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GOLDEN GATE BRIDGE
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VISUAL IMPACT ASSESSMENT

Golden Gate Bridge Moveable Median Barrier Project
City and County of San Francisco and County of Marin, California

Project 2008-B-5
04-SF-101 to 04-MRN-101
Federal Project #: STPL-6003(037)
EFIS# 0400020507

ORIGINAL

Prepared For:



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The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S.C. 327.

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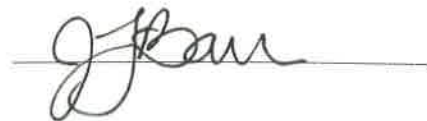


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I. PURPOSE OF VISUAL IMPACT ASSESSMENT

The purpose of this Visual Impact Assessment (VIA) is to assess the visual impacts of the proposed project and to propose measures to mitigate any adverse visual impacts associated with the construction of the proposed Golden Gate Bridge Moveable Median Barrier (GGBMMB) Project on the surrounding visual environment.

II. PROJECT DESCRIPTION

The purpose of the project would be to enhance traffic safety along the Golden Gate Bridge (Bridge) by providing a physical barrier to separate opposing directions of traffic. Currently, northbound (NB) and southbound (SB) traffic along the Bridge is separated by 19-inch tall, 4-inch diameter yellow hollow plastic tubes placed 50 feet and 25 feet apart on tangent and curve sections respectively. These tubes serve to delineate opposing directions of traffic, but provide no physical protection against crossover collisions, and are sources of visual clutter on the Bridge. Installation of a concrete Movable Median Barrier (MMB) would virtually eliminate crossover "head-on" accidents on this highway facility. The MMB would include Variable Length Barrier (VLB) sections, installed approximately every 50 linear feet. The VLBs, when inserted into the barrier line, would allow for expansion and contraction across the Bridge expansion joints.

Project Limits

The proposed Moveable Median Barrier project would extend across the 1.7 mile long Bridge above San Francisco Bay, between the City and County of San Francisco and Marin County. The Bridge is a six lane undivided highway with four 10-foot and two 11-foot wide lanes, and a 10-foot sidewalk on both sides. Portions of U.S. Highway 101 (U.S. 101) north of the Bridge have permanent median barriers that would be removed. In the near term (prior to the completion of the Doyle Drive project), the project would extend from north of the Bridge, south of Waldo tunnel to just north of the existing toll booths. Once the Doyle Drive project is completed, the project would be extended to just north of the Doyle Drive/19th Street gore areas. At completion, the total length of the project would be approximately 3.1 miles. The location of the project site is shown in **Figure 1**, while short term and long term project design plans are shown in **Figure 2** and **Figure 3** respectively.

Proposed Facilities

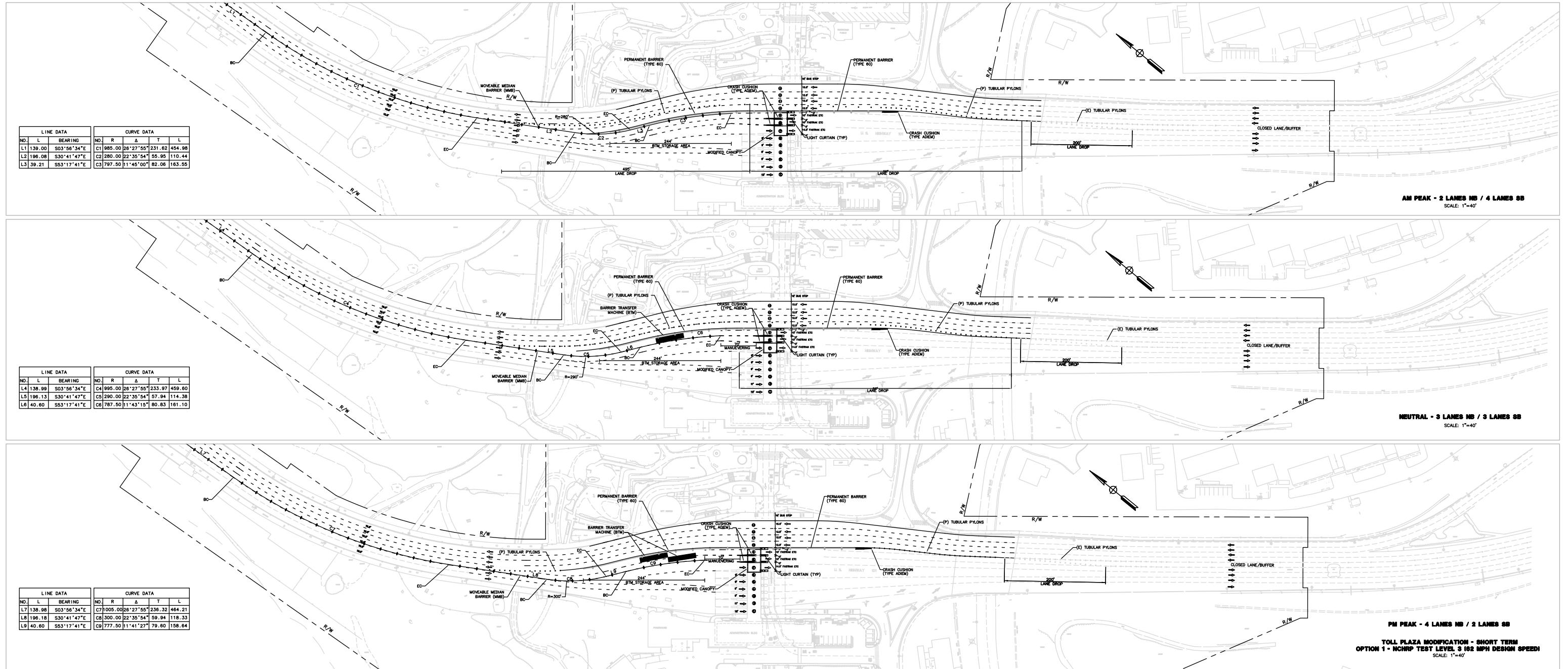
The District proposes installing a Steel Reactive Tension System Quickchange Moveable Barrier, designed and manufactured by Barrier Systems Inc. of Rio Vista, California. The barrier consists of a series of inter-linked high strength steel structures filled with concrete, each unit of which measures 39 inches by 12 inches by 32 inches. The units would have a 24-inch-wide steel base with four rubber feet and rest on the surface of the roadway. To allow for curvature in the system, as well as provide expansion potential on the Bridge, the MMB would be installed with Variable Length Barriers (VLBs) at predetermined locations. The materials and dimensions of the VLB units are similar to the steelclad MMB units, except that the lengths may vary from



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GOLDEN GATE BRIDGE MOVEABLE MEDIAN BARRIER PROJECT: VISUAL IMPACT ASSESSMENT

Figure 1
PROJECT LOCATION MAP





39½-inch (minimum) to 53½-inches (maximum). The VLBs would be made of a metallic material, but would be pre-treated to closely match the finish and color of the gray concrete MMB joints.

At completion of the Project, the MMB would extend 3.1 miles and would be used in three lane configurations:

- 2N/4S Configuration – Two northbound lanes / four southbound lanes
- 3N/3S Configuration – Three northbound lanes / three southbound lanes
- 4N/2S Configuration – Four northbound lanes / two southbound lanes

The use of a Barrier Transfer Machine (BTM) is proposed as part of the project. The BTM, which would be approximately 9.5 feet wide and 51 feet long, has sometimes been referred to as a “zipper truck” because the barrier is moved by one lane as the truck travels along the roadway. Once the barrier is installed, the BTM would remain on the Bridge (except during occasional maintenance) and within the roadway right-of-way. Two BTMs would be required as part of the project, as each machine moves the median barrier laterally by one lane. The BTMs would be painted a gray color to blend in with the roadway and minimize visual contrast.

Equipment Storage

The BTM would be stored within the Bridge and roadway right-of-way. The BTM would have two storage locations within the highway median. The number of BTMs in one of these locations would vary throughout each day as different lane configurations were deployed. In the 4NB/2SB lanes configuration, both BTMs would be stored immediately north of the Bridge toll plaza while during the 2NB/4SB lanes configuration, both BTMs would be stored in the highway median south of the Waldo Tunnel. In the 3NB/3SB lanes configuration one BTM would be stored at each of the storage areas. Once Doyle Drive construction is completed, the storage at the plaza area would be relocated to approximately 1,600 feet south of the toll plaza in the Presidio Parkway median.

Demolition and Reconstruction

The project would require the demolition of four toll booths. One toll booth on the eastern side of the Bridge would be permanently removed and three other toll booths would be reconstructed with a narrower total width for Electronic Toll Collection only. All three new toll booths would be about 3 feet taller than the existing toll booth canopy to provide vertical clearance for larger vehicles. North of the Bridge, a portion of the existing permanent median barrier and a median strip on U.S. 101 would also be demolished and paved over.

Staging Areas

Construction staging areas have been proposed at four locations within the Golden Gate National Recreation Area (GGNRA), and would be used during project construction activities. These proposed staging areas are located on the northern side of the Bridge in Marin County below the Marin Approach and Span 4 backspan. One is an existing gravel area located in a switchback of Conzelman Road and the other three are open gravel-surfaced areas located under the northern span of the Bridge, which are currently being used for similar staging and maintenance activities, and other Bridge operations. One proposed construction staging area to the south of the Bridge is located adjacent to the Bridge toll plaza within the Presidio. This proposed staging area is an existing paved employee parking lot with 25 public spaces, located just west of the toll plaza off Merchant Road. Project related construction equipment and materials would be stored within one or more of these construction staging areas. No expansion of the construction staging areas beyond their existing footprint will be permitted.

Parking Facilities

The four proposed staging areas would be used to accommodate the parking needs of construction equipment and supplies for the project. The Merchant Road staging area is currently used to accommodate District employee and public parking needs (25 stalls are available to the public). Temporary use of the Merchant Road parking area would displace some employee and public vehicles. There are several other areas near the Bridge that offer public parking, including the District's east parking lot below the Roundhouse Gift center and the National Park Service parking lot off Lincoln Boulevard and Battery East Road. On weekends and after 3:30 p.m. during the week, the District's west parking lot adjacent to the Toll Plaza is also available for public use.

Access (Vehicle, Pedestrian, Cyclists)

The proposed staging area on the south end of the Bridge (Merchant Road employee parking lot) is located in proximity to Lincoln Boulevard. Access to the Merchant Road staging area would be provided via Merchant Road, a two-lane roadway that extends between Lincoln Boulevard and U.S. 101 near the toll plaza. Access to the staging areas north of the Bridge, including those under the Bridge's northern approach, would be made via the U.S. 101 Alexander Avenue exit and west to Conzelman Road via the Sausalito lateral. In the project area, Conzelman Road is a narrow roadway that extends underneath the Northern Viaduct.

Roadways in the project area are characterized by small radii curves, steep grades and narrow shoulders. There is no continuous system of sidewalks, bike trails or bike lanes on these roads. During the movement of construction equipment and materials, the existing pattern of circulation on narrow roads would be temporarily detoured to minimize safety hazards for cars, buses, bikers, and pedestrians. Since the construction materials associated with the project would be small (materials for toll booth reconstruction and median barrier) this is likely to have

only a small effect on local roads. Demolition of the existing barriers would require hauling and disposal of the concrete spoils.

Pedestrian and bicycle access to the Bridge would be maintained during construction of the project and is not likely to be substantially affected. Most construction activities would occur on weekdays during periods when the sidewalks would be closed to the public (7:00 am to 3:30 pm on the west sidewalk, and dusk to 5:30 am on both sidewalks). Cyclists would be provided limited access to the east sidewalk between dusk and 5:30 am. A minimum six-foot wide passageway on the east sidewalk would remain open to the public during construction at that location.

Roadway Work

The proposed project would involve minor roadway work that includes removal of the permanent barrier, paving of the median area (north end), installation of a permanent barrier (Type 60) at the plaza area and restriping. Restriping would be necessary for compatibility with the MMB, proposed roadway changes and reconfigured toll booths. There would be new chevron markers to indicate a collector-distributor road adjacent to the auxiliary lane at the north end. Restriping would occur on the Vista Point on-ramp and within the highway right-of-way from the Bridge approaches just south of the toll plaza area to south of Waldo Tunnel.

III. ASSESSMENT METHOD

The process used in this visual impact study generally follows the guidelines outlined in the publication *Visual Impact Assessment for Highway Projects*, Federal Highway Administration (FHWA), March 1981.

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

- A. Define the project setting and viewshed.
- B. Identify Key Observation Points (KOPs) for visual assessment.
- C. Analyze existing visual resources and viewer response.
- D. Depict the visual appearance of project alternatives.
- E. Assess the visual impacts of project alternatives.
- F. Propose methods to mitigate adverse visual impacts.

