State of California

The State Transportation Agency

Memorandum

To : **Scott Ostrau** Date: September, 2020
Environmental Planning

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Big Sur Bridge Rail Replacement Program and Garrapata Creek Bridge Rail Replacement Project

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Subject : **Scenic Resource Evaluation and Visual Assessment**

Regulatory Setting – Tier I and Tier II.

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

The Monterey County Land Use Plan – Local Coastal Plan provides for the preservation of the incomparable beauty of the Big Sur country. It specifies that all development must harmonize with and be subordinate to the wild and natural character of the land, and should remain within the small-scale, rural values of the area, rather than introduce new or conflicting uses. It is the County's objective to preserve the Big Sur Coast scenic resources in perpetuity and to promote the restoration of the natural beauty of visually degraded areas wherever possible. The County's Viewshed Policy essentially prohibits all new construction if visible from Highway 1, with the exception of road capacity, safety, and aesthetic improvements; provided these projects enhance the highway's aesthetic beauty and protect its primary function as a two-lane recreation route, include walking and bicycle trails wherever feasible, and maintain the highest possible standard of visual beauty and interest.

The Coast Highway Management Plan was undertaken to foster a corridor-wide understanding of the aesthetic values along the Big Sur coast and to provide guidance in managing scenic resources. The Coast Highway Management Plan is valuable in identifying the primary areas of local concern regarding the corridor's visual setting In developing the Coast Highway Management Plan, the Scenic & Habitat Working Group, made of local citizens and agency representatives summarized the following stakeholder interests:

- The essential character of Highway 1 is that of a functional highway that passes through a unique and spectacular landscape.

- The true historic character of the corridor is worthy of preservation. Leaving the corridor essentially as it is would better honor this character than converting it to a sanitized scenic highway experience or theme park.

- The highway is not homogeneous in character; it passes through a series of different environments, each with distinct characteristics and individual themes.

- Uniformity of roadside features should be avoided, as it would conflict with recognizing the varied and distinct characteristics along the corridor.

- The needs of one stakeholder group should not be disproportionate to others. Accommodating needs of visitors should not outweigh the desires and needs of the local community for whom the highway is a central feature of daily life, and visa versa.

- For decades, the local community has accepted and encouraged a measure of eclecticism and expressions of individuality and craft in features such as mailboxes, private signs, and small structures.

- Although diversity in roadside features is valued, increasing clutter is a serious concern. This is most evidenced in commentary regarding unnecessary, redundant, or poorly designed signs and visually intrusive overhead utilities.

The *Guidelines for Corridor Aesthetics* element of the Coast Highway Management Plan specifically addresses the construction of new bridges (and major new structures such as rocksheds) as follows:

- Any new bridges along this coast must complement the architecturally significant historic bridges in the corridor. These bridges are internationally recognized for their architectural style and engineering excellence and for the continuity established by the use of a common design theme: the concrete arch spandrel. The character of these bridges is a major contributor to the historic character of the highway corridor. The intent of these guidelines is to ensure that new bridges complement this character by balancing respect for historic design themes with the best of contemporary structural expression.

- Any new bridges should be authentic in design, rather than emulate something they are not, i.e., historic bridges. At the same time, structural designers should recognize historic bridges for the quality of aesthetic and engineering excellence they represent and strive to match or exceed this quality in contemporary terms.

- In the interests of overall continuity, designers should first consider bridge types that are in the same visual family as the historic bridges: arched or arch-like main span structures below deck level and made of concrete.

- In designing the alignment of a new bridge, designers should allow the roadway's geometry (plan and profile) to flow smoothly over the bridge, not necessarily limiting the alignment to a tangent (or straight) geometry.

- To maintain the visual continuity of the existing roadway, the width of new bridges should match the width of the approaching roadways, including shoulders, as closely as possible. As with roadway shoulder widths, the desired aesthetic for structures would support the concept for a 32-foot roadbed, subject to site-specific considerations and with consideration for appropriate exceptions from the 40-foot standard.

- New bridges must include an appropriate rail for safety of motorists, cyclists, and pedestrians; the rail type should be visually compatible with the open concrete balustrade rail seen on historic bridges.

The *Roadway Protection Systems* section of the Guidelines for Corridor Aesthetics states that, "Preference for type and material selection on protective systems (e.g., rockfall protection) would be given to those that are visually subordinate to the landscape, to the extent possible. Field installation details and the industrial design of system components would also emphasize visual compatibility. For larger protective structures such as rock sheds, recommendations on aesthetic design for bridges should feature aesthetic and engineering design excellence."

Affected Environment – Tier I and Tier II

State Route 1 throughout much of the Big Sur region is a two-lane conventional highway with 12 ft. lanes. Shoulder widths vary from 0 to 8 feet with the majority of them 4 feet or less. The existing highway is predominantly asphalt lanes and shoulders and is a two lane conventional highway until reaching Carmel.

