

GOLDEN GATE BRIDGE, HIGHWAY AND TRANSPORTATION DISTRICT

RESOLUTION NO. 2010-015

**CERTIFYING THE FINAL ENVIRONMENTAL IMPACT REPORT,
ADOPTING FINDINGS OF FACT,
A MITIGATION MONITORING AND REPORTING PROGRAM AND
A STATEMENT OF OVERRIDING CONSIDERATIONS AND
APPROVING A PHYSICAL SUICIDE DETERRENT SYSTEM
ON THE GOLDEN GATE BRIDGE**

February 12, 2010

THIS RESOLUTION IS ADOPTED WITH REFERENCE TO THE FOLLOWING FACTS AND CIRCUMSTANCES, WHICH ARE FOUND AND DETERMINED BY THE BOARD OF DIRECTORS:

WHEREAS, the Golden Gate Bridge, Highway and Transportation District (District) and the California Department of Transportation (Caltrans), the latter as delegate for the Federal Highway Administration, have worked in partnership to prepare a combined Environmental Impact Report and Environmental Assessment and Section 4(f) Evaluation with Finding of No Significant Impact for compliance with the requirements of both the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 *et seq.*) and the National Environmental Policy Act (NEPA) for the Golden Gate Bridge Physical Suicide Deterrent System Project (the Project); and,

WHEREAS, on June 14, 2007, District issued a Notice of Preparation (NOP) of an Environmental Impact Report/Environmental Assessment and Section 4(f) Evaluation (EIR/EA) for the Project to advise interested parties that an environmental study was being prepared to consider the potential impacts of the Project; and,

WHEREAS, a public scoping meeting was held on July 17, 2007, to receive comments regarding the scope of issues to be addressed in the EIR/EA; and,

WHEREAS, in compliance with applicable CEQA requirements, a Draft Environmental Impact Report/Environmental Assessment and Section 4(f) Evaluation (Draft EIR/EA) was prepared and issued for agency and public review and comment on July 8, 2008, for a review period which ended on August 25, 2008; and,

WHEREAS, the District received over 5,000 comments on the Draft EIR/EA and the Project during the Draft EIR/EA comment period; and,

WHEREAS, the District held public meetings on July 22 and 23, 2008, to receive comments on the Draft EIR/EA; and,

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WHEREAS, a Final Environmental Impact Report and Environmental Assessment and Section 4(f) Evaluation with Finding of No Significant Impact (Final EIR/EA), incorporating responses to comments on the Draft EIR/EA was issued on January 22, 2010; and,

WHEREAS, the Final EIR/EA consists of the text of the Draft EIR/EA, as amended, comments received on the document and responses to comments contained in the Final EIR/EA, items included in attachments to this resolution, and all documents and resources referenced and incorporated by reference in the Final EIR/EA; and,

WHEREAS, the Final EIR/EA has been completed in compliance with CEQA, NEPA, the Guidelines for Implementation of the California Environmental Quality Act (14 Cal. Code of Regs. Section 15000 *et seq.*) (State CEQA Guidelines) and local procedures adopted pursuant thereto; and,

WHEREAS, on January 19, 2010, Caltrans, as delegee of the Federal Highway Administration issued a Finding of No Significant Impact for the Project under NEPA; and,

WHEREAS, the Board of Directors (Board) of the Golden Gate Bridge, Highway and Transportation District considered the Final EIR/EA at its meeting of February 12, 2010; and,

WHEREAS, the Final EIR/EA identified certain significant and potentially significant adverse effects on the environment that would be caused by the implementation of the Project as proposed; and,

WHEREAS, the Final EIR/EA outlined various mitigation measures that would substantially lessen or avoid certain of the Project's significant effects on the environment, as well as alternatives to the Project, which would provide some environmental advantages; and,

WHEREAS, the District is required, pursuant to CEQA, to adopt all feasible mitigation measures or feasible project alternatives that can substantially lessen or avoid any significant environmental effects of a proposed project; and,

WHEREAS, Public Resources Code section 21081, subdivision (a), requires a public agency, before approving a project for which an EIR/EA has been prepared and certified, to adopt findings specifying whether mitigation measures and, in some instances, alternatives discussed in the EIR/EA, have been adopted or rejected as infeasible; and,

WHEREAS, Sections I through IX of Exhibit A to this Resolution are a set of Findings of Fact prepared in order to satisfy the requirements of Public Resources Code section 21081, subdivision (a); and,

WHEREAS, as the Findings of Fact explain, the Board, reflecting the advice of District Staff and extensive public input, acting at its meeting of October 10, 2008, adopted Alternative 3 as the Preferred Alternative; and,

WHEREAS, in taking this course, the Board has acted in conformance with CEQA in considering project mitigations and/or alternatives as a means of substantially lessening or avoiding the environmental effects of the Project; and,

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WHEREAS, all but two significant and potentially significant environmental effects associated with the Project, as approved, can either be substantially lessened or avoided through the inclusion of mitigation measures proposed in the Final EIR/EA; and,

WHEREAS, most of the significant environmental effects of the project can be fully avoided (i.e. rendered less-than-significant by the adoption of feasible mitigation measures); and,

WHEREAS, the Board in approving the project as proposed intends to adopt all mitigation measures set forth in the Findings of Fact; and,

WHEREAS, those significant effects that cannot be avoided or substantially lessened by the adoption of feasible mitigation measures will necessarily remain significant and unavoidable; and,

WHEREAS, the Board has determined, for reasons set forth in the Findings of Fact, that Alternative 3, the Net System, would be feasible and environmentally superior to the other proposed alternatives, and that none of the other alternatives addressed in the Final EIR/EA would be feasible and environmentally superior to the modified project; and,

WHEREAS, Public Resources Code section 21081, subdivision (b), and CEQA Guidelines section 15093 require the District to adopt a "Statement of Overriding Considerations" before approving a project with significant unavoidable environmental effects; and,

WHEREAS, the Board desires, in accordance with CEQA, to declare that, despite the occurrence of significant unavoidable environmental effects associated with the project as mitigated and adopted (Alternative 3, the Net System), there exist certain overriding economic, social and other considerations for approving the project that the Board, in its legislative capacity, believes justify the occurrence of those impacts and render them acceptable; and,