IV. VISUAL ENVIRONMENT OF THE PROJECT

A. Project Setting

Regional Landscape and Scenic Resources

The Bridge is a multi-component historic structure that has been determined eligible for listing in the National Register of Historic Places (NRHP). The Bridge was initially determined significant at the national level under NRHP Criterion A, B, and C with a period of significance of

1933-1938. The Bridge has also been nominated for National Historic Landmark (NHL) status by the National Park Service in 1997, but it has yet to be formally designated as such. The NHL nomination provides the documentation and analysis to support eligibility of the Bridge under NRHP Criterion C, as an important example of suspension bridge technology, Art Deco design, and the work of more than one master engineer and architect. The Bridge is also listed in the California Register of Historical Resources under Criterion 3, with a period of 1933-1938, because it was designated California State Landmark No. 974 in 1987. The Bridge is also San Francisco City Landmark No. 222. Furthermore, the Bridge and its approaches have been documented by the Historic American Engineering Record (HAER #CA-31) and the Bridge has been the subject of many awards and recognitions.

The Bridge is located within the San Francisco Bay Area between the northernmost tip of the San Francisco Peninsula and the Marin Headlands at the southernmost end of Marin County. The Bridge spans the Golden Gate, a narrow strait that serves as the mouth of San Francisco Bay to the Pacific Ocean. This area of northern California is recognized as one of the most scenic areas in the world, where the blue green waters of the Bay and Pacific Ocean combine with islands, bridges, mountains, and urban skylines to create both picturesque and memorable vistas.

The visual character of the San Francisco Bay region is defined by the dramatic interface of urban and suburban development undulating across widely varied topography, and vast expanses of open space, and water. Examples of this aesthetic are experienced from points along the eight bridges that cross the Bay. These include the Golden Gate Bridge, the San Francisco-Oakland Bay Bridge, and the Richmond-San Rafael Bridge. Dense urban areas such as San Francisco and Oakland are balanced by natural and open space areas including the headlands (Marin Headlands) of the Golden Gate National Recreation Area (GGNRA), and East Bay hills. The waters of San Francisco Bay and the Pacific Ocean are almost always active, as they contain major shipping routes for the transportation of goods in and out of the Ports of Oakland and San Francisco.

The Bay waters are also activated by a year-round fishing industry and recreational boating, sailing, and windsurfing. From almost any vantage point at any time, each of these elements play a part in the regional aesthetic and character of the Bay Area.

Context of the Golden Gate Bridge within the Regional and Local Landscape

The Bridge is a suspension bridge that extends over the mouth of San Francisco Bay and links the City and County of San Francisco to Marin County. The Bridge is located in the GGNRA and is an iconic symbol of San Francisco and Northern California, attracting visitors from around the world. From points north and south of the Bridge, such as the Marin Headlands and Baker Beach, respectively, the Bridge is a prominent visual feature extending across the water of San Francisco Bay. The International Orange colored Bridge and towers stand out against the blue skies and waters of the Bay and Pacific Ocean. When viewed from a distance, the Bridge forms

a continuous linear feature across the Bay and visually connects the undeveloped hills of the Marin Headlands to the Presidio within San Francisco.

The Bridge is surrounded by features occurring naturally in the landscape and features that have been introduced by man into the landscape. The Bridge sits directly between the northernmost tip of San Francisco, which includes the densely vegetated Presidio and the undeveloped hills of the Marin Headlands in southern Marin County. Manmade features, such as Fort Point and Fort Baker, both historical military structures, are also located on the south and north sides of the Bridge, respectively. The densely urbanized skyline of San Francisco is located southeast of the Bridge.

The Bridge is a primary transportation corridor within the area, located between U.S. 101 in San Francisco County and Marin County. It is a heavily traveled major thoroughfare, carrying high volumes of traffic during the weekdays (commuters) and weekends. Sidewalks line the east and west sides of the Bridge, accommodating large numbers of pedestrians and bicyclists across the entire Bridge.

Context of the Golden Gate Bridge for Motorists and Pedestrians

Motorists, bicyclists and pedestrians traveling on the Bridge are exposed to a wide variety of visual experiences. When looking to the east, the viewer is afforded views of the San Francisco Bay Area, including the Bay waters, the densely urbanized cityscape of San Francisco, Alcatraz, Angel Island, the East Bay hills, and the San Francisco-Oakland Bay Bridge. This view encompasses a mixture of natural and man-made landscape features. When looking west, the viewer experiences a predominantly natural landscape consisting of the undeveloped, rocky slopes of the Marin Headlands and the open water of the Pacific Ocean.

When traveling north on the Bridge, it is evident that the viewer is leaving the urban environment of San Francisco and entering the more natural setting of the Marin Headlands. However, this transition is gradual as the Bridge provides a visual progression from urban and industrial (such as the area around the Toll Plaza) to views of San Francisco Bay, the Pacific Ocean, and the undeveloped Marin Headlands.

When traveling south on the Bridge from Marin County, the visual character transitions from more natural and rural characteristics to an urban character, as views of San Francisco become more prominent for motorists traveling south. Views include the City of San Francisco, San Francisco Bay, the Presidio, Crissy Field, and Alcatraz Island.

A four-foot-high outside handrail, comprised of evenly spaced vertical members, and public safety railing comprised of narrow horizontal cables, limit views from passengers in low-profile automobiles. From these vehicles, views are typically of more distant features such as Alcatraz, the distant San Francisco skyline and the San Francisco-Oakland Bay Bridge.

Daily lane configuration operations on the Bridge intermittently affect the visual experience of Bridge pedestrians and motorists. Under current operating conditions, the Golden Gate Bridge District controls the number of lanes dedicated to northbound and southbound traffic through

the use of moveable yellow cylindrical pylons as dividers of oncoming directions of traffic. Use of the pylons for this purpose increases the number of lanes in a particular direction during periods of heavy traffic. For example, during weekday morning commute hours, when traffic is most heavy in the southbound direction, the pylons are placed so that four lanes are available to southbound motorists and two lanes are available to northbound motorists. This lane configuration is reversed during the afternoon commute period, when four lanes become available to northbound vehicles, and two lanes are available to southbound vehicles, given that the heaviest traffic is leaving San Francisco at that time.

The numerous yellow pylons that form a line along the entire length of the Bridge are not visually imposing, but they do slightly clutter views of the clean solid lines and massing of the Bridge structure, which in turn are dramatically back-dropped by the surrounding natural landscape and the San Francisco city skyline. Movement of the pylons from one configuration to another is accomplished through the use of a pickup truck from which Bridge workers manually remove and replace pylons. The pickup truck does not detrimentally affect views on the Bridge, given that it is similar to the many such vehicles that travel across the Bridge daily.

B. Project Viewshed

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

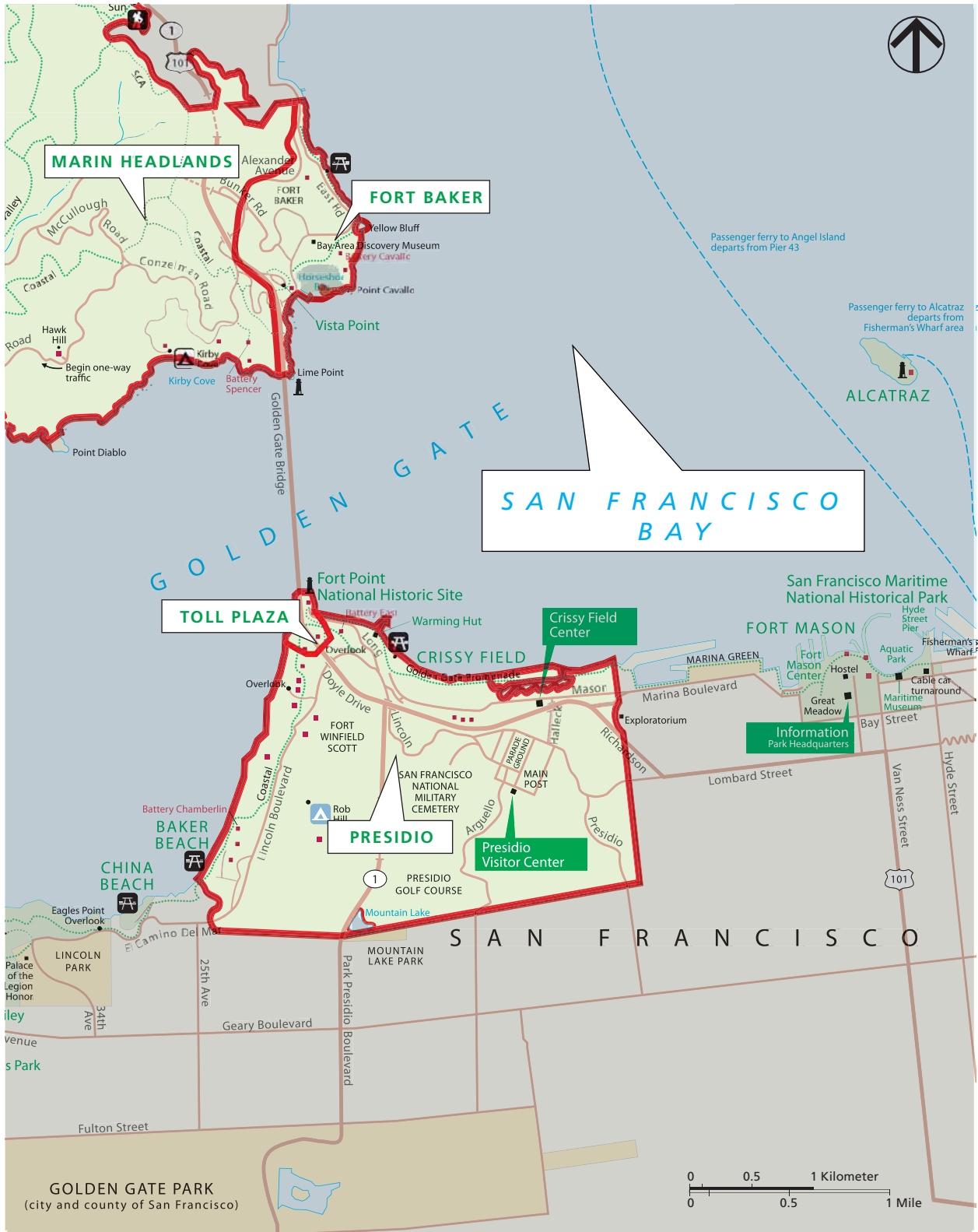
Due to the location of the Bridge within the Bay Area, the project's conceptual viewshed is vast. The Bridge is visible from many Bay Area locations at sea level, and from locations at higher elevations. Similarly, the Bridge offers vast and often unobstructed view opportunities of large parts of the Bay Area. For practical purposes, this VIA focuses on three primary viewing distance viewshed zones; foreground, middleground and background. These distance zones are subsets of the larger conceptual project viewshed.

C. Landscape Units

A landscape unit is a portion of the regional landscape and can be thought of as an outdoor room that exhibits a distinct visual character. A landscape unit will often correspond to a place or district that is commonly known among local viewers. The following five landscape units have been identified for the project site and its vicinity. **Figure 4** illustrates the location and boundaries of the landscape units.

The Presidio

The Presidio is located directly south of the Bridge Toll Plaza. Formerly a military base, the Presidio provides its own unique scenic character. The Presidio is situated along a densely vegetated coastal bluff. This landscape unit is vegetated with eucalyptus, cypress, Monterey pine trees, and shrubs. It provides an aesthetic of a relatively natural area or park-like setting, with roadways, such as Doyle Drive, traversing through the area. Crissy Field, located on the



Source: National Park Service, 2008

GOLDEN GATE BRIDGE MOVEABLE MEDIAN BARRIER PROJECT: VISUAL IMPACT ASSESSMENT

Figure 4
LANDSCAPE UNIT LOCATIONS

eastern side of the Presidio, adds to the park-like setting with open, grass field bordered by the San Francisco Bay shoreline to the north. Baker Beach, to the west of the Presidio along the coast of the Pacific Ocean, exemplifies the natural aesthetic character of this landscape unit as well.

Residences and historic structures are located within this landscape unit. Structures within the Presidio vary in architectural structure, size, and use, but seem to share a common style and most noticeably, a consistent color and material scheme. Many of the Presidio buildings are included in the National Register of Historic Places database. Fort Point, a brick structure formerly used by the U.S. military, is located beneath the Bridge at the northern tip of the Presidio and represents a historical visual image type.

