)
- ▶ [California Climate Investments](#)
- ▶ [California Connected](#)
- ▶ [California Transportation Plan 2050](#)
- ▶ [Clean California](#)
- ▶ [Go Safely California](#)
- ▶ [HeatReadyCA.com](#)
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