WHEREAS, Section X of Exhibit A attached hereto is a Statement of Overriding Considerations specifying the economic, social and other benefits that render acceptable the significant unavoidable environmental effects associated with the mitigated project; and,

WHEREAS, the Board recognizes the District's obligation, pursuant to Public Resources Code section 21081.6, subdivision (a), to ensure the monitoring of all adopted mitigation measures necessary to substantially lessen or avoid the significant effects of the project; and,

WHEREAS, Exhibit B to this Resolution is the Mitigation Monitoring and Reporting Plan prepared in order to comply with § 21081.6, subdivision (a); now, therefore, be it

RESOLVED by the Board of Directors (Board) of the Golden Gate Bridge, Highway and Transportation District, as follows:

1. In approving this Resolution, the Board certifies that the Final EIR/EA has been completed in compliance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines; and,

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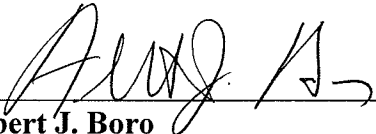
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2. In approving this Resolution, the Board hereby finds that it has independently reviewed and analyzed the Final EIR/EA and considered the information contained therein and all comments, written and oral, received prior to approving the Resolution; and,
3. In approving this Resolution, the Board hereby finds that the Final EIR/EA reflects the District's independent judgment and analysis, as required by Public Resources Code Section 21082.1; and,
4. In approving this Resolution, the Board adopts Sections I through IX of Exhibit A attached hereto in order to satisfy its obligations under Public Resources Code sections 21002 and 21081, subdivision (a) regarding the changes or alterations made to the Project to mitigate or avoid environmental impacts; and,
5. In approving this Resolution, the Board adopts Section X of Exhibit A attached hereto in order to satisfy its obligations under Public Resources Code sections 21081, subdivision (b), and CEQA Guidelines section 15093, which requires the decision-making body to balance, as applicable, the economic, social, legal and other benefits of a proposed project against the unavoidable environmental effects associated with the project; and,
6. In approving this Resolution, Board adopts Exhibit B attached hereto in order to satisfy its obligations under Public Resources Code section 21081.6, subdivision (a) to ensure the monitoring of all adopted mitigation measures necessary to substantially lessen or avoid the significant effects of the project; and,
7. Based on and in consideration of all of the foregoing, the Board hereby adopts Alternative 3, the Net System, as described in the Final EIR/EA, along with, and conditioned by, the mitigation measures, which are described in the Findings of Fact attached as Exhibit A and reflected in the Mitigation Monitoring Plan attached hereto as Exhibit B, which shall be incorporated into and be a part of the approved alternative; and,
8. The Board of Directors hereby directs District staff to file with the County Clerks of San Francisco and Marin Counties and the Office of Planning and Research a Notice of Determination commencing the 30-day statute of limitations for any legal challenge to the project based on alleged non-compliance with CEQA.

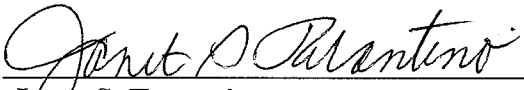
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ADOPTED this 12th day of February 2010, by the following vote of the Board of Directors:

- AYES (16):** Directors Brown, Chu, Cochran, Dufty, Elsbernd, Grosboll, McGlashan, Moylan, Newhouse Segal, Pahre, Snyder, Sobel and Stroeh; Second Vice President Eddie; First Vice President Reilly; President Boro
- NOES (0):** None
- ABSENT (3):** Directors Campos, Kerns and Sanders



Albert J. Boro
President Board of Directors

ATTEST: 

Janet S. Tarantino
Secretary of the District

- Attachments Pertaining to Resolution No. 2010-015:
Exhibit A – Findings of Fact and Statement of Overriding Considerations
Exhibit B – Mitigation Monitoring and Reporting Plan

FINDINGS OF FACT AND
STATEMENT OF OVERRIDING CONSIDERATIONS

I. INTRODUCTION

The Golden Gate Bridge, Highway and Transportation District (District) proposes to implement the Golden Gate Bridge Physical Suicide Deterrent System (Project) at the Golden Gate Bridge (Bridge). The purpose of the Project is to reduce the number of injuries and deaths associated with individuals jumping off the Golden Gate Bridge. The proposed Project would erect a physical barrier to deter individuals from jumping off the Bridge.

The Final Environmental Impact Report and Environmental Assessment and Section 4(f) Evaluation With Finding of No Significant Impact (Final EIR/EA) prepared for the Project addresses the environmental effects of installing a physical Suicide Deterrent System on the Golden Gate Bridge. The District is the Lead Agency with primary responsibility for preparing and certifying the documents necessary to comply with the requirements of the California Environmental Quality Act (CEQA). The lead agency for the environmental analysis of the proposed Project under the National Environmental Policy Act (NEPA) is the California Department of Transportation (Caltrans), as delegate for the Federal Highway Administration (FHWA).

These Findings of Fact and Statement of Overriding Considerations (Findings) fulfill the District's responsibilities under CEQA in its consideration of the Final EIR/EA. Under CEQA, for each significant environmental effect identified in an Environmental Impact Report for a proposed project, the approving agency must issue a written finding reaching one or more of three allowable conclusions:

- “[c]hanges or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.” (§21081[a](2).)
- “[s]uch changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.” § (§21081[a](2).)
- “[s]pecific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or Project alternatives identified in the final EIR.” (§ (§21081[a](2).)

This document presents the District Board's findings of fact, as required by CEQA, and cites substantial evidence in the record in support of each of these findings, presenting an explanation to supply the logical steps between the finding and the facts in the record. (State CEQA Guidelines, Section §15091). These findings include a description of the Golden Gate Bridge Physical Suicide Deterrent System Project, findings concerning potentially significant environmental impacts and mitigation strategies to address such impacts, a discussion of cumulative and growth-inducing impacts, and a statement of overriding considerations.