Toll Plaza Area

The Bridge Toll Plaza is located at the southern end of the Bridge on a high bluff looking over the Pacific Ocean and San Francisco Bay. The area is heavily used by tourists as a vantage point to view the Bridge and San Francisco and greater Bay Area. Tourists also stop at the parking lots in this landscape unit to access the pedestrian sidewalk along the east side of the Bridge. The toll plaza is regularly occupied by vehicles as they pay tolls in the southbound direction, and pass through in the northbound direction. The overall aesthetic of this landscape unit is of a busy institutional and historic place. It represents a primary entry point onto the Bridge for motorists traveling north on U.S. 101.

San Francisco Bay

San Francisco Bay consists of a large body of water situated between the San Francisco Peninsula, the East Bay hills, and the northern shore of the greater Bay Area region. San Francisco Bay represents a coastal area where waters meet the natural coastline at the base of the Marin Headlands and the urbanized shoreline around the City and County of San Francisco. The waters of the Bay are typically active, as the Bay serves as a major commercial and industrial shipping route. The Bay also serves a recreational purpose, as seen with year-round fishing, boating, and windsurfing. The overall aesthetic of this landscape unit is of expanses of blue green waters surrounded by urban and industrial uses and natural landscapes uses.

The Bridge is suspended above the mouth of San Francisco Bay connecting San Francisco and Marin counties. It is one of the most frequently visited and internationally well known suspension bridges in the world, and is widely considered one of the most beautiful examples of bridge engineering, both structurally and aesthetically. It was the largest suspension bridge in the world when it was completed in 1937 and has become an internationally recognized symbol of San Francisco design reflected by its unique and distinguishing architectural qualities and characteristics that combined Art Deco and Streamline Moderne design with advanced engineering technologies. The Bridge is constructed of concrete and steel; the foundations, anchorage housings and pylons are concrete, the Bridge spans are steel.

The Bridge has been described as an environmental sculpture and is widely noted for its harmonious blending of the natural and built environment. The extraordinary visual setting intensifies the visual power of the Bridge. From its north-south alignment, the Bridge provides panoramic views of the rugged natural beauty and urban density that surround it. It is one of the most photographed places in the world, with views of the Bridge typically taken from GGNRA beaches and trails southwest of the Bridge, San Francisco Bay, the Presidio, Fort Point, Fort Baker, the Marin Headlands, and from the air. The setting and the views contribute to the popularity of the sidewalks and to people's affection toward the structure.

Marin Headlands

The Marin Headlands is an undeveloped, mountainous area located at the southernmost tip of Marin County. The northern approach of the Bridge travels horizontally across the eastern edge of the hills. The Marin Headlands consist of high bluffs overlooking the Pacific Ocean, the Bridge, and San Francisco Bay. This landscape unit typically includes open space, historic batteries and recreational trails. The area is used by pedestrians, recreational users, and tourists as a vantage point to the panoramic vistas of the northern San Francisco Bay Area and the Bridge. The recreational trails and narrow winding roads allow multi-modal public access to the landscape unit. The overall aesthetic character of this landscape unit is of generally undisturbed open space with few manmade features and steep, rocky hills sloping down to San Francisco Bay and the Pacific Ocean.

Fort Baker

Fort Baker is located to the northeast of the Bridge at the base of the Marin Headlands. The area is located on Golden Gate National Recreational Area (GGNRA) land and is classified as a historic district on the National Register of Historic Places. Fort Baker consists of historic army buildings clustered around the main parade ground, the Discovery Museum, Conference Center, the Horseshoe Cove waterfront area, and several historic batteries. This landscape unit typically includes historic/landmark, such as the low-density, red-roofed, white, rectangular army-built buildings; institutional/military, including an active United States Coast Guard station; educational and recreational uses. The overall aesthetic character of this landscape unit is of low-density development surrounded by natural landscape features, such as vegetation, the water of San Francisco Bay, and the Marin Headlands.

V. EXISTING VISUAL RESOURCES AND VIEWER RESPONSE

A. FHWA Method of Visual Resource Analysis

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

Assess Visual Quality – Visual quality is evaluated by identifying the vividness, intactness and unity present in the viewshed. The FHWA states that this method should correlate with public judgments of visual quality well enough to predict those judgments. This approach is particularly useful in highway planning because it does not presume that a highway project is necessarily an eyesore. 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 three criteria for evaluating visual quality can be defined as follows:

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

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

Unity is the visual coherence and compositional harmony of the landscape considered as a whole. It frequently attests to the careful design of individual manmade components in the landscape.

The Bridge spans the opening between the Pacific Ocean and San Francisco Bay. At the south end, it begins at the Presidio, which is part of the GGNRA, an area of relatively undisturbed natural landscape along the Pacific Ocean, running from Daly City to Mt. Tamalpais State Park in Marin County. At the north end, it starts in the Marin Headlands, also part of the GGNRA. Although the Bridge connects the heavily urbanized area of San Francisco with the dense residential areas of Marin County, its direct surroundings are predominantly uninhabited.

Because the Bridge is visible from a very large area, for the purposes of this study a series of public Key Observation Points (KOPs) were selected that represent popular viewing areas or areas where the proposed changes would be most noticeable. A total of fourteen (14) KOPs were selected by the District in consultation with the Department to represent various photographed public views towards the Bridge and from the Bridge. The existing visual quality at each of these KOPs has been evaluated using the criteria identified above and rated as outstanding, high, moderate, or low, based on the following considerations:

Outstanding visual quality is a rating reserved for landscapes with exceptionally high scenic value. These landscapes are significant regionally and/or nationally. They usually contain exceptional natural or cultural features that contribute to this rating. They are what we think of as “picture postcard” landscapes. People are attracted to these landscapes just to be able to view them.

High visual quality encompasses landscapes that have a high-quality scenic value. This may be due to cultural or natural features contained in the landscape or to the arrangement of spaces contained in the landscape that causes the landscape to be visually interesting or a particularly comfortable place for people. These are often

landscapes that have a high potential for recreational activities or in which the visual experience is important.

Moderate visual quality represents landscapes that have average scenic value. They usually lack significant manmade or natural features. Their scenic value is primarily a result of the arrangement of spaces contained in the landscape and the two-dimensional visual attributes of the landscape.

Low visual quality refers to landscapes with low scenic value. The landscape is often dominated by visually discordant manmade alterations, or they are landscapes that do not include places that people find inviting and lack interest in terms of two-dimensional visual attributes.

B. Methods of Predicting Viewer Response

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

Viewer Sensitivity

Viewer sensitivity is defined both as the viewer's concern for scenic quality and the viewer's response to change in the visual resources that make up the view. Evaluation of viewer sensitivity incorporates the visual preferences of viewers, viewer activities, viewer awareness of visual character and issues, local values and goals, and the cultural significance of the visual resource. Activities such as commuting in heavy traffic can distract an observer from many aspects of the visual environment. On the other hand, activities such as driving for pleasure or relaxing in scenic surroundings can encourage an observer to look at the view more closely and at greater length. The complexities in documenting viewer sensitivity are partially addressed through a physical inventory of viewer types and landscape characteristics affecting viewer exposure, as well as through interpretations of viewer sensitivity information obtained from ongoing public input and the project web site.

Viewer Exposure

Viewer exposure refers to the visibility of the project from surrounding viewpoints as well as the viewing sequence from the Bridge user's viewpoint. Use patterns that determine viewpoints can be categorized by location, viewer volume, and duration of views, as well as by viewer type. Viewer exposure relates to duration and frequency of views, and whether the viewer is located at a given site or is moving. The direction and speed of travel can profoundly influence the exposure to views. View position refers to the observer's height in relation to what is being viewed. This relationship is important in determining scenic quality and potential visual impact.

C. Existing Viewer Groups, Viewer Exposure, and Viewer Sensitivity

Existing Viewer Groups

Motorists Traveling on Bridge. Tens of thousands of vehicles travel across the Bridge on any given day. Some vehicles carry motorists who cross the Bridge on their way to or from work or other endeavors, while for others the Bridge is a destination in itself, due to its status as a tourist attraction for people from all over the world.

It can be surmised that commuting motorists who travel regularly across the Bridge would be less sensitive to the proposed project, especially over the long term. It is anticipated that while any change would be immediately noticeable, modifications to the existing roadway would become familiar visual features. It could also be surmised that tourists traveling the Bridge by vehicle, for whom the Bridge is a destination, would be most sensitive to visual changes associated with the project, because of their aesthetic expectations of this well-known landmark. Therefore, in order to take a conservative analytical approach, this VIA will evaluate visual effects from the more sensitive motorist's perspective.

Users of Bridge Pedestrian Walkway. Hundreds of pedestrians and bicyclists travel across the Bridge on any given day. Some cross the Bridge commuting for work, while for others the Bridge is a destination itself.

For this analysis, effects of the project on the pedestrian/bicyclist viewer group will be focused on, for the same reason described above in the case of the motorist viewer group, and because of the duration of views experienced by this viewer group.

Visitors to Marin Headlands. As part of the Golden Gate National Recreation Area, the Marin Headlands are a popular attraction for recreationalists and tourists from the Bay Area and all over the world. Because their presence in the Marin Headlands is most commonly to enjoy scenic and recreational opportunities, this viewer group is especially sensitive to any changes that could detract from the aesthetic qualities of the area.

Viewer Exposure

This relationship applies to both viewers of the Bridge and viewers from the Bridge.

Viewing distance affects the degree of visibility of landscape features. Close viewpoints, typically within 0 to 0.3 miles (0 to 0.5 kilometers), permit perception of landscape detail and small-scale features. An intermediate viewpoint, typically from 0.3 to 3.0 miles (0.5 to 5.0 kilometers), permits the viewer to perceive the relationship of landscape features, although detailed perception is considerably reduced. Distant viewpoints, typically beyond 3.0 miles (5.0 kilometers) from the viewer, allow only perception of large-scale features (e.g., ridges, the Bay, and urban settlements), with little detail and considerable loss of color contrast.

From close viewpoints, the Bridge will encompass the entire view cone of a viewer facing it, and changes to it will be prominent. But from distant viewpoints, the Bridge will encompass only a

portion of the view cone of a person facing it, making it possible that changes to the Bridge will be less prominent.

A person's experience of the Bridge varies based upon location, the duration of the view, and the frequency of exposure to views of the Bridge. A cross-section of KOPs was chosen to provide a representative sample of potential views and viewer groups that would experience the MMB Project. Public views toward the Bridge can be experienced by the viewer groups described above.

Viewer Sensitivity

In the case of the Bridge, primary factors affecting viewer sensitivity are the architectural and cultural significance of the Bridge. The Bridge is situated in a unique setting and affords spectacular views to all those that travel across it. The setting and the views contribute to the popularity of the sidewalks and it is anticipated that viewer sensitivity within this group would be especially high.

VI. VISUAL IMPACT ASSESSMENT

A. Method of Assessing Project Impacts

The methodology used to assess visual impacts is also taken from the FHWA guidelines. The impact assessment process incorporates and combines the two principal visual impact components: visual resource change and viewer response to that change. Visual resource change is analyzed in terms of visual dominance and other specific visual effects of alternatives, together with change in visual quality. Viewer responses to these changes are interpreted on the basis of viewer types identified in this Assessment. Visual simulations were prepared to assist the analysis, using three-dimensional computer modeling overlaid on photographic images from site photos taken at the selected KOPs. For three of these KOPs, two visual simulations were prepared, in order to evaluate the project's visual effect under two scenarios.

B. Visual Impact Types and Assessment Criteria

Visual impacts were categorized into general types, and separate criteria apply to each different type of visual impact.

Criteria Specific Effects on Viewers

The criteria used to determine effects on viewers include: visual dominance of the project; view obstruction or view expansion; effects on community disruption; viewer orientation; and design quality issues, such as changes in vividness, intactness and unity.

Visual Dominance

Visual dominance refers to the contrast between the proposed improvements and their setting described in terms of vegetation, landform, and structural changes. Dominance is a function of how potentially noticeable the project is to the viewer, ranging from:

- In-evident: Project is visible but generally not noticeable.
- Subordinate: Project is noticeable, but attracts less attention than other components of the setting.
- Co-dominant: Project attracts attention equally with other components of the setting.
- Dominant: Project dominates the view and attracts more attention than other components of the setting.

Visual elements of scale, form, line, and position, as seen from representative sensitive viewing locations, determine the degree of contrast and dominance.

It is possible to determine the expected degree of visual dominance for the project from a given KOP. The determination involves an evaluation of the visibility and visual contrast of project components within their surroundings, together with viewing distance and degree of visual exposure for the viewer.

A visually dominant project represents a more substantial visual change if it occurs in areas such as an intact natural landscape. It is important to stress that visual dominance is only one of the criteria which may be considered in evaluating visual quality. The visual effect may be altered considerably by other criteria, including view obstruction/expansion; vividness; intactness; and unity.