Route 1 in Monterey County serves local and interregional traffic which primarily includes recreational, local commuters, and limited commercial users. State Route 1 in Monterey County is designated as an Official State Scenic Highway, a National Scenic Byway, and an All-American Road.

Highway 1 passes through several landscape types through Big Sur. The landform of the region is generally characterized by steep slopes and ravines forming a series of ridgelines and valleys as the mountains rise from the Pacific Ocean. The topography of the region is generally steeper in the southern section and allows more opportunity for long-range vistas toward the west. The topography supports a mostly curvilinear roadway which produces views for the highway traveler ranging from close-in views of the inland slopes to mid-range coastline views and wide open panoramas.

Surface water is an important visual element throughout the region. The Pacific Ocean is visible throughout much of the route and can be seen from many of the project locations. Numerous seasonal streams exist throughout the area although many are blocked from view and not noticeable from a moving vehicle.

Throughout the region, vegetation is a primary component of visual character. Route 1 passes through a variety of plant communities and vegetative types within the project limits. In general, creeks and drainages hold stands of sycamore, redwood, cottonwood and willows. Oak and other native trees are found mostly at the upper elevations along with coastal chaparral. Although native plant communities are the most visually prevalent, exotic plants such as Pampas Grass have established themselves along the highway corridor. Landscape planting is generally associated with the scattered residential and commercial development along the highway and is most visible along the northern end of the project limits, the Big Sur village area, and Carmel.

Along the highway the primary developments are the roadway itself and related features, occasional roadside home sites and tourist-oriented businesses. Along the southern end of the Big Sur, built-developments have a low to moderate visual presence in the landscape. In general, the scale and frequency of structures and other built amenities throughout this area is such that although visible, they don't dominate the views when seen in the context of the overall landscape. The northern section of Big Sur is the most developed. Residential uses are the primary development, although some tourist-oriented businesses are part of the view. Overhead utilities and roadside signage are visible elements along the route. Due to the topography throughout much of the region, cut slopes are associated with the highway facility and can be seen often from the road.

Route 1 has long been recognized for its scenic qualities, and the state and national scenic designations illustrate the heightened degree of sensitivity concerning the aesthetic character of this highway. Monterey County planning policies emphasize the protection of visual resources along Highway 1 and underscore the concern and sensitivity regarding aesthetic issues along this route. The project locations are all within the Coastal Zone, which places an emphasis on visual quality preservation. In addition, the *Coast Highway Management Plan* (Caltrans 2003) a comprehensive planning document being developed with extensive community input includes a section on identifying and preserving the scenic qualities of the route. The local community has a history of active participation in projects involving potential changes to the visual environment.

The visual experience of traveling the Big Sur coast is influenced by a variety of historic features. Seven historic bridges, built in the 1930's and important examples of the engineering technology and aesthetic preference of the era, are found along a 41-mile stretch of the coast highway. These bridges share a common design; each is an open-spandrel concrete arch structure with open bridge rail. Other historic elements seen by the highway traveler include parapet walls, culvert headwalls, and drinking fountains.

In addition to the historic structures, many other built elements contribute to the visual character of the highway experience. Bridge rails are noticeable components of both historic and non-historic structures. The railings of the coastal bridges are important in their ability to define the architectural style of structures, as well as their potential effect on ocean views. Open style railing is associated with older structures and design, while the railing constructed since the 1970’s is typically solid.

There is no single design style evident in the highway features (such as bridges, rails, barriers, walls, drainage inlets and downdrains, signage, and other elements) along the Big Sur corridor. Rather, the style and variety of features appears to be a factor of current engineering standards and funding availability rather than a uniform aesthetic theme. There is a tendency towards natural material construction and finishes such as wood and stone. Metal finishes, where used, are often weathered in appearance.

The existing visual quality of Route 1 in each of the project locations is high, due primarily to the historic bridges, the presence of natural vegetation, topographic relief, ocean views, and the minimal visibility of off-highway built elements.

The primary affected viewers are those who travel the highway and are in the immediate vicinity of the project locations. Viewers through this area generally have high expectations regarding scenic quality and the state and federal scenic designations further heighten viewers' sensitivity along this route.

Environmental Consequences – Tier I and Tier II

Both the Big Sur Bridge Rail Replacement Program (Tier I) and the Garappata Bridge Rail Replacement (Tier II) projects would result in a loss of scenic vistas, a substantial reduction of visual quality and character, and loss of visual access to coastal scenic resources.

Scenic vistas are defined as panoramic views which have high quality compositional and picturesque value. Scenic vistas throughout the project area include expansive mid-to-distant views of the Pacific Ocean, the rocky shoreline, dramatic topography and hillsides, native vegetative patterns, and undeveloped landscapes. The historic bridges are also primary contributors to the scenic vistas throughout the area.