CEQA also requires that the lead agency adopt mitigation measures or alternatives, where feasible, to avoid or substantially reduce significant environmental impacts that would otherwise occur. Project modification or alternatives are not required, however, where they are infeasible or where the responsibility for modifying the Project lies with some other agency. (State CEQA Guidelines § 15091, subd. [a][3][c].) Public Resources Code Section 21061.1 defines “feasible” to mean “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.” State CEQA Guidelines Section 15364 adds another factor: “legal” considerations. (See also *Citizens of Goleta Valley v. Board of Supervisors* [“Goleta II”] [1990] 52 Cal.3d 553, 565.)

The State CEQA Guidelines do not define the difference between “avoiding” a significant environmental effect and merely “substantially lessening” such an effect. The District must therefore glean the meaning of these terms from the other contexts in which the terms are used. Public Resources Code Section 21081, on which State CEQA Guidelines Section 15091 is based, uses the term “mitigate” rather than “substantially lessen.” The State CEQA Guidelines therefore equate “mitigating” with “substantially lessening.” Such an understanding of the statutory term is consistent with the policies underlying CEQA, which include the policy that “public agencies should not approve Projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such Projects.” (Public Resources Code, § 21002).

For purposes of these Findings, for significant impacts that are mitigated but still remain significant even with the implementation of identified mitigation measures, the finding is that the impact is lessened but still significant and unavoidable.

Although the State CEQA Guidelines Section 15091 requires only that approving agencies specify that a particular significant effect is “avoid[ed] or substantially lessen[ed],” for purposes of clarity these Findings in each case specify whether the effect in question has been reduced to a level that is less than significant, or has been substantially lessened but remains significant.

II. PROJECT DESCRIPTION

The Project is located on the Golden Gate Bridge, which connects the City and County of San Francisco and Marin County. The Bridge extends from the Marin abutment to the San Francisco abutment. The Bridge connects Highway 101 in San Francisco with Highway 101 in Marin but is not itself part of Highway 101. The Project covers a distance of 1.7 miles. Within the limits of the proposed Project, the roadway is a six-lane undivided highway with four 10-foot and two 11-foot wide lanes, featuring a 10-foot sidewalk on both sides of the roadway. The Project proposes to construct a physical suicide deterrent system on the Bridge that reduces the number of injuries and deaths associated with individuals jumping off the Bridge. The specific need for the Project stems from the fact that the 4-foot height of the outside handrail does not sufficiently deter individuals, who are not using the sidewalk for its intended purposes, from climbing over the outside handrail and jumping from the Bridge. There is no other physical barrier beyond the outside handrail preventing an individual from jumping, once the outside handrail is scaled.

The selected Project would construct a horizontal net approximately 20 feet below the sidewalk and approximately 5 feet above the bottom chord of the exterior main truss of the Bridge. Use of

such net installations for suicide prevention on other facilities has resulted in greatly reduced fatalities and suicide attempts. Should individuals jump, they would be expected to survive the fall into the net and could be rescued. The net would extend horizontally approximately 20 feet from the Bridge and be covered with stainless steel netting incorporating a grid between 4 and 10 inches. The horizontal support system would connect directly to the exterior truss and be supported by cables back to the top chord of the truss. The support system for the netting would include cables that would pre-stress the netting to help keep it taut and not allow the wind to whip the netting. The horizontal net would consist of independent 25-foot sections that can be rotated vertically against the truss to allow the maintenance travelers to be moved. While the steel horizontal support system would be painted International Orange to match the color of the existing Bridge structure, the net would be unpainted and uncoated stainless steel. Rather than extending the net around the 300-foot length of the concrete North Anchorage Housing, a vertical barrier, painted International Orange, would be installed. The length of the 300-foot vertical barrier would represent approximately 3 percent of the 1.7-mile Bridge span.

The cost estimate for the Project is \$50 million (2013). This includes the cost of final design; construction of the net, including replacing the rolling maintenance scaffolds on the Bridge in order to accommodate the net; construction engineering; environmental monitoring during construction; the purchase of a large “snooper” truck with an extendable arm for retrieving individuals from the net; and the purchase of a small, sidewalk-sized snooper truck to remove litter and debris from the net. The Project is included in the Metropolitan Transportation Commission’s (MTC) Transportation Improvement Program (TIP) for \$50 million in donations and non-profit funds for design and construction in fiscal years 2011 and 2013 respectively.

III. CEQA PROCESS

As required by CEQA, a Notice of Preparation (NOP) with an Initial Study Checklist was mailed on June 14, 2007 to elected officials and local, state, and federal agencies having jurisdiction for discretionary approvals within the Project corridor. The 30-day review period for the NOP ended on July 16, 2007. During this period, comments and input with respect to the scope and content of the information to be included in the environmental document were solicited from state and local government agencies that may issue permits or other approvals for the implementation of the proposed Project. Input was also sought from private organizations and individuals that may have an interest in the Project.

On July 8, 2008, the District issued the Draft EIR/EA for public review period that ended on August 25, 2008. Participating elected officials, agency representatives, libraries, stakeholder groups, and members of the public were sent copies of the Draft EIR/EA and companion materials, including a compact disc (CD) of the technical studies prepared for the Project and a *Citizen’s Guide to the Environmental Document*.

Display advertisements noticing the release of the Draft EIR/EA and the public meetings were run in English, Spanish, and Chinese in the *San Francisco Chronicle* (San Francisco Zones), and in English and Spanish in the *San Francisco Chronicle* (North Bay Zone). Display advertisements regarding the Draft EIR/EA and public meetings were also run in the *Marin Independent Journal*, *Santa Rosa Press Democrat*, *Napa Valley Register*, *Commuter Times*, *Ukiah Daily Journal*, *Contra Costa Times*, and *San Jose Mercury News*.

Notices of Availability for the Draft EIR/EA also were mailed to interested individuals, organizations, and agencies. Email notification was sent out to an “email blast” list of hundreds of individuals and organizations.

The Draft EIR/EA was available online at the project website (www.ggbsuicidebarrier.org) in addition to being available at ten libraries in five surrounding counties. Plus, copies of the Draft EIR/EA were provided to any individuals or organizations who requested a copy. Furthermore, a *Citizens' Guide to the Draft Environmental Impact Report/Environmental Assessment* was developed and disseminated which provided an overview of the project and key environmental considerations.