Visual Compatibility

Visual compatibility describes the degree to which the project's visual elements (consisting of form, line, color, and texture) differ from the same visual elements established in the existing landscape. The presence of forms, lines, colors, and textures in the existing landscape similar to those of the project indicates a landscape more capable of accepting the project elements than a landscape where those elements are absent. The degree of visual contrast is rated as low, moderate, or high.

- Low: The visual character of the project contrasts strongly with the visual character of its setting.
- Moderate: The visual character of the project is different from the visual character of its setting, but does not strongly contrast with the visual character of its setting.
- High: The visual character of the project does not strongly contrast with the visual character of its setting.

View Obstruction or Expansion

View obstruction or expansion is a criterion that may modify the degree of adverse effect expected from the dominance evaluation. In terms of view blockage, existing views may be eliminated as a result of structural or landform additions that may block visual access.

Conversely, views may be improved or made newly available as a result of existing structural and landform elements being moved or removed. View obstruction or expansion is categorized as follows:

- **Obstructed view:** Project fully or largely blocks views of notable landscape features or vistas.
- **Partial view obstruction:** Project interrupts or partly screens views of notable landscape features or vistas, but some experience of viewing features or vistas remains.
- **No view obstruction:** Project does not interrupt or screen views of notable landscape features or vistas.
- **New or expanded view:** Project opens up views of notable landscape features or vistas.

In this Assessment, notable landscape features may include either positive visual elements with high visual unity and intactness (views of the Bay, ridgelines, open space, historic landmark structures) or negative ones with low unity and intactness (construction sites and construction staging areas). Therefore, whether the effect on view obstruction is considered adverse or beneficial depends on the object being viewed. This criterion has been applied only where important views or viewing directions toward notable features are affected; it is not applied in situations where general or unspecified views may be blocked.

Change in Visual Quality

Change in visual quality addresses the effect of the project on overall visual quality at the landscape unit scale. This can be determined by reevaluation of the vividness, unity, and intactness criteria for the unit with the post-project condition, noting both specific changes and overall changes in visual character. This analysis reflects the cumulative effects of the project on views as documented for particular KOPs.

Overall Effects on Viewers

An overall determination of adverse and beneficial effects on viewers is based on a combined evaluation of all the criteria described above. Impacts are categorized as:

- **Low:** little or no visual change and no tangible reduction or increase in visual quality, without negative or positive viewer responses expected.
- **Moderate:** moderate degrees of visual change and a reduction in the overall visual quality, with the likelihood of negative viewer responses.
- **High:** substantial visual change and considerable reduction in the overall visual quality, with the likelihood of strongly negative viewer responses.

In the absence of a formal viewer response survey on reactions to predicted visual impacts, the evaluation of viewer responses is based on the following: general criteria of visual sensitivity derived from FHWA guidance; and past visual studies conducted by Caltrans.

C. Analysis of Key Views

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 KOPs that would most clearly display the visual effects of the project. KOPs also represent the primary viewer groups that would potentially be affected by the project. The following KOPs were evaluated in this VIA:

KOP1: Northwestward View from Toll Plaza

KOP 2: Southeastward View from Toll Plaza

KOP 3: Southward View from Bridge Gift Center

KOP 4: Northwestward View from Toll Plaza Bus Stop

KOP 5: Southwestward View from Bridge Pedestrian Walkway

KOP 6: Northwestward View from Bridge Pedestrian Walkway

KOP 7: Southeastward View from Bridge

KOP 8: Northwestward View from Bridge

KOP 9: Southeastward View from U.S. 101

KOP 10: Northwestward View from Bicycle Trail near Vista Point

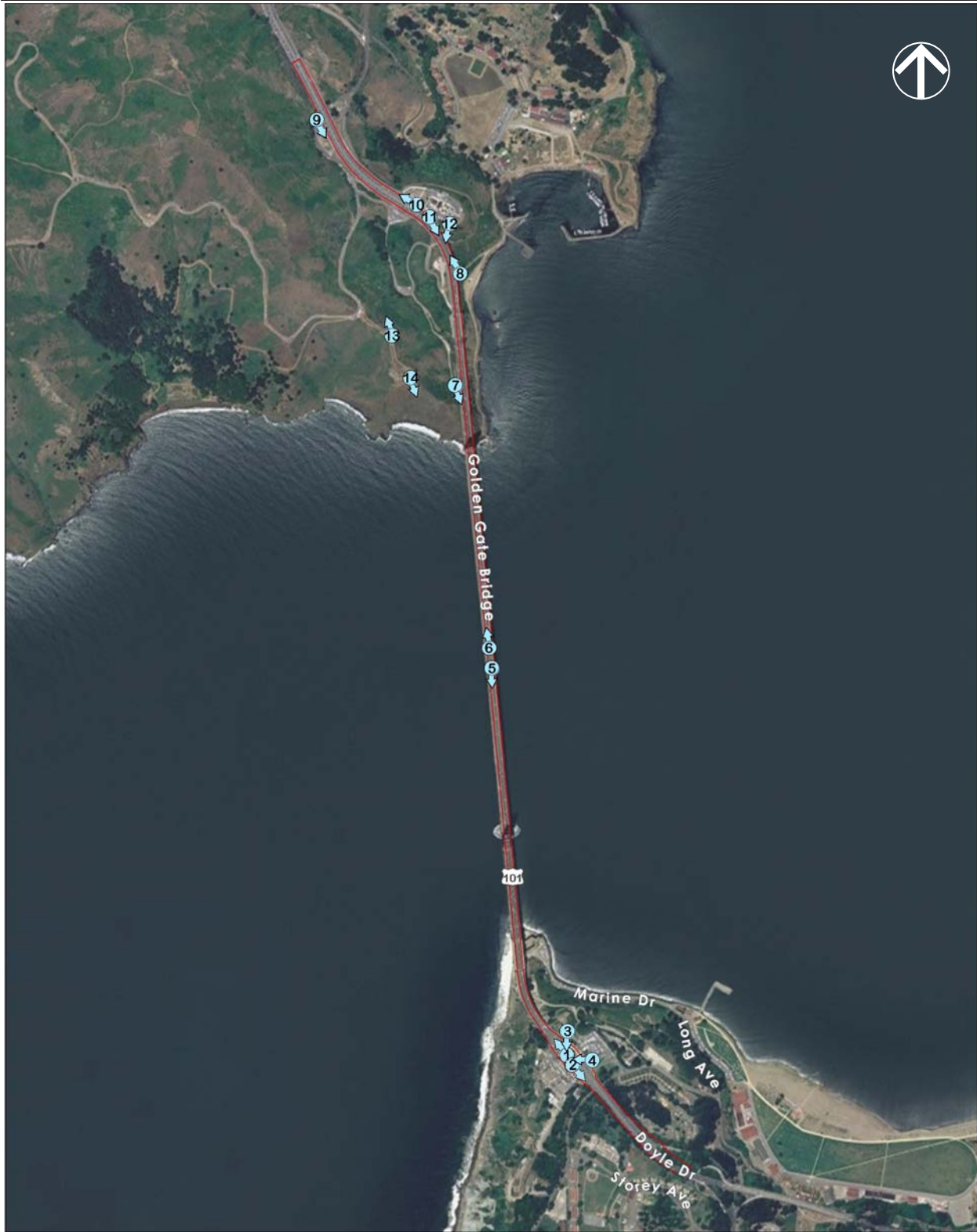
KOP 11: Southeastward View from Bicycle Trail near Vista Point

KOP 12: Southward View from Vista Point

KOP 13: Northward View from Marin Headlands

KOP 14: Southward View from Marin Headlands

Short and long term scenarios were analyzed for KOPs 2, 3 and 4 because phased project implementation activities would result in unique visual changes during each phase at those KOPs. KOP locations are shown in **Figure 5**. The following discussion presents the existing visual character of each KOP, identifies project features visible in each, and identifies project related visual effects associated with each KOP.



KOP Location and ID Number
(arrow indicates photograph direction)

KOP 1 – Northwestward View from Toll Plaza

Orientation

KOP 1 illustrates motorists' close range view of the project area as seen while traveling north on U.S. 101 across the Bridge. This KOP is located at the toll plaza at the southern end of the Bridge. The view includes the proposed BTM storage site (short-term scenario) and the median barrier location along the Bridge. The Bridge towers and the Marin Headlands are visible in the background. **Figure 6** depicts a photo-simulation of the project from this location.

The following discussion of the effects on the view from KOP 1 applies to both the short-term and long-term scenarios, since the altered view would be essentially the same in the short and long term. The only difference is that the BTM would not be stored within this view in the long term; it would be stored further south of the Bridge. The BTM would still be visible within this view in the long term as it travels across the Bridge past the toll plaza.

Landscape Unit

This KOP is located in the Toll Plaza landscape unit.

Viewer Groups

This viewpoint represents a typical view experienced by motorists traveling on the Bridge.

Existing Visual Quality/Character

KOP 1 illustrates a northwestward view seen by motorists when they pass through the Bridge toll plaza. This location is dominated by three visual elements. The immediate foreground is notable for the wide expanse of asphalt that composes the area immediately north of the toll plaza. This area is visually dynamic, as the constant movement of automobiles navigating the toll plaza leaves the foreground carpeted with slow moving or stationary automobiles, or relatively free of traffic. The active nature of the toll plaza area contrasts with objects visible in the middleground. The strong linear and curvilinear forms and distinctively warm color provided by the Bridge towers and suspension cables make a strong visual impression on viewers. These forms and colors are offset by the rounded amorphous hills of the Marin Headlands visible beyond the Bridge towers and roadbed.

There is a distinct separation between human-made and natural elements in the view, resulting in a high level of intactness. Unity is moderate, due to the prominence of the toll plaza asphalt roadbed when compared to the Bridge and hills beyond. Also due to the dominance of the toll plaza approach area, this KOP is moderately vivid and visual quality is moderate.

Proposed Project Features

Short Term Scenario: Project features visible in this KOP include the proposed MMB, the BTM and a set of new pylons, which would replace the existing yellow pylons.

Change to Visual Quality/Character

Visual Dominance: The proposed MMB would run the length of the Bridge, replacing the existing yellow pylons that currently separate opposing directions of traffic. In contrast to areas of the Bridge where the MMB would replace an existing fixed concrete barrier, the MMB would



KOP 1: Toll Plaza Looking Northwest (Existing)



KOP 1: Toll Plaza Looking Northwest (Short Term, Simulation)

result in a net increase in visual bulk, but a decrease in visual clutter in areas where it would replace yellow pylons. The MMB would be visible as a low solid wall running along the Bridge and would be more noticeable to viewers than the existing pylons. However, the visual contrast produced by the MMB would be subordinate to more dominant features of the view such as the Bridge towers, other Bridge components, and surrounding traffic. The BTM would be more noticeable than the MMB, but would not drastically change the visual character of the area, given that it so closely resembles a truck, many of which are present throughout each day on the Bridge.

View Obstruction: Under the proposed project, the portion of the highway currently divided by the yellow pylons would be divided by the MMB, which would partially block views of a portion of the southbound highway lanes. However, no views of any notable landscape features or vistas would be obstructed. When the BTM is stationed at this location, it would partially block views of the Bridge deck and hills in the distance. However, these features are blocked in a similar manner under existing conditions by trucks passing through the toll plaza. It is anticipated that the visual obstruction associated with the project would be experienced for only a brief duration, as motorists would quickly pass the BTM station.

Visual Compatibility: Proposed project features visible from this KOP would be compatible with existing features of the view. Viewers at this location would see a barrier on the Bridge similar in character to barriers that are regularly seen within highway rights-of-way. Though the proposed barrier would be a new feature on the Bridge, it would be highly compatible with visual expectations regarding highway corridors. The presence of the BTM on the Bridge would also be a compatible feature in the view, given its similarity in size and bulk to the many large trucks found on the Bridge throughout each day.

Overall Visual Quality: Changes to the vividness of the view after project implementation would be noticeable but not substantial. The proposed MMB would not dramatically alter the visual experience of viewers at this location. The barrier and BTM would not be out of character for a busy highway location such as this, and their massing would be familiar enough that they would not attract a considerable amount of attention. In this view, the existing Bridge features would continue to be much more dominant and attractive to viewers.

Resulting Visual Impact: Overall viewer response and change in visual character would be negligible. The resulting visual impact would be low (less than significant).

KOP 2 – Southeastward View from Toll Plaza

Orientation

KOP 2 represents the view seen by motorists as they travel south from the toll plaza toward Doyle Drive and the Presidio. **Figure 7** depicts a photo-simulation of the proposed project from this location over the short term, while **Figure 8** depicts a photo-simulation of the project over the long term from this location.