The most noticeable aspect of the projects would be new bridge rails. Although the specific design of each of the bridge rails has not been determined at this time, current safety standards would require that the new railing would be substantially taller than the exisitng historic rails. The new bridge rail would also have smaller openings and less of a “see-through” appearrance. New pedestrian and bicycle railing would lilely be required, further increasing the height, visual clutter, and view-blocking effects of the project. Other potential visual changes associated with the projects may include an increase in paved surfaces, grading and earthwork, new taller and longer guardrail and concrete anchor blocks adjacent to the bridges, change from wooden posts to metal posts, and vegetation removal.

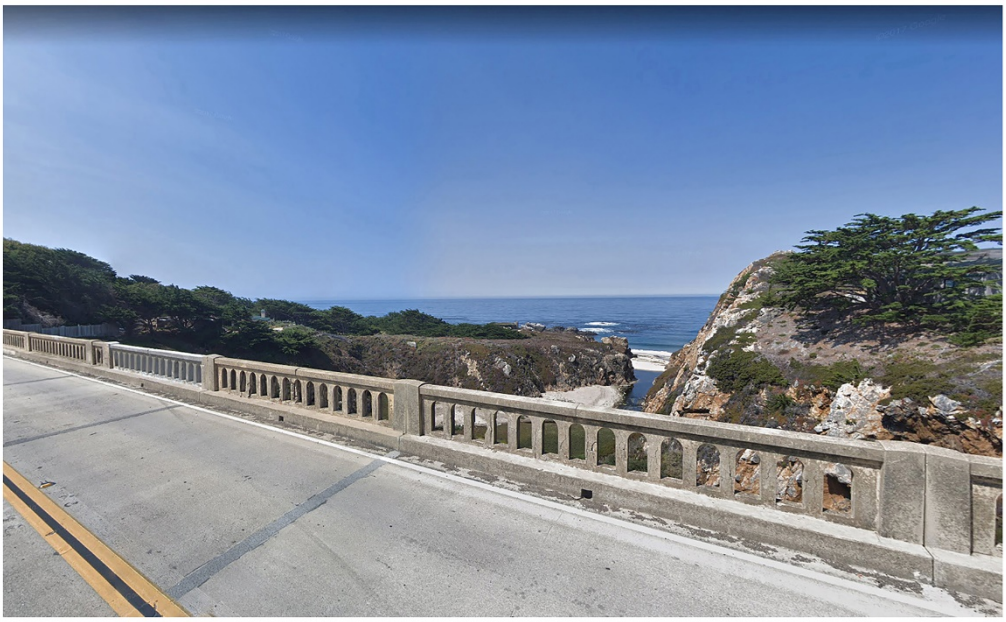
Many of these proposed elements would block or reduce visual access to coastal scenic vistas and scenic resources as seen from Highway 1, an Officially Designated State Scenic Highway and National Scenic byway.

The existing visual quality and character of the Big Sur Coast is based to a large degree on its rugged topography and coastline, sweeping ocean views, historic sctructure, undeveloped setting, and native vegetation patterns. The highway itself reinforces the

overall rugged and rural character because of its curvilinear alignment and generally narrow appearance.

Local, state and federal planning documents base the high visual quality of this route primarily on the striking views of the ocean, the dramatic topography, the native vegetative patterns, and the relatively natural character of the roadside environment. Within the project limits, each of the bridges are historic and iconic scenic features of the California coast.

The project would change the visual character at each of the locations Loss of these important architectural elements would fundamentally alter the visual experience of travelling the Big Sur Coast along Highway 1. In addition,the overall effect of these changes would be a more engineered-looking, slightly larger scale, more contemporary highway facility.



GARRAPATA BRIDGE EXISTING BARRIER

12/6/19

Prepared by: DES, Bridge Architecture and Aesthetics

Avoidance, Minimization, and/or Mitigation Measures (Tier I and Tier II)

Based on visual analysis and review of coastal planning policies, it is found that the existing high visual quality of the area is mostly due to the following:

- Visual access to historic structures and roadside elements.
- Exaggerated topographic relief.
- The dramatic vistas of the Pacific Ocean.
- The minimal visual encroachment of constructed elements
- The harmonious visual pattern of the diverse native vegetation on the hills and ground plane.
- The combination of alternating distant vistas and narrowing view caused by undulating landform.

In order to maintain these visual quality elements and decrease potential negative visual impacts caused by the project, the following actions are recommended:

A. Involve the community in the design of all aesthetic project features.

B. Use an open-style bridge rail that minimizes view blockage

C. Utilize the smallest-size end blocks possible that meet safety needs.

D. Use finish colors and textures that minimize reflectivity and glare.

E. Re-contour all disturbed areas and construction access roads to a natural appearance.

F. Vegetate all stabilized soil areas with native shrubs and grasses as appropriate.

G. Bury all overside drains and inlet structures or hide them from view to the greatest extent possible. Where unavoidably exposed to view, color the pipes to reduce noticeability, and dull the gloss of the finish.

H. Where metal beam guardrail or metal end treatments are required, utilize measures to reduce reflectivity of the metal components.

I. If pedestrian and/or bicycle railing is required, design it with materials, form, and colors to minimize noticeability and ocean view blockage, and to complement the bridge and bridgerail.