During the formal comment period, which ended on August 25, 2008, a total of 5870 comments were received from the public and agencies. The majority of the comments received expressed personal opinions regarding the proposed Project alternatives. About 25 percent of the comments received expressed personal beliefs regarding suicide. These comments typically either stated that individuals will commit suicide somewhere else if a barrier is built on the Bridge; or they stated that suicide is an impulsive act so a barrier on the Bridge will save lives. Other major areas for which comments were made included traffic and transportation, biological resources, noise and vibration, air quality, and cultural resources.

On January 22, 2010, the District issued the Final EIR/EA for the proposed Project. The Final EIR/EA comprises the revisions to the Draft EIR/EA, dated July 8, 2008, letters received commenting on the Draft EIR/EA, and the Response to Comments (Chapter 4). In accordance with Section 15150 of the State CEQA Guidelines, the Final EIR/EA is incorporated by reference. It is intended that the Board of Directors would consider the Final EIR/EA at a regularly scheduled meeting.

IV. RECORD OF PROCEEDINGS

For purposes of CEQA and the Findings of Fact set forth herein, the record of proceedings for the Board's decision on the proposed Project modifications consists of the following documents:

- The Notice of Preparation of the EIR for the proposed Project
- All public notices issued in conjunction with the proposed Project
- The Draft EIR/EA (dated July 8, 2008)
- The Notice of Completion
- All comments submitted by agencies or members of the public during the public comment period on the Draft EIR/EA
- The Mitigation Monitoring and Reporting Plan for the proposed Project
- All findings and resolutions adopted by the District in connection with the proposed Project and all documents cited or referred to therein
- The certified Final EIR/EA for the proposed Project
- All reports, studies, memoranda, maps, and other planning documents relating to the proposed Project prepared by the District, the District's consultants, or responsible or trustee agencies with respect to the District's compliance with the requirements of CEQA, and with respect to District's action on the proposed Project

- All documents submitted to the District by agencies or members of the public in connection with the proposed Project
- Matters of common knowledge to the District, including, but not limited to federal, state, and local laws and regulations.

The custodian of the documents comprising the record of proceedings are held jointly by the Secretary of the District and the District Engineer of the Golden Gate, Bridge, Highway and Transportation District located at the Administration Building, Golden Gate Bridge Toll Plaza, San Francisco, CA.

V. FINDINGS ON LESS THAN SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT IDENTIFIED IN THE EIR

A. Land Use

The Project does not involve any changes in the existing use of the Golden Gate Bridge (Bridge) or the land surrounding the Bridge. Construction of the Project would occur within the permitted area granted to the District by the federal government. The Project would be constructed on the Bridge structure and the project construction staging areas are located on previously established paved and graveled parking areas. No additional road rights-of-way, either permanent or temporary, would be required for this Project.

1. Conflict with Habitat Conservation Plan

As part of the environmental clearance for the seismic upgrade project, a Habitat Protection Plan (Plan) was implemented by the District to minimize or eliminate indirect impacts to common vegetation during construction phases of the seismic upgrade project. The Plan requires the use of buffers to prevent or reduce the effects of disruption in the hydrologic or edaphic (growing) environment of native or non-native vegetation. The Project avoids the areas subject to the Plan and would therefore not be in conflict with the Plan.

2. Physically Divide an Established Community

The Project does not involve any changes in the existing use of the Bridge or the land surrounding the Bridge; thus, the Project would not divide or disrupt an established community.

3. Conflict with Applicable Policies

The Bridge is bordered by the Golden Gate National Recreation Area (GGNRA) and the Presidio. These agencies' management plans contain policies related to public access, transportation, pedestrian, and bicycle access. The Project does not affect the existing uses of the Bridge. The existing uses of the Bridge and the land surrounding the Bridge will not change. Currently the Bridge includes pedestrian and bicycle paths that are part of the Bay Trail alignment (Bay Trail Project, 2007) and provides visual access to the Bay. The construction of the Project would maintain the existing paths and visual access. There would be no change to the paths.

The Bay Plan implemented by the Bay Conservation and Development Commission contains policies related to public access and preservation of existing views. The Bridge currently provides public access with views of the Bay, which will be maintained with implementation of the Project.

B. Recreation

The Project does not involve any changes in the existing use of the Bridge or the land surrounding the Bridge; thus, the Project would not increase the use of existing parks or expand recreational opportunities available on the Bridge.

As documented in the Section 4(f) Evaluation, the Bridge is surrounded by regional parks and facilities. The Project would not affect the continued use of these parks and facilities. Implementation of the Project would, however, affect the recreational experience of users of the Bridge sidewalks.

C. Visual/Aesthetics

1. Substantial Adverse Effect on a Scenic Vista (Views towards the Bridge)

As discussed in Section 2.2, Visual/Aesthetics, of the Final EIR/EA, views towards the Bridge would not be significantly altered by the Project. The net would not be visible from Baker Beach and only marginally visible from the Marin Headlands. It would be somewhat visible from other viewpoints depending on the distance and angle of the view, but the change to the overall views resulting from construction of the Project would not be significant. The major visual components of the Bridge--the towers, suspender ropes, and main cables--would remain the dominant features of the Bridge viewed in the landscape.

The Project would also not affect the panoramic views of the San Francisco skyline and Marin Headlands available from the viewpoints towards the Bridge. Within the overall context of the study area's visual environment, the area of changes would be small. It would appear as a thickening of a horizontal line along the lower edge of the Bridge, which would not block views through the Bridge of the urban and natural elements surrounding the Bridge. The impact would therefore be less than significant.

2. Substantially Damage Scenic Resources

The Bridge connects the primary regional roadways in the Project area – U.S. Highway 101 and State Route 1 – connecting points of land on either side of the entrance to the San Francisco Bay. These two roadways connect approximately 0.6 miles southwest of the Bridge on the San Francisco side, and extend north as a combined road across the Bridge to Marin County. Neither of these roadways is a designated state scenic highway. The Project, therefore, would not affect resources within a state scenic highway, and the impact would be less than significant.

3. *Substantially Degrade the Existing Visual Character*

The major visual components of the Bridge are the main suspension span, suspender ropes and suspension cables, and towers, and the International Orange color. Installation of the Project would not noticeably alter the relationships among these elements and would therefore not substantially degrade the existing visual character of the Bridge.