KOP 2: Toll Plaza Looking Southeastt (Existing)



KOP 2: Toll Plaza Looking Southeast (Short Term, Simulation)



KOP 2: Toll Plaza Looking Southeast (Existing)



KOP 2: Toll Plaza Looking Southeast (Long Term, Simulation)

Landscape Unit

This KOP is located in the Toll Plaza landscape unit.

Viewer Groups

This viewpoint represents a typical view experienced by motorists traveling on the Bridge.

Existing Visual Quality/Character

KOP 2 illustrates a southeastward view experienced by motorists when they pass through the Bridge toll plaza. This location is dominated by two visual elements. The immediate foreground is notable for the wide expanse of asphalt that composes the approach to the southern side of the toll plaza area. This area is visually dynamic, as the constant movement of automobiles navigating the toll plaza leaves the foreground either carpeted with slow moving or stationary automobiles, or relatively free of traffic. The active nature of the toll plaza area contrasts with objects visible beyond it. Dense vegetation on both sides of the highway approach to the toll plaza obscures views of the Presidio.

The flat uniform nature of the highway surface contrasts with the irregular natural form of the roadside vegetation, resulting in a moderate level of unity and intactness. The view is not particularly vivid, especially given that there are highly vivid views in the immediate area. However, the view is not unattractive and overall visual quality can be characterized as moderate.

Proposed Project Features

Short Term Scenario: The project feature visible in this KOP includes a portion of a temporary median barrier.

Long Term Scenario: Project features visible in this KOP include the proposed MMB, which would extend from the viewer's location to the vanishing point on the horizon. The BTM would also be slightly visible near the horizon's vanishing point.

Change to Visual Quality/Character

Visual Dominance, Short Term Scenario: The temporary barrier would replace a small number of the existing yellow pylons that currently separate opposing directions of traffic at the toll plaza. The temporary barrier would result in a small net increase in visual bulk, but a decrease in visual clutter in areas where it would replace yellow pylons. The barrier would be visible as a low streamlined solid wall running along the roadway. The visual contrast produced by the barrier would be subordinate to more dominant features of the view such as the existing mature vegetation flanking both sides of the approach to the toll plaza.

Visual Dominance, Long Term Scenario: The proposed MMB would run the length of the Bridge, replacing the existing yellow pylons that currently separate opposing directions of traffic. In areas of the Bridge where the MMB would replace an existing fixed concrete barrier, the MMB would result in a net increase in visual bulk, but a decrease in visual clutter associated with the median barrier in areas where it would replace yellow pylons. The MMB would be visible as a low streamlined solid wall running along the Bridge and would be more noticeable to viewers

than the existing pylons. However, the visual contrast produced by the MMB would be subordinate to more dominant features of the view such as the existing mature vegetation flanking both sides of the approach to the toll plaza.

View Obstruction, Short Term Scenario: Under the proposed project, a small length of the highway currently divided by the yellow pylons would be divided by the temporary barrier, which would partially block views of a portion of the northbound highway lanes. However, no views of any notable landscape features or vistas would be obstructed.

View Obstruction, Long Term Scenario: Under the proposed project, the entire length of the highway currently divided by the yellow pylons would be divided by the MMB, which would partially block a portion of the view of northbound highway lanes. However, no views of any notable landscape features or vistas would be obstructed. The BTM, which would be slightly visible in the background, would not obstruct any notable landscape features or vistas.

Visual Compatibility, Short Term Scenario: Proposed project features visible from this KOP would be compatible with existing features of the view. Viewers at this location would see a barrier and pylons on the roadway similar in character to roadway elements currently seen within most highway rights-of-way. Though the proposed features would be new to this location, they would be highly compatible with viewer expectations of a highway corridor.

Visual Compatibility, Long Term Scenario: Proposed project features visible from this KOP would be compatible with existing features of the view. Viewers at this location would see a barrier on the roadway similar in character to barriers that are regularly seen within highway rights-of-way. Though the proposed feature would be new to this location, it would be highly compatible with visual expectations regarding highway corridors. The presence of the BTM on the Bridge would also be a compatible feature in the view, given its similarity in size and bulk to the many large trucks presently found on the Bridge.

Overall Visual Quality, Short Term Scenario: Changes to the vividness of the view after project implementation would be noticeable but not substantial. The proposed temporary barrier would not dramatically alter the visual experience of viewers at this location. The barrier would not be out of character for a busy highway location such as this, and its massing would not attract a considerable amount of attention. In this view, existing features would continue to be much more dominant and attractive to viewers.

Overall Visual Quality, Long Term Scenario: Changes to the vividness of the view after project implementation would be noticeable but not substantial. The proposed MMB would not dramatically alter the visual experience of viewers at this location. The barrier and BTM would not be out of character for a busy highway location such as this, and their massing would be familiar enough that they would not attract a considerable amount of attention. In this view, existing features would continue to be much more dominant and attractive to viewers.

Resulting Visual Impact, Short Term Scenario: Overall viewer response and change in visual character would be negligible. The resulting visual impact would be low (less than significant).

Resulting Visual Impact, Long Term Scenario: Overall viewer response and change in visual character would be negligible. The resulting visual impact would be low (less than significant).

KOP 3: Southward View from Bridge Gift Center

Orientation

KOP 3 represents a close-range view of the toll plaza as experienced by tourists and recreational users. This KOP is located along the pedestrian walkway near the Bridge Gift Center on the east side of the southern end of the Bridge. The view is looking south toward the toll booths. **Figure 9** depicts a photo-simulation of the proposed project from this location over the short term, while **Figure 10** depicts a photo-simulation of the project over the long term from this location.

Landscape Unit

This KOP is located in the Toll Plaza landscape unit.

Viewer Groups

This viewpoint represents a typical view experienced by users of the Bridge pedestrian walkway.

Existing Visual Quality/Character

From the Bridge Gift Center, it is possible to view the Bridge toll booths at a relatively close distance. The toll booths are covered by a low flat roof painted in the same International Orange color as the Bridge, and a digital display screen sits on the roof above each toll booth. The low, wide and rectilinear structure that encloses the toll booths and the flat asphalt surface of the toll plaza area are the dominant characteristics of this view.

The toll booths and toll plaza approach road form a unified and intact combination of utilitarian human-made structures. However, they are not particularly unique, nor do they possess highly scenic qualities, resulting in a relatively low level of vividness and an overall low level of visual quality.

Proposed Project Features

Short Term Scenario: Project features visible in this KOP include three proposed high-roof toll booths that would replace several of the existing low-roof booths, a temporary median barrier, and a new set of yellow pylons.

Long Term Scenario: Project features visible in this KOP include three proposed high-roof toll booths that would replace several of the existing low-roof booths and the MMB.

Change to Visual Quality/Character

Visual Dominance, Short Term Scenario: The proposed temporary barrier would replace a small number of the existing yellow pylons that currently separate opposing directions of traffic at the toll plaza, while a new row of yellow pylons would replace an existing row of yellow pylons. The temporary barrier would result in a small net increase in visual bulk in areas where it would replace yellow pylons, but would reduce the level of visual clutter associated with the pylons.



KOP 3: Bridge Gift Center Looking South (Existing)



KOP 3: Bridge Gift Center Looking South (Short Term, Simulation)



KOP 3: Bridge Gift Center Looking South (Existing)



KOP 3: Bridge Gift Center Looking South (Long Term, Simulation)

The barrier would be visible as a streamlined low solid wall running along the roadway. The visual contrast produced by the barrier would be subordinate to more dominant features of the view such as the toll plaza structures, nearby vegetation and passing vehicles.

Visual Dominance, Long Term Scenario: The proposed MMB would replace a small number of the existing yellow pylons that currently separate opposing directions of traffic at the toll plaza. The MMB would result in a small net increase in visual bulk in areas where it would replace yellow pylons, but would reduce the level of visual clutter associated with the pylons. It would be visible as a streamlined low solid wall running along the roadway. The visual contrast produced by the MMB would be subordinate to more dominant features of the view such as the toll plaza structures, nearby vegetation and passing vehicles.

View Obstruction, Short Term Scenario: Under the proposed project, a small length of the highway currently divided by the yellow pylons would be divided by the temporary barrier, which would partially block a portion of views of southbound highway lanes. However, no views of any notable landscape features or vistas would be obstructed. The proposed toll booths would be taller than the existing booths, but would actually result in less view obstruction given that they would be more visually porous than the existing booths. Nevertheless, views would remain partially obstructed.

View Obstruction, Long Term Scenario: Under the proposed project, a small length of the highway currently divided by the yellow pylons would be divided by the MMB, which would partially block views of a portion of the southbound highway lanes. However, no views of any notable landscape features or vistas would be obstructed. The proposed toll booths would be taller than the existing booths, but would actually result in less view obstruction given that they would be more visually porous than the existing booths. Nevertheless, views would remain partially obstructed.

Visual Compatibility, Short Term Scenario: Proposed project features visible from this KOP would be compatible with existing features of the view. Viewers at this location would see a barrier on the roadway similar in character to barriers that are regularly seen within highway rights-of-way. Though the proposed feature would be new to this location, it would be highly compatible with visual expectations regarding highway corridors. The design of the proposed toll booths would be taller and more streamlined than existing booths, but would have architectural and aesthetic consistency with existing structures.

Visual Compatibility, Long Term Scenario: Proposed project features visible from this KOP would be compatible with existing features of the view. Viewers at this location would see the MMB and pylons on the roadway similar in character to barriers and pylons that are regularly seen within highway rights-of-way. The proposed features would be highly compatible with visual expectations regarding highway corridors. The design of the proposed toll booths would be taller and more minimalist than the booths they would replace, but nevertheless would be compatible with the design of the existing booths in terms of the materials and colors used for their construction.

Overall Visual Quality, Short Term Scenario: Changes to the vividness of the view after project implementation would be noticeable but not substantial. The proposed temporary barrier would not dramatically alter the visual experience of viewers at this location. The barrier would not be out of character for this location, and its massing would not attract a considerable amount of attention. In this view, existing and other proposed features associated with the toll plaza would be more visually dominant.

Overall Visual Quality, Long Term Scenario: Changes to the vividness of the view after project implementation would be noticeable but not substantial. The proposed MMB would not dramatically alter the visual experience of viewers at this location. The MMB would not be out of character for this location, and its massing would not attract a considerable amount of attention. In this view, existing and other proposed features associated with the toll plaza would be more visually dominant.

Resulting Visual Impact, Short Term Scenario: Overall viewer response and change in visual character would be negligible. The resulting visual impact would be low (less than significant).

Resulting Visual Impact, Long Term Scenario: Overall viewer response and change in visual character would be negligible. The resulting visual impact would be low (less than significant).

KOP 4 – Northwestward View from Toll Plaza Bus Stop

Orientation

KOP 4 represents a close-range view of the toll plaza as experienced by tourists, recreational users and commuters. This KOP is located at the bus stop southeast of the toll plaza. The view is looking northwest towards the toll booths. **Figure 11** depicts a photo-simulation of the proposed project from this location over the short term, while **Figure 12** depicts a photo-simulation of the project over the long term from this location.

Landscape Unit

This KOP is located in the Toll Plaza landscape unit.

Viewer Groups

This viewpoint represents a typical view experienced by users of the Bridge pedestrian walkway.

Existing Visual Quality/Character

From the bus stop at the toll plaza, it is possible to view the Bridge toll booths at a relatively close distance. The toll booths are covered by a low flat roof painted in the same International Orange color as the Bridge, and a digital display screen sits on the roof above each toll booth. The low, wide and rectilinear structure that encloses the toll booths and the flat asphalt surface of the toll plaza area are the dominant characteristics of this view.

The toll booths and toll plaza approach road form a unified and intact combination of utilitarian human-made structures. However, they are not particularly unique, nor do they possess highly



KOP 4, Bus Stop at Toll Plaza Looking Northwest(Existing)



KOP 4, Bus Stop at Toll Plaza Looking Northwest (Short Term, Simulation)



KOP 4, Bus Stop at Toll Plaza Looking Northwest(Existing)



KOP 4, Bus Stop at Toll Plaza Looking Northwest (Long Term, Simulation)

scenic qualities, resulting in a relatively low level of vividness and an overall low level of visual quality.

Proposed Project Features

Short Term Scenario: Project features visible in this KOP include three proposed high-roof toll booths that would replace several of the existing low-roof booths, a temporary median barrier, and the BTM when it is being stored at the toll plaza.

Long Term Scenario: Project features visible in this KOP include three proposed high-roof toll booths that would replace several of the existing low-roof booths, and the MMB.

Change to Visual Quality/Character

Visual Dominance, Short Term Scenario: The proposed temporary barrier would replace a number of the existing yellow pylons that currently separate opposing directions of traffic at the toll plaza. The temporary barrier would result in a small net increase in visual bulk in areas where it would replace yellow pylons, but would reduce the visual clutter associated with the pylons. It would be visible as a streamlined low solid wall running along the roadway and would certainly be more noticeable to viewers than the existing pylons. The visual contrast produced by the barrier would be subordinate to more dominant features of the view such as the toll plaza structures, nearby vegetation and passing vehicles.

Visual Dominance, Long Term Scenario: The proposed MMB would replace a number of the existing yellow pylons that currently separate opposing directions of traffic at the toll plaza. The MMB would result in a small net increase in visual bulk in areas where it would replace yellow pylons, but it would reduce the visual clutter associated with the pylons. It would be visible as a streamlined low solid wall running along the roadway. The visual contrast produced by the MMB would be subordinate to more dominant features of the view such as the toll plaza structures, nearby vegetation and passing vehicles.

View Obstruction, Short Term Scenario: Under the proposed project, a portion of the highway currently divided by yellow pylons would be divided by the temporary barrier, which would partially block views of a portion of the northbound highway lanes. However, no views of any notable landscape features or vistas would be obstructed. The proposed toll booths would be taller than the existing booths, but would actually result in less view obstruction given that they would be more visually porous than the existing booths. Nevertheless, views would remain partially obstructed.

View Obstruction, Long Term Scenario: Under the proposed project, a portion of the highway currently divided by yellow pylons would be divided by the MMB, which would partially block a portion of the northbound highway lanes. However, no views of any notable landscape features or vistas would be obstructed. The proposed toll booths would be taller than the existing booths, but would actually result in less view obstruction given that they would be more visually porous than the existing booths. Nevertheless, views would remain partially obstructed.

Visual Compatibility, Short Term Scenario: Proposed project features visible from this KOP would be compatible with existing features of the view. Viewers at this location would see a temporary barrier and pylons on the roadway similar in character to barriers that are regularly seen within highway rights-of-way. Though the proposed feature would be new to this location, it would be highly compatible with visual expectations regarding highway corridors. The design of the proposed toll booths would be taller and more minimalist than the booths they would replace, but nevertheless would be compatible with the design of the existing booths in terms of the materials and colors used for their construction.

Visual Compatibility, Long Term Scenario: Proposed project features visible from this KOP would be compatible with existing features of the view. Viewers at this location would see the MMB, which would be similar in character to barriers that are regularly seen within highway rights-of-way. Though the proposed features would be new to this location, they would be highly compatible with visual expectations regarding highway corridors. The design of the proposed toll booths would be taller and more minimalist than the booths they would replace, but nevertheless would be compatible with the design of the existing booths in terms of the materials and colors used for their construction. Nevertheless, views would remain partially obstructed.

Overall Visual Quality, Short Term Scenario: Changes to the vividness of the view after project implementation would be noticeable but not substantial. The proposed temporary barrier would not dramatically alter the visual experience of viewers at this location. The barrier would not be out of character for this location, and its massing would not attract a considerable amount of attention. In this view, existing and other proposed features associated with the toll plaza would be more visually dominant.

Overall Visual Quality, Long Term Scenario: Changes to the vividness of the view after project implementation would be noticeable but not substantial. The proposed MMB would not dramatically alter the visual experience of viewers at this location. The MMB would not be out of character for this location, and its massing would not attract a considerable amount of attention. In this view, existing and other proposed features associated with the toll plaza would be more visually dominant.

Resulting Visual Impact, Short Term Scenario: Overall viewer response and change in visual character would be negligible. The resulting visual impact would be low (less than significant).

Resulting Visual Impact, Long Term Scenario: Overall viewer response and change in visual character would be negligible. The resulting visual impact would be low (less than significant).

KOP 5 – Southwestward View from Bridge Pedestrian Walkway

Orientation

KOP 5 represents a close-range view of the Bridge as experienced by users of the pedestrian walkway along the east side of the Bridge. This KOP is located in the middle of the Bridge span between the Bridge towers. The view is looking southwest towards the southern Bridge tower

and includes the travel lanes along the Bridge in the foreground and the Presidio and the Richmond District of San Francisco in the background. **Figure 13** depicts a photo-simulation of the proposed project from this location.

Landscape Unit

This KOP is located in the San Francisco Bay landscape unit.

Viewer Groups

This viewpoint represents a typical view experienced by users of the Bridge pedestrian walkway.

Existing Visual Quality/Character

The view from this KOP provides users of the eastern pedestrian walkway a dramatic view of the southern Bridge tower standing in the foreground. The tower, Bridge roadbed and passing vehicles are the dominant visual features of this KOP. The vertical elements of the Bridge's suspension cables, the pedestrian walkway and light posts are also evident, but their relatively thin profiles allow them to recede from the viewer's focus when compared to the degree of attention commanded by the primary visual features. From this location, the hilly landforms of the Presidio area literally and figuratively recede into the background; they are visible, but do not strongly attract a viewer's attention.

The Bridge tower, roadbed, pedestrian walkway and suspension cables form a coherent, unified and intact combination of human-made utilitarian structures. However, the iconic and classic design of the Bridge tower results in a vivid image for viewers that is beyond merely utilitarian. Though the Bridge roadbed and moving vehicles are prominent, the form and color of the tower and suspension cables produce a view with high memorability and visual quality.

Proposed Project Features

Project features visible in this KOP include the proposed MMB, which would replace the existing yellow pylons.

Change to Visual Quality/Character

Visual Dominance: The proposed MMB would run the length of the Bridge, replacing the existing yellow pylons that currently separate opposing directions of traffic. In contrast to areas of the Bridge where the MMB would replace an existing fixed concrete barrier, the MMB would result in a net increase in visual bulk, but a decrease in visual clutter associated with the median barrier in areas where it would replace yellow pylons. The MMB would be visible as a streamlined low solid wall running along the Bridge. The visual contrast produced by the MMB would be subordinate to more dominant features of the view such as the Bridge towers and other Bridge components.

View Obstruction: Under the proposed project, the portion of the highway currently divided by the yellow pylons would be divided by the MMB, which would partially block a portion of the southbound highway lanes. However, no views of any notable landscape features or vistas would be obstructed.



KOP 5, Pedestrian Walkway Along Bridge Looking Southwest (Existing)



KOP 5, Pedestrian Walkway Along Bridge Looking Southwest (Simulation)

Visual Compatibility: Proposed project features visible from this KOP would be compatible with existing features of the view. Under the proposed project, users of the pedestrian walkway would see a barrier on the Bridge similar in character to barriers that are regularly seen within highway rights-of-way. Though the proposed barrier would be a new feature on the Bridge, it would be highly compatible with visual expectations regarding highway corridors. The periodic presence of the BTM on the Bridge would also not be an incompatible feature in the view, given its similarity in size and bulk to the many large trucks that continually cross the Bridge.

Overall Visual Quality: Changes to the vividness of the view after project implementation would be noticeable but not substantial. The proposed MMB would not dramatically alter the visual experience of pedestrian walkway users. The barrier would not be out of character for a busy highway location such as this, and its profile would be such that it would not attract a considerable amount of attention. In this view, the existing Bridge features would continue to be much more dominant and attractive to viewers.

Resulting Visual Impact: Overall viewer response and change in visual character would be negligible. The resulting visual impact would be low (less than significant).

KOP 6 – Northwestward View from Bridge Pedestrian Walkway

Orientation

KOP 6 represents a close-range view of the Bridge as experienced by tourists and recreational users on the pedestrian walkway along the east side of the Bridge. This KOP is located in the middle of the Bridge span between the Bridge towers, just north of KOP 5. The view is looking northwest towards the northern Bridge tower and includes the travel lanes along the Bridge in the foreground and the Marin Headlands in the background. **Figure 14** depicts a photo-simulation of the proposed project from this location.

Landscape Unit

This KOP is located in the San Francisco Bay landscape unit.

Viewer Groups

This viewpoint represents a typical view experienced by users of the Bridge pedestrian walkway.

Existing Visual Quality/Character

The view from this KOP provides users of the western pedestrian walkway a dramatic view of the northern Bridge tower and hills of the Marin Headlands. The tower, Bridge roadbed, the rounded forms of the Marin Headlands, and passing vehicles are the dominant visual features of this KOP. However, unlike KOP 5, a viewer at this location would experience a more prominent view of the suspension cables as the horizontal cable is lower from this perspective. The pedestrian walkway is also evident, but its relatively thin profile allows it to slightly recede from the viewer's focus when compared to the degree of attention commanded by the tower, Marin Headlands, suspension cables, roadbed and passing vehicles.



KOP 6, Pedestrian Walkway Along Bridge Looking Northwest (Existing)



KOP 6, Pedestrian Walkway Along Bridge Looking Northwest (Simulation)

The Bridge tower, roadbed, pedestrian walkway and suspension cables form a coherent, unified and intact combination of human-made utilitarian structures. However, the iconic and classic design of the Bridge tower and the greater prominence of the horizontal suspension cable provide a vivid and memorable image for viewers. Though the Bridge roadbed and moving vehicles are prominent elements of this KOP and are not inherently scenic, the remaining visual elements of this KOP compose a harmonious view with high visual quality.

Proposed Project Features

Project features visible in this KOP include the proposed MMB, which would replace the existing yellow pylons.

Change to Visual Quality/Character

Visual Dominance: The proposed MMB would run the length of the Bridge, replacing the existing yellow pylons that currently separate opposing directions of traffic. In contrast to areas of the Bridge where the MMB would replace an existing fixed concrete barrier, the MMB would result in a net increase in visual bulk, but a decrease in visual clutter associated with the median barrier in areas where it would replace yellow pylons. The MMB would be visible as a streamlined low solid wall running along the Bridge. The visual contrast produced by the MMB would be subordinate to more dominant features of the view such as the Bridge towers and other Bridge components.

View Obstruction: Under the proposed project, the portion of the highway currently divided by the yellow pylons would be divided by the MMB, which would partially block views of a portion of the southbound highway lanes. However, no views of any notable landscape features or vistas would be obstructed.

Visual Compatibility: Project features visible from this KOP would be compatible with existing features of the view. Under the proposed project, pedestrians would see a barrier on the Bridge that would be similar in character to barriers that are regularly seen within highway rights-of-way. Though the proposed barrier would be a new feature on the Bridge, it would be highly compatible with visual expectations regarding highway corridors. The periodic presence of the BTM on the Bridge would also not be an incompatible feature in the view, given its similarity in size and bulk to the many large trucks that continually cross the Bridge.

Overall Visual Quality: Changes to the vividness of the view after project implementation would be noticeable but not substantial. The proposed MMB would not dramatically alter the visual experience of pedestrian walkway users. The barrier would not be out of character for a busy highway location such as this, and its low profile would be such that it would not attract a considerable amount of attention. In this view, existing Bridge features and the Marin Headland's scenic backdrop would continue to be much more dominant and attractive to viewers.

Resulting Visual Impact: Overall viewer response and change in visual character would be negligible. The resulting visual impact would be low (less than significant).

KOP 7 – Southeastward View from Bridge

Orientation

KOP 7 represents a motorist's close range view of the project area while traveling south across the Bridge. This KOP is located within a southbound travel lane on the west side of the Bridge, just north of the northern Bridge tower. The view is toward the southeast and includes the existing yellow median pylons, northbound traffic in the foreground and the Bridge towers in the distance. **Figure 15** depicts the proposed project in a photo-simulation from this location.

Landscape Unit

This KOP is located in the Marin Headlands landscape unit.

Viewer Groups

This viewpoint represents a typical view experienced by motorists traveling on the Bridge.

Existing Visual Quality/Character

At this location, motorists traveling across the Bridge are provided a striking view of both towers standing before them. The two towers are elegantly complemented by the thin arching lines of the suspension cables as they rise to the tops of the towers. From this location, motorists do not see a wide variety of surrounding landscape features, with the exception of the sloping hillsides of the Marin Headlands adjacent to the Bridge, to the right of the viewable image in the KOP photograph.

Motorists experience a highly unified and intact view of the features that constitute the Bridge, given that its features are not visually diluted by other objects in the area. The Bridge's large scale, striking color and iconic design, combined with a viewer's ability to focus exclusive of other visual stimuli besides automobile traffic, result in a view with high visual quality.

Proposed Project Features

Project features visible in this KOP include the proposed MMB, which would replace the existing yellow pylons.

Change to Visual Quality/Character

Visual Dominance: The proposed MMB would run the length of the Bridge, replacing the existing yellow pylons that currently separate opposing directions of traffic. In contrast to areas of the Bridge where the MMB would replace an existing fixed concrete barrier, in this case the MMB would result in a net increase in visual bulk associated with the median barrier in areas where it would replace yellow pylons. However, the barrier would reduce the visual clutter associated with the pylons. The MMB would be visible as a streamlined low solid wall running along the Bridge. The visual contrast produced by the MMB would be subordinate to more dominant features of the view such as the Bridge towers and other Bridge components, as well as surrounding automobile traffic.