The relationship of the Bridge to the overall regional landscape would also not be degraded through construction of the Project. The Project would not change the color, materials, or location of the Bridge, which would maintain its relationship within the dramatic coastal backdrop. The features of the Bridge that contribute to its harmonious blending of the natural and built environment would not be altered. Panoramic views within the Project area that include the Bridge would not be degraded. These impacts would therefore be less than significant.

4. *New Source of Light and Glare*

The Project would not introduce new sources of glare. The horizontal netting would be unpainted and uncoated stainless steel and would not be anticipated to create significant daytime glare. Lighting on the Bridge itself will remain unchanged. These impacts would therefore be less than significant.

D. Cultural Resources

1. *Potential to Eliminate Important Examples of the Major Periods of California History or Prehistory*

The Project does not involve any changes in the existing use of the Bridge or the land surrounding the Bridge; thus, the Project will not eliminate potential examples of California history or prehistory. The impact would therefore be less than significant.

2. *Damage Unique Archaeological Resource; Destroy Unique Paleontological Resource or Unique Geologic Feature; Disturb Human Remains*

The Project would be constructed entirely within the right-of-way of the Bridge. The Area of Potential Effect (APE) for cultural resources was determined through consultation with Caltrans. In consultation with Brett Rushing, PQS Archaeologist, it was determined that no archaeological study and therefore, no archaeological APE, would be necessary because the construction of the Project would take place on the Bridge structure and the Project construction staging areas would be located on previously established paved and graveled parking areas. No additional road rights-of-way, either permanent or temporary, would be required for this Project. The impact would therefore be less than significant.

E. Biological Environment

1. *Substantial Adverse Effect on Special Status Species*

Monarch butterfly wintering sites, which are considered sensitive by the California Department of Fish & Game (CDFG), have been documented in the Project area. The

four staging areas within GGNRA lands on the north side of the Bridge have and/or continue to be used for similar activities associated with the Golden Gate Seismic and Wind Retrofit Project and do not border areas potentially used as winter roost sites by monarch butterflies. Therefore, the continued use of these staging areas would not adversely affect a monarch butterfly winter roost site. The fifth proposed staging area within GGNRA lands on the south side of the Bridge in the Presidio is paved and used as a parking lot.

There are no trees within the parking lot and the preferred winter roost trees of monarch butterflies (i.e., eucalyptus and pine) are not present near the location. Given the above, the proposed Project is not expected to have a substantial adverse effect on a monarch butterfly wintering site. Appendix F of the Final EIR/EA contains a determination of no effect and no take for the monarch butterfly and other special-status species documented in the Project area.

2. *Substantial adverse effect on riparian habitat or other sensitive natural community*

The four staging areas within GGNRA lands on the north side of the Bridge are denuded of vegetation and are covered by gravel and compacted dirt. These areas have and/or continue to be used for staging and maintenance activities associated with the Golden Gate Bridge Seismic and Wind Retrofit Project. The fifth proposed staging area within GGNRA lands on the south side of the Bridge in the Presidio is within a paved parking lot. Given the above, and the developed condition of the Bridge, construction related activities would not occur within areas containing vegetation. The impact would therefore be less than significant.

However, the staging areas within GGNRA are located adjacent to well-developed coastal scrub habitat. This plant community is characterized by a dense growth of native species such as coyote brush (*Baccharis pilularis*), California blackberry (*Rubus ursinus*), poison oak (*Toxicodendron diversilobum*), California sagebrush (*Artemisia californica*), arroyo willow (*Salix lasiolepis*), and various lupine species (*Lupinus* sp.), as well as non-native invasive species such as French broom (*Genista monspessulana*), wild radish (*Raphanus sativus*), and fennel (*Foeniculum vulgare*). Based on the CDFG List of California Terrestrial Natural Communities (CDFG, 2003), the coastal scrub habitat bordering the staging areas is not denoted on the list as "high priority for inventory" in the California Natural Diversity Database and thus is not considered a sensitive plant community. Additionally, given that the staging areas are fenced and actively used, they are not part of an expected wildlife movement corridor and their use would not result in habitat fragmentation.

3. *Substantial adverse effect on federally protected wetlands*

As part of the Golden Gate Bridge Seismic and Wind Retrofit Project, a Biological Assessment (October 1995) was prepared (pursuant to the requirements of Section 7 of the federal Endangered Species Act) and a subsequent Biological Opinion (August 1995) was issued by the USFWS. These documents addressed potential impacts from construction activities and use of the staging areas within GGNRA lands on federally listed species and other sensitive biological resources. No federally protected wetlands

were identified on or near the construction staging areas would therefore not result in a significant impact.

4. *Conflict with any Local Policies or Ordinances Protecting Biological Resources*

The Project proposes to construct a physical suicide deterrent system along both sides of the Bridge. Construction-related activities would be limited to the Bridge and to five staging areas, which are denuded of vegetation and are either paved or graveled. The avoidance measures being implemented as part of the Golden Gate Bridge Seismic and Wind Retrofit Project to protect sensitive biological resources bordering and near the staging areas within GGNRA lands would continue to be implemented as part of the proposed Project. The Project would continue the avoidance measures and would therefore not be in conflict with existing District policies protecting biological resources.

5. *Conflict with Habitat Conservation Plan*

As part of the environmental clearance for the seismic upgrade project, a Habitat Protection Plan (Plan) was implemented by the District to minimize or eliminate indirect impacts to common vegetation during construction phases of the seismic upgrade project. The Plan requires the use of buffers to prevent or reduce the effects of disruption in the hydrologic or edaphic (growing) environment of native or non-native vegetation. The Project avoids the areas subject to the Plan and would therefore not be in conflict with the Plan.

VI. FINDINGS ON POTENTIALLY SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT IDENTIFIED IN THE EIR

This section presents in greater detail the Findings with respect to the significant environmental effects of the proposed Project. The section also provides a summary of the evidence of which was used by the District in making the related findings. The evidence presented is drawn from the Notice of Preparation, the Final EIR/EA, the comments on the Draft EIR/EA and responses to those comments, and other evidence presented to the District, including all other information in the administrative record, which are incorporated herein by reference.