View Obstruction: Under the proposed project, the portion of the highway currently divided by the yellow pylons would be divided by the MMB, which would partially block views of a portion



KOP 7, Driving South Across Bridge Looking Southeast (Existing)



KOP 7, Driving South Across Bridge Looking Southeast (Simulation)

of the southbound highway lanes. However, no views of any notable landscape features or vistas would be obstructed.

Visual Compatibility: Project features visible from this KOP would be compatible with existing features of the view. Under the proposed project, motorists would see a barrier on the Bridge that would be similar in character to barriers that are regularly seen within highway rights-of-way. Though the proposed barrier would be a new feature on the Bridge, it would be highly compatible with visual expectations regarding highway corridors. The periodic presence of the BTM on the Bridge would also not be an incompatible feature in the view, given its similarity in size and bulk to the many large trucks that continually cross the Bridge.

Overall Visual Quality: Changes to the vividness of the view after project implementation would be noticeable but not substantial. The proposed MMB would not dramatically alter the visual experience of motorists. The barrier would not be out of character for a busy highway location such as this, and its low profile would be such that it would not attract a considerable amount of attention. In this view, existing Bridge features and visible landscape features would continue to be more dominant and attractive to viewers.

Resulting Visual Impact: Overall viewer response and change in visual character would be negligible. The resulting visual impact would be low (less than significant).

KOP 8 – Northwestward View from Bridge

Orientation

KOP 8 represents a motorist's close-range view of the project area while traveling north across the Bridge. Located within a northbound travel lane on the east side of the Bridge, this view is toward the northwest. The yellow pylons and southbound traffic are visible in the foreground, while the Marin Headlands and the entrance to the Waldo Tunnel are visible in the background. **Figure 16** depicts a photo-simulation of the proposed project from this location.

Landscape Unit

This KOP is located in the Fort Baker landscape unit.

Viewer Groups

This viewpoint represents a typical view experienced by motorists traveling on the Bridge.

Existing Visual Quality/Character

For motorists driving north on the Bridge, the view from KOP 8 is less striking than locations that provide views of the Bridge's most dramatic features and the San Francisco skyline. From this KOP, motorists do not see those more dramatic Bridge components, but they do experience a visual transition from views dominated by the Bridge to a view where the natural landscape is more prominent. Here the Bridge connects to the Marin Headlands in a subtle way, with the continuation of the pedestrian walkway railing and lamp posts edging the roadway, but without the presence of towers or suspension cables.



KOP 8, Driving North Across Bridge Looking Northwest (Existing)



KOP 8, Driving North Across Bridge Looking Northwest (Simulation)

From this KOP, the rounded hill slopes of the Marin Headlands are viewable from close range, their soft and irregular texture contrasting with the harder angular form of the Bridge. Though there is a contrast between these natural and human-made elements, the visual transition is not jarring and can be characterized as unified and complementary. The view from this location is pleasant and of high quality.

Proposed Project Features

Project features visible in this KOP include the proposed MMB, which would replace the existing yellow pylons.

Expected Visual Quality/Character

Visual Dominance: In contrast to areas of the Bridge where in other KOPs the MMB would replace an existing fixed concrete barrier, in this KOP the MMB would result in a net increase in visual bulk, but a decrease in visual clutter associated with the median barrier in areas where it would replace yellow pylons. The MMB would be visible as a streamlined low solid wall running along the Bridge. The visual contrast produced by the MMB would be subordinate to more dominant features of the view such as the rounded hill slopes of the Marin Headlands, as well as surrounding automobile traffic.

View Obstruction: Under the proposed project, the portion of the highway currently divided by the yellow pylons would be divided by the MMB, which would partially block views of a portion of the southbound highway lanes. However, no views of any notable landscape features or vistas would be obstructed.

Visual Compatibility: Project features visible from this KOP would be compatible with existing features of the view. Under the proposed project, motorists would see a barrier on the Bridge that would be similar in character to barriers that are regularly seen within highway rights-of-way. Though the proposed barrier would be a new feature on the Bridge, it would be highly compatible with visual expectations regarding highway corridors. The periodic presence of the BTM on the Bridge would also not be an incompatible feature in the view, given its similarity in size and bulk to the many large trucks that continually cross the Bridge.

Overall Visual Quality: Changes to the vividness of the view after project implementation would be noticeable but not substantial. The proposed MMB would not dramatically alter the visual experience of motorists. The barrier would not be out of character for a busy highway location such as this, and its low profile would be such that it would not attract a considerable amount of attention. In this view, the Marin Headlands would be much more dominant and attractive to viewers.

Resulting Visual Impact: Overall viewer response and change in visual character would be negligible. The resulting visual impact would be low (less than significant).

KOP 9 – Southeastward View from U.S. 101

Orientation

KOP 9 represents the motorist's close-range view of the project area while traveling south on U.S. 101 towards the Bridge. This KOP is located within a southbound travel lane on the west side of the highway. The view is toward the southeast and includes the existing yellow pylons and permanent concrete barrier in the foreground. Northbound traffic and Vista Point are visible, while Alcatraz Island, the Oakland-San Francisco Bay Bridge, and the downtown San Francisco skyline are visible in the distance. **Figure 17** depicts a photo-simulation of the proposed project from this location.

Landscape Unit

This KOP is located in the Marin Headlands landscape unit.

Viewer Groups

This viewpoint represents a typical view experienced by motorists traveling on the Bridge.

Existing Visual Quality/Character

This location along U.S. 101 provides sweeping and scenic long distance views of the downtown San Francisco skyline, Alcatraz Island and the Oakland-San Francisco Bay Bridge, and an expansive view of San Francisco Bay. From this location, the rectilinear forms that compose the San Francisco skyline jut out dramatically against the foreground of the Bay. The thin delicate lines of the Bay Bridge make landfall, connecting both sides of the Bay. These elements compete with the highway and moving vehicles for the viewer's attention.

From this location, motorists see various prominent features, including the highway, the existing fixed median barrier and other moving vehicles in the immediate foreground. However, because the middleground and background scenery is so dramatic, this view is intact, unified and has a high degree of vividness. Overall visual quality is high.

Proposed Project Features

Project features visible in this KOP include the proposed MMB, which would run parallel to the other side of the existing fixed barrier. At this location along U.S. 101, the fixed barrier would run parallel to the MMB for a distance of about 224 feet.

Change to Visual Quality/Character

Visual Dominance: Installation of the MMB would not result in a substantial level of visual contrast relative to various other foreground, middleground and background features. From this KOP, most of the foreground would be dominated by the existing median barrier, with the MMB barely visible near the viewer, but the MMB would become more visible as the highway stretches away from the viewer and the fixed barrier terminates. The MMB's visual dominance would be subordinate to other elements in the view.

View Obstruction: Installation of the MMB would not interrupt or screen views of notable landscape features or vistas. In fact, from this KOP, the existing barrier would largely obstruct views of the MMB.



KOP 9, Driving South on U.S. 101 Towards Bridge Looking Southeast (Existing)



KOP 9, Driving North Across Bridge Looking Southeast (Simulation)

Visual Compatibility: Project features visible from this KOP would be highly compatible with existing features of the view, given that the MMB's dimensions, color and texture would be similar to those of the existing barrier.

Overall Visual Quality: After project implementation, motorists would continue to see the highway, existing fixed median barrier and other moving vehicles in the immediate foreground, all of which would be prominent from this vantage point. However, because middleground and background scenery visible from this KOP is so dramatic, this view would continue to be intact, unified and highly vivid. Overall visual quality would continue to be high.

Resulting Visual Impact: Overall change in viewer response and visual character would be negligible. The resulting visual impact would be low (less than significant).

KOP 10 – Northwestward View from Bicycle Trail Near Vista Point

Orientation

KOP 10 represents a close-range view of the project area from the bicycle trail near Vista Point, a public rest area in Marin County at the northeast end of the Bridge. The view is toward the northwest across U.S. 101 and includes the northbound highway travel lanes in the foreground, yellow pylons and the concrete median barrier in the middle ground, and the Marin Headlands in the background. **Figure 18** depicts a photo-simulation of the proposed project from this location.

Landscape Unit

This KOP is located in the Fort Baker landscape unit.

Viewer Groups

This viewpoint represents a typical view experienced by visitors to the Marin Headlands.

Existing Visual Quality/Character

This KOP is dominated by the contrasting nature of the Marin Headlands and U.S. 101. From this location along the Vista Point bicycle trail, a viewer is confronted with a flat and expansive multi-lane highway beyond which rise hills that begin sloping upward at the highway's edge. As is the case for other KOPs evaluated in this VIA, another notable visual characteristic of this KOP is the continuous movement of passing automobiles at varying degrees of speed and density. The existing yellow pylons and fixed concrete barrier are not highly noticeable features of the view.

The view from this KOP is not unique to this area, and is not as scenic as other views available in the general vicinity. Nevertheless, the rolling hills at the highway's edge and the manner in which the highway follows the natural contour landscape result in a moderately unified and intact view with a moderate level of visual quality.



KOP 10, Bicycle Trail Near Vista Point Looking Northwest (Existing)



KOP 10, Bicycle Trail Near Vista Point Looking Northwest (Simulation)

Proposed Project Features

Project features visible in this KOP include the proposed MMB.

Change to Visual Quality/Character

Visual Dominance: Implementation of the proposed project would result in installation of the MMB in place of the collection of yellow pylons and fixed concrete barrier that are currently used to separate opposing directions of traffic along this portion of U.S. 101. Given that the proposed MMB would be the same height as the fixed barrier, the visual dominance of the median barrier at this location would not increase as a result of project implementation. The visual bulk of the median barrier at the location where the pylons currently exist would increase slightly relative to existing conditions, but the barrier would reduce the visual clutter associated with the pylons. Also, the solid surface associated with the MMB would be very close in color to the color of the highway, and would be subordinate to other features of the view, especially compared to the form and color of the Marin Headlands in the background.

View Obstruction: The proposed MMB would be placed at the location of the existing fixed median barrier. As in the case of the fixed barrier, the new barrier would obstruct views of a portion of the southbound highway lanes. However, the level of obstruction would remain the same under the proposed project relative to existing conditions, given that the dimensions of the MMB would be consistent with the dimensions of the fixed barrier. Under the proposed project, the portion of the highway currently divided by the yellow pylons would be divided by the MMB, and the MMB would partially block views of a portion of the southbound highway lanes. However, no views of any notable landscape features or vistas would be obstructed.

Visual Compatibility: Project features visible from this KOP would be highly compatible with existing features of the view, given that the existing fixed barrier would be replaced with a barrier of similar character and dimensions. The visual character of the portion of highway where the MMB would replace the yellow pylons would not be substantially altered by the MMB, given that similar barrier structures are already present in adjacent areas.

Overall Visual Quality: Under the proposed project, motorists would continue to see the highway, median barrier and other moving vehicles in the view, all of which would be noticeable but not prominent from this vantage point. However, because the scenery nearby is notable, this view would continue to be intact, unified and vivid. Overall visual quality would continue to be moderate.

Resulting Visual Impact: Overall change in viewer response and visual character would be negligible. The resulting visual impact would be low (less than significant).

KOP 11 – Southeastward View from Bicycle Trail Near Vista Point**Orientation**

KOP 11 represents a close-range view of the project area from the bicycle trail near Vista Point, a public rest area in Marin County at the northeast end of the Bridge. The view is toward the southeast across U.S. 101 and includes the northbound travel lanes in the foreground. The

yellow pylons and southbound travel lanes are visible in the foreground, while the Bridge towers and the Presidio are visible in the distance. **Figure 19** depicts a photo-simulation of the proposed project from this location.

Landscape Unit

This KOP is located in the Fort Baker landscape unit.

Viewer Groups

This viewpoint represents a typical view experienced by visitors to the Marin Headlands.

Existing Visual Quality/Character

Various objects compete for the attention of a viewer at this location, including the Bridge's two suspension towers, its suspension cables, a series of lamp posts, surrounding hillsides, the asphalt roadway and the vehicles that travel upon it. However, though the Bridge towers are located in the view's middleground, they monopolize the viewer's attention more than foreground objects. Their distinctive form draws the eye toward them, though the expansiveness of the roadway is also prominent. Other objects in the view are noticeable, but they do not dominate the field of view.

This view presents a series of fragmented physical features. Though the Bridge towers are prominent, from this vantage point, they are somewhat obstructed by a hillside in the foreground. Though the hillside in the foreground is prominent, it is also fragmented from the surrounding topography, and the hilly landscape in the background is partially obstructed from view by various objects. This is an overall moderately unified and intact view with a moderate level of visual quality.

Proposed Project Features

Project features visible in this KOP include the proposed MMB.

Change to Visual Quality/Character

Visual Dominance: Implementation of the proposed project would result in installation of the MMB in place of the collection of yellow pylons that are currently used to separate opposing directions of traffic along this portion of U.S. 101. The visual bulk of the median barrier at the location where the pylons currently exist would increase slightly relative to existing conditions, but visual clutter associated with the pylons would be reduced. The solid surface associated with the MMB would be very close in color to the color of the highway, and would be subordinate to other features of the view, especially compared to the various other physical features visible from this KOP.

View Obstruction: Under the proposed project, the portion of the highway currently divided by the yellow pylons would be divided by the MMB, with a subsequent partial blockage of views of a portion of the southbound highway lanes. However, no views of any notable landscape features or vistas would be obstructed.

Visual Compatibility: The visual character of the portion of highway where the MMB would replace the yellow pylons would not be substantially altered by the MMB, given that similar



KOP 11, Bicycle Trail Near Vista Point Looking Southeast (Existing)



KOP 11, Bicycle Trail Near Vista Point Looking Southeast (Simulation)

barrier structures are already present in adjacent areas. The project would be highly compatible with its surroundings.

Overall Visual Quality: After project implementation, users of the bicycle trail would continue to see the highway and moving vehicles in the view, though views of a portion of the southbound lanes would be blocked by the MMB. However, no notable or scenic features would be affected. The most visually attractive elements of the view, including the Bridge towers and surrounding natural landscape, would continue to attract the most attention from viewers. Therefore, this view would continue to be intact, unified and vivid, and overall visual quality would continue to be moderate.

Resulting Visual Impact: Overall change in viewer response and visual character would be negligible. The resulting visual impact would be low (less than significant).

KOP 12 – Southward View from Vista Point

Orientation

KOP 12 represents a close-range view from Vista Point, as experienced by tourists and recreational users in Marin County on the north side of the Bridge. The view is toward the southwest across the Bridge span. The Marin Headlands and the Presidio are visible from this vantage point. **Figure 20** depicts a photo-simulation of the proposed project from this location.

Landscape Unit

This KOP is located in the Fort Baker landscape unit.

Viewer Groups

This viewpoint represents a typical view experienced by visitors to the Marin Headlands.

Existing Visual Quality/Character

From this vantage point, viewers have an excellent view of the dramatic physical interaction between the Bridge and the natural landscape. The Bridge towers, roadbed and supporting structure are all visible, and the adjoining hill slopes of the Marin Headlands, the Presidio and the Bay waters frame the Bridge. Automobile traffic on the Bridge is visible, but due to the viewer's distance from the roadway, it is not a dominant feature and attracts less attention than other features.

The lines, forms and colors of natural and human-made objects in this view compose a complete and memorable view from this location. In this setting, viewers enjoy an intact, unified and unobstructed view of the area; they can observe the harmonious interplay between the Bridge and the surrounding landscape. This is a view with outstanding visual quality.

Proposed Project Features

Project features visible in this KOP include the proposed MMB.



KOP 12, Vista Point Looking South (Existing)



KOP 12, Vista Point Looking South (Simulation)

Change to Visual Quality/Character

Visual Dominance: From this vantage point, the proposed MMB would be visible as a thin light-colored line running down the center of the roadway. The MMB's thin width and low height relative to the grand scale of the Bridge and sheer bulk of the Marin Headlands would relegate the MMB to a subordinate role in the view from this KOP.

View Obstruction: The portion of the MMB located closest to the viewer would be partially obstructed by the Bridge's pedestrian walkway railing, to an extent that would render the MMB almost indiscernible to the viewer. Further away from the viewer, the MMB becomes clearly visible to the viewer as it runs along the center of the roadway. Also, the BTM would be visible occasionally as it works its way along the Bridge's median. However, no views of any notable landscape features or vistas would be obstructed by these features.

Visual Compatibility: The visual character of the portion of highway where the MMB would replace the yellow pylons would not be substantially altered, given that similar barrier structures are already present in adjacent areas. The project would be highly compatible with its surroundings.

Overall Visual Quality: This KOP presents to viewers an image that is impressive for the color, scale and form of the Bridge, the Marin Headlands, the Bay waters and the Presidio. The location also offers an opportunity to observe a substantial portion of the Bridge's support structure, which is an element that attracts the attention and interest of viewers. The outstanding quality of this view would not be compromised by the proposed project, given that the MMB would not be highly noticeable from this location.

Resulting Visual Impact: Overall change in viewer response and visual character would be negligible. The resulting visual impact would be low (less than significant).

KOP 13 – Northward View from Marin Headlands***Orientation***

KOP 13 represents an elevated view of the northernmost portion of the Bridge and U.S. 101 from the Marin Headlands as experienced by recreational users and tourists. This KOP is located along Hendrik Point Trail, northwest of the Bridge. The view is toward the north and includes the proposed BTM storage site within the existing U.S. 101 median, and the entrance to the Waldo Tunnel is visible in the distance. **Figure 21** depicts a photo-simulation of the proposed project from this location.

Landscape Unit

This KOP is located in the Marin Headlands landscape unit.

Viewer Groups

This viewpoint represents a typical view experienced by visitors to the Marin Headlands.



KOP 13, Marin Headlands Looking North (Existing)



KOP 13, Marin Headlands Looking North (Simulation)

Existing Visual Quality/Character

This KOP illustrates a setting where the Bridge structure is not the dominant feature in the landscape. From an overlook trail in the Marin Headlands, this view is dominated by a series of lushly vegetated, rounded slopes in the foreground, with buildings at Fort Baker, San Francisco Bay waters and the Town of Belvedere's peninsula in the background. The northern terminus of the Bridge is visible below, its elevated roadway giving way to the at grade surface of U.S. 101 winding its way toward the Waldo Tunnel in the background. Automobile traffic is visible below, but due to the viewer's distance from the roadway, it is not a dominant feature.

In this view, human-made objects do not overpower surrounding landforms, but instead accede to the land's contours. The Bridge terminus section and continuing portion of U.S. 101 gently wind through the landscape and the low rising buildings of Fort Baker nestle in a depression in the land. This is an intact and unified view with a high level of visual quality.

Proposed Project Features

Project features visible in this KOP include the proposed MMB and the proposed BTM station.

Change to Visual Quality/Character

Visual Dominance: From this vantage point, the proposed MMB would be visible as a thin light-colored line running down the center of the roadway. The MMB's thin width and low height relative to the substantial bulk of the surrounding topography, would relegate the MMB to a subordinate role in the view from this KOP. From this KOP, even the BTM storage area would barely be discernable, given the long distance from it to the viewer's location.

View Obstruction: The BTM storage site and the MMB would barely be visible from this location. No views of any notable landscape features or vistas would be obstructed by the MMB or the BTM storage site.

Visual Compatibility: The visual character of the portion of highway where the MMB would replace the yellow pylons would not be substantially altered, given that similar barrier structures are already present in adjacent areas. The project would be highly compatible with its surroundings.

Overall Visual Quality: This KOP presents viewers an image that is impressive for the rounded forms of the Marin Headlands and the varied texture of the vegetation on the hillsides in the foreground and background, and the waters of San Francisco Bay visible in the middleground provide a complementary change of color and texture to the view. The high visual quality of this view would not be compromised by the proposed project, given that the MMB and BTM storage location would not be highly noticeable from this location.

Resulting Visual Impact: Overall change in viewer response and visual character would be negligible. The resulting visual impact would be low (less than significant).

KOP 14 – Southward View from Marin Headlands

Orientation

KOP 14 represents an elevated view of the Bridge from the Marin Headlands as experienced by recreational users and tourists. This KOP is located along Hendrik Point Trail to the northwest of the Bridge, approximately 500 feet south of KOP 13. The view is toward the southeast over the Bridge and includes San Francisco Bay and downtown San Francisco. **Figure 22** depicts a photo-simulation of the proposed project from this location.

Landscape Unit

This KOP is located in the Marin Headlands landscape unit.

Viewer Groups

This viewpoint represents a typical view experienced by visitors to the Marin Headlands.

Existing Visual Quality/Character

Viewers looking to the southeast from the Hendrik Point Trail experience perhaps the most visually stunning vista in the San Francisco Bay Area. From this elevated vantage point, nearly the entire Bridge span is visible, and its impressive scale is explicitly conveyed to the viewer. The color and majestic, graceful lines contrast with but also complement the forms, colors and textures of the surrounding natural landscape. At this distance, the road surface and automobiles traveling upon it are clearly evident, but are not the focus of the viewer's attention.

From this location, the Bridge and the expansive Bay waters command the viewer's attention in almost equal measure, with other physical features clearly noticeable but not as prominent. The features in this view are highly intact and unified, and visual quality is outstanding.

Proposed Project Features

Project features visible in this KOP include the proposed MMB.

Change to Visual Quality/Character

Visual Dominance: From this vantage point, the proposed MMB would be visible as a thin light-colored line running down the center of the Bridge roadway. The MMB's thin width and low height relative to the substantial scale of the Bridge towers and suspension cables, the wide expanse of San Francisco Bay, the dramatic topography of the Presidio and Twin Peaks and the downtown skyline would relegate the MMB to a subordinate role in the view from this KOP.

View Obstruction: The MMB would barely be visible from this location. No views of any notable landscape features or vistas would be obstructed by the MMB.

Visual Compatibility: The visual character of the portion of highway where the MMB would replace the yellow pylons would not be substantially altered, given that similar barrier structures are already present in adjacent areas. Though it would be a new feature for the Bridge, the MMB's scale would be so minimal that it would not affect the Bridge's visual intactness and unity with the surrounding landscape. The project would be highly compatible



KOP 14, Marin Headlands Looking South (Existing)



KOP 14, Marin Headlands Looking South (Simulation)

with its surroundings and would improve visual conditions by reducing the visual clutter currently associated with the yellow pylons.

Overall Visual Quality: This KOP presents to viewers an excellent example of a harmonious interaction between the built environment and the natural landscape. The presence of the MMB is minimally perceptible to a viewer from this KOP, and the outstanding visual quality of this view would not be compromised by the proposed project.

Resulting Visual Impact: Overall change in viewer response and visual character would be negligible. The resulting visual impact would be low (less than significant).

D. Summary of Project Impacts

The following table provides a concise description of the visual impacts associated with the project for each KOP evaluated in this VIA. Visual quality impacts were discussed as they relate to visual dominance, view obstruction, visual compatibility, and overall visual quality.

Table 1: Summary of Project Impacts				
	Visual Dominance	View Obstruction	Visual Compatibility	Overall Visual Quality Impact
KOP 1	Subordinate	Partial	High	Low
KOP 2: Short Term Scenario	Subordinate	None	High	Low
KOP 2: Long Term Scenario	Subordinate	None	High	Low
KOP 3: Short Term Scenario	Subordinate	None	High	Low
KOP 3: Long Term Scenario	Subordinate	None	High	Low
KOP 4: Short Term Scenario	Subordinate	None	High	Low
KOP 4: Long Term Scenario	Subordinate	None	High	Low
KOP 5	Subordinate	None	High	Low
KOP 6	Subordinate	None	High	Low
KOP 7	Subordinate	None	High	Low
KOP 8	Subordinate	None	High	Low
KOP 9	Subordinate	None	High	Low
KOP 10	Subordinate	None	High	Low
KOP 11	Subordinate	None	High	Low
KOP 12	Subordinate	None	High	Low
KOP 13	Subordinate	None	High	Low
KOP 14	Subordinate	None	High	Low

E. Cumulative Impacts

The proposed project would introduce new and modified permanent physical features to the Bridge area. As discussed in this document, the MMB, a new feature, would not be out of character or visually at odds with existing roadway elements and structures in the vicinity. The level of change to visual quality and character would be minor, minimizing any potential for considerable contribution to cumulative impacts. The BTM, also a new feature, would resemble

a cargo truck in size and shape, similarly to those that travel daily across the Bridge. The proposed new toll plaza modifications would also not be out of character with the existing toll plaza structure as architectural and aesthetic consistency would be maintained. The proposed project's cumulative impact would be less than significant because proposed physical changes to the area would be minor and consistent with the existing features of the area.

VII. VISUAL MITIGATION

Caltrans and the FHWA mandate that a qualitative/aesthetic approach should be taken to mitigate for 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 that would occur in the project viewshed if the project is implemented. It also constitutes mitigation that can more readily generate public acceptance of the project.

However, given that the proposed project's impacts would be so minimal as to be less than significant, no mitigation measures would be necessary.

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IX. REFERENCES

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