The Final EIR/EA identified four environmental impacts for the proposed Project which may be significant. Two of these significant impacts (C.1 and C.2) can be avoided through implementation of the identified mitigation measures, however, even with full implementation of the identified mitigation measures, the proposed Project will result in significant unavoidable impacts on two factors (A.1 and B.1).

A. Visual/Aesthetics

1. *Significant Effect: Substantial Effect on a Scenic Vista (Vistas from the Bridge)*

As the Project would be located beneath the Bridge span, it would have a negligible visual impact to certain views from the Bridge. However, the net would be visible from the sidewalk at the Bridge towers, introducing a horizontal element that would visually widen the base of the Bridge. This would create low visual compatibility with moderate

view blockage from the Bridge, demonstrating an adverse visual impact from this particular view from the Bridge. This would be a significant impact.

a. *Finding:*

1. “Changes or alterations have been required in, or incorporated into, the Project, which avoid or substantially lessen the significant environmental effect as identified in the final EIR.”
2. “Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.”
3. “Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or Project alternatives identified in the final EIR.”

b. *Facts in Support of the Finding:*

The steel horizontal support system for the net system would be painted International Orange to match the color of the existing Bridge structure, the net would be unpainted and uncoated stainless steel to reduce the visual intrusion of the net. The horizontal net system contrasts with the strong verticality of the Bridge but permits unobstructed views across the San Francisco Bay from the Bridge sidewalks. The net would disrupt a small portion of the views towards the San Francisco Bay looking down from the Bridge sidewalks. While these measures would improve the visual compatibility and reduce the view blockage from the Bridge, the adverse visual impact to this particular view from the Bridge would remain significant.

The Memorandum of Agreement (MOA) executed as part of the Section 106 consultation process provides for the photographic recordation of selected existing features of the Bridge (these mitigation measures are discussed in more detail in the following section). While these measures would provide a visual record of the Bridge in context, as well as details of its historic engineering features, contributing elements, and character-defining features, the adverse visual impact to this particular view from the Bridge would remain significant.

c. *With Mitigation the Effects are Found to be:*

Significant Not Significant

Reference: The discussion on visual impacts is included in Section 2.2 of the Final EIR/EA prepared for the Project.

B. Cultural Resources

1. Significant Effect: Demolish or Materially Alter in an Adverse Manner Those Physical Characteristics of a Historic Resource That Convey Its Historic Significance and Justify Its Inclusion in National Register of Historic Places.

Construction of the Project would generally cause a substantial adverse change to the Bridge historic property, which has been determined eligible for listing in the National

Register of Historic Places (NRHP) and is listed in the California Register of Historic Resources (CPHR). The addition of this physical suicide barrier system would involve an adverse material alteration of physical characteristics of the historic resource that (1) convey its historic significance and justify its inclusion in, or eligibility for, the CRHR or NRHP; (2) account for its inclusion in a local register of historical resources or a qualifying historical resources survey; and (3) convey its historical significance and justify its eligibility for inclusion in the CRHR or HRP as determined by the lead agency for purposes of CEQA.

These physical, or direct, adverse changes involve alteration of character-defining features of the Bridge (the stiffening truss). The Project would also cause indirect adverse effects, including introduction of visual elements out of character with the property, change in the character of its use as a historic property, addition of physical suicide barrier systems where none were originally, use of non-historic material (cable netting), as well as alteration of the pedestrian experience on the Bridge. This would be a substantial adverse change in the property, which is a significant impact on the environment.

The integrity of design of the property would be substantially changed by the Project because the Project would introduce a non-historic visual element to the trusses at the sides of the Bridge. Although this construction would not affect most of the materials and workmanship of this structure, the Project would materially alter the stiffening trusses, a character-defining feature of the Bridge. This would be a substantial adverse change in the property, which is a significant impact on the environment.

a. Finding:

1. (X) "Changes or alterations have been required in, or incorporated into, the Project, which avoid or substantially lessen the significant environmental effect as identified in the final EIR."
2. () "Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency."
3. () "Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or Project alternatives identified in the final EIR."

b. Facts in Support of the Finding:

Mitigation measures are proposed to insure that (1) the Bridge is properly recorded through photography, written documentation, and educational/interpretive material; (2) this documentation and educational/interpretive material is appropriately distributed; and (3) other portions of the historic property within the Project study are protected and monitored (see Section 3.3 of the Final EIR/EA). While these measures would ensure that a visual record is provided of the Bridge in context, as well as details of its historic engineering features, contributing elements, and character-defining features, the physical alteration to the historic property from implementation

of the Project would still occur. The impact to the Bridge historic property is therefore significant and unavoidable.

To mitigate the adverse effect of the Project on the historic property a Memorandum of Agreement (MOA) has been executed for the Project in coordination with Caltrans. The MOA stipulates various mitigation activities that will be conducted to address adverse effects this Project would have on the Bridge. The MOA has been approved by the State Office of Historic Preservation. Caltrans will be responsible for insuring that these measures are carried out, including that (1) the Bridge is properly recorded through photography, written documentation, and educational/interpretive material; (2) this documentation and educational/interpretive material is appropriately distributed; and (3) other portions of the historic property within the Project study are protected and monitored. Prior to the start of any work that could adversely affect any characteristics that qualify the Bridge as a historic property, Caltrans shall ensure that the recordation measures specified are completed. Mitigation measures proposed for the Project include the following:

- Large-format (four- by five-inch, or larger negative size) black and white photographs will be taken showing the Bridge in context, as well as details of its historic engineering features, contributing elements, and character-defining features. The photographs will specifically include the existing east and west outside railings, concrete railing at the north pylon (North Anchorage Housing), and exterior trusses of the Bridge. Caltrans will ensure that the photographs will be processed for archival permanence in accordance with Historic American Engineering Record (HAER) photographic specifications.
- The recordation will follow the National Park Service's (NPS) HAER Guidelines, and the report format, views, and other documentation details will be coordinated with the Western Regional Office of the NPS, Oakland, California. Oblique aerial photography will be considered as a photographic recordation option in these coordination efforts. It is anticipated that the recordation of the Bridge will be completed to Level I or Level II HAER-written data standards, and will include archival and digital reproduction of historic images, plans, and drawings.
- Caltrans will ensure that copies of the documentation will be offered to the San Francisco Public Library, Marin County Free Library, Environmental Design Archives (UC Berkeley), Golden Gate National Recreation Area, Presidio Trust, and the Caltrans Transportation Library and History Center at Caltrans Headquarters in Sacramento..
- During the Project approval process, Caltrans will ensure that within one year of Project implementation, the District will complete and submit a National Historic Landmark nomination for the Bridge to the National Historic Landmarks Program at the NPS.
- Caltrans will ensure that an educational brochure will be prepared presenting information on the historic elements of the Bridge affected by the proposed Project, prefaced by an explanation of the need for the barrier installation. The brochure will be made available on-site at the Bridge, Presidio National

Historic Landmark, select Golden Gate National Recreation Area locations, and online at the District Web site (www.goldengate.org) during the construction period.

- Caltrans will ensure that copies of *The Golden Gate Bridge Report of the Chief Engineer*, Volume II (2007) will be provided to libraries and repositories at the San Francisco Architectural Heritage, California Historical Society, San Francisco Public Library, Marin County Free Library, Environmental Design Archives at U.C. Berkeley, GGNRA, Presidio Trust, and Caltrans Transportation Library and Historic Center at Caltrans Headquarters in Sacramento.
- Caltrans will ensure that interpretive signs or display panels will be installed at the Round House Gift Center and the Vista Point to describe the Project for the duration of construction. Signs will incorporate information from the contextual history prepared for the brochure.
- Caltrans will ensure the protection of the remainder of the historic property, as well as the Fort Point National Historic Site, located below the Fort Point Arch component of the Bridge. The District will protect against incidental damage to the remainder of the Bridge historic property and the Fort Point property by hiring an independent Environmental Compliance Monitor (ECM) who will periodically monitor the site during construction and will prepare monthly reports documenting compliance and protection. Caltrans will ensure that these reports will be provided to the District, the State Historic Preservation Officer, and GGNRA, the property owner.

As noted previously, while these measures would provide a visual record of the Bridge in context, as well as details of its historic engineering features, contributing elements, and character-defining features, the physical alteration to the historic property from implementation of the Project would still occur. Therefore, the impact to the Bridge historic property following implementation of these measures remains significant.

c. *With Mitigation the Effects are Found to be:*

Significant Not Significant

Reference: The discussion on cultural impacts is included in Section 2.3 of the Final EIR/EA prepared for the Project.

C. Biological Environment

1. *Significant Effect: Substantial Adverse Effect on Candidate, Sensitive, or Special Status Species*

The proposed Project does not include the development or direct disturbance of plant communities or aquatic habitats. The Bridge is in a developed condition and the proposed staging areas are denuded of vegetation and are covered by gravel and compacted dirt, or paved. However, given the proximity of the proposed staging areas within GGNRA lands to large expanses of coastal scrub habitat, and the known presence of Mission blue

butterfly and the potential presence of special-status plant species within adjacent and nearby areas, the use of the staging areas was examined to determine if the Project could result in the loss of special-status species and the degradation of adjacent habitats. Potential impacts to special-status species and coastal scrub habitat are discussed below.

Mission Blue Butterfly

Mission blue butterfly, a federally Endangered species, is known to occur in areas near the staging areas on the north side of the Bridge. No direct loss of habitat for this species would occur. However, in the absence of the following avoidance measures, the use of the staging areas could result in other types of impacts to this species, which would be a significant impact:

1. Construction-related traffic: vehicular traffic, especially at higher speeds, can collide with and kill or injure flying Mission blue butterflies.
2. Unauthorized intrusion into Mission blue butterfly habitat: Potential intrusion by construction equipment and workers into the coastal scrub habitat bordering the staging areas within GGNRA lands could result in trampling of larval host or adult nectar plants.
3. Dust: the proposed Project does not include grading, vegetation and soil removal, or soil storage, which are often associated within increased dust levels. However, the use of the staging areas within GGNRA lands could result in increased dust levels, which may affect both larval and adult Mission blue butterflies.

Plant Species

Special-Status plant species could occur in areas bordering or near the staging areas within GGNRA lands, such as Franciscan thistle, San Francisco Bay spineflower, blue coast gilia, San Francisco gumplant, marsh microseris, San Francisco owl's clover, and potentially other species. No direct loss of suitable habitat for special-status plant species would occur. However, unauthorized intrusion by construction equipment and workers into the coastal scrub habitat bordering the staging areas could result in trampling of special-status plant species. This would be a significant impact.

Peregrine Falcon

Peregrine falcons, a state Endangered species (and Candidate for Delisting), have been reported using the Bridge year-round from 1989 to the present, with nesting being attempted under the roadway on at least two occasions and the towers being used by non-nesting falcons.

The proposed Project does not include the removal of any potential nesting habitat for the species or barriers to areas potentially used for nesting. However, should an active eyrie (i.e., nest) be present, construction-related activities could result in the abandonment of the eyrie. This would be a significant impact.

2. Substantial Impact: Substantially Interfere with the Movement of any Native Resident or Migratory Species

The use of horizontal netting would be used as part of the physical suicide deterrent system, with which birds could potentially collide and become entangled or otherwise

harmed. The horizontal netting would extend out 20 feet from the Bridge and be located approximately 20 feet below the Bridge sidewalk. The horizontal netting's proximity to the Bridge structure, as well as heavy car and truck traffic, heavy bike and pedestrian traffic on the Bridge's walkways would detract from the likelihood of birds coming in contact with the horizontal netting. However, it is assumed that the use of the horizontal netting could adversely affect various bird species. This would be a significant impact.

As discussed in Section 2.4, Biological Environment, of the Final EIR/EA, an Avian Impact Study was prepared in April 2009 to further evaluate the potential for adverse effects to avian (bird) species from the implementation of the Project. The Avian Impact Study provided existing information regarding bird use of the Bridge and surrounding area and bird collision data for bridges or other similar structures. Bird movement patterns on, under, over, and around the Bridge were documented and developed as a visual model of bird use for specific portions of the Bridge structure. The Avian Impact Study also identified bird behavior adjacent to the footprint of the net system to assess whether the net system would have the potential to cause any changes in their behavior, or cause injury or death, to any birds.

Based on the background research and field surveys, the Avian Impact Study found that the Project would have the potential to adversely affect migrating and nesting birds, as migrating birds could collide with the net, particularly during inclement weather. The study also found that birds could be lured to nest or perch in an inappropriate spot on or adjacent to the net where mortality risk is high.

Nesting Bird Species

The proposed Project does not include the removal of any trees or vegetation potentially used by nesting bird species protected by the California Fish and Game Code and/or the Migratory Bird Treaty Act. However, construction-related activities could still disturb and potentially result in nest abandonment of active bird nests potentially occurring near the staging and construction areas. This would be a significant impact.

Combined findings for C.1. and C.2.

a. Finding:

1. (X) "Changes or alterations have been required in, or incorporated into, the Project, which avoid or substantially lessen the significant environmental effect as identified in the final EIR."
2. () "Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency."
3. () "Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or Project alternatives identified in the final EIR."

b. *Facts in Support of the Finding:*

1) Impacts to Sensitive Species

The proposed Project would use staging areas within GGNRA lands that have been and/or continue to be used to facilitate the Golden Gate Bridge Seismic and Wind Retrofit Project. As part of that Project, a Biological Opinion was issued by the USFWS and measures were implemented to prevent the loss of Mission blue butterfly and its habitat, as well as other sensitive biological resources. The following avoidance measures, which have successfully been implemented as part of the Golden Gate Bridge Seismic and Wind Retrofit Project, would continue to be implemented as part of the proposed Project in order to prevent adverse affects to Mission blue butterfly, special-status plant species, and coastal scrub habitat. Avoidance measures will also be implemented for the peregrine falcon.

Mission Blue Butterfly

- The District will provide specifications for erosion and dust control to the contractor, which will be implemented. Any erosion and dust control plan will be reviewed and approved by GGNRA Natural Resources staff.
- Contractor's vehicles traveling on access roads within GGNRA lands would be restricted to a maximum speed of 20 mph during the period of March 15 to July 4, which is the flight season for the Mission blue butterfly. The contractor will post and enforce this speed limit.
- To prevent the introduction of non-native vegetation or other deleterious materials to GGNRA lands, the District and contractor will inspect all construction equipment prior to accessing the staging areas. If any vegetation or deleterious materials are present, the contractor will decontaminate its equipment with a high-pressure washer and properly dispose of the wastewater and debris prior to entering GGNRA lands.

Plant Species

- A qualified biologist or biologists will be retained by the District prior to the start of construction to act as a biological Environmental Compliance Monitor (ECM), will work in consultation with GGNRA Natural Resources staff and implement and oversee the below activities/measures.
- The biological ECM will flag and stake native vegetation near the staging areas within GGNRA lands located north of the Bridge as "Environmentally Sensitive Areas" and will oversee the contractor's installation of protective fencing around the designated ESA(s). Signs will be installed indicating that the fenced area is "restricted" and that all construction activities, personnel, and operational disturbances are prohibited.
- The biological ECM will prepare and provide worker educational materials that describe the value and importance of the coastal scrub habitat bordering the staging areas and the importance of not disturbing the habitat.
- The biological ECM will conduct regular visits of the staging areas to inspect if any damage to adjacent habitats has occurred, to evaluate if dust control measures need to be implemented or increased, to ensure that erosion control

devices located near native vegetation and ESA(s) are functioning properly, and to evaluate if weed control measures need to be implemented.

- Based on the findings of the site visits, the biological ECM will make recommendations to be implemented regarding weed control, re-vegetation of disturbed areas, and other measures to protect biological resources. Any chemical weed control must be approved by the GGNRA Integrated Pest Management specialist.
- The biological ECM will prepare monthly monitoring reports for the District that will address the effectiveness of the avoidance measures being implemented and identify any other measures to be implemented.
- Prior to the implementation of construction activities occurring during the nesting season of peregrine falcon (typically February through July), the District will consult with the Golden Gate Raptor Observatory (GGRO) to determine if breeding pairs of peregrine falcon are currently nesting in the vicinity of the Bridge and may be disturbed by the proposed Project. This consultation will also serve to determine if surveys for nesting peregrine falcon should be conducted prior to Project implementation. If nesting pairs are identified by the GGRO or by site surveys, then a construction exclusion zone would be established around the active nest. The size of the exclusion zone will be determined by the CDFG and will take into account existing noise levels at the nest location. Construction activities may commence within the exclusion zone only upon determination by a qualified biologist that the nest is no longer active.

2) Impacts to Native or Wildlife Species

Potential impacts could occur to nesting peregrine falcon, other nesting birds, and various bird species from bird collisions. The below avoidance measures would be implemented to address these potential impacts.

- District personnel, and where applicable, in coordination with a qualified avian biologist, the GGNRA Natural Resources staff, or USFWS will conduct observations of the net to determine if bird carcasses are present. These observations will be conducted at least two times per month for the 12 months following Project implementation during the core of the spring and fall bird migration periods from February to May and August to November. These surveys will include observations from the Bridge sidewalk on the east and west sides of the Bridge. Observations will be conducted within three hours of sunrise immediately following a storm or foggy night when collisions with the Bridge structure are most likely. Observers will document the presence of any bird carcasses with photographs and data forms that include the date, time, weather conditions, and location of the observation, and will submit the photographs to biologist staff at GGNRA for identification and interpretation within three days.

If mortality levels are beyond pre-established limits (i.e. greater than 10 native birds of any species per month for one month; or one individual peregrine falcon, two individuals of any other raptor species, or four individuals of other

special status species during one year) additional observations will be made for six months to determine patterns of bird strike, such as the time of day and visibility conditions. In coordination with the CDFG and the USFWS, additional mitigation measures will be designed and implemented, including changes to the netting structure as feasible, to reduce mortality. After these modifications are made, the system will be monitored for six months, including periods where conditions associated with the documented mortality are most likely to be present, or for a period of time determined by the CDFG and the USFWS. If mortality decreased to below the established limits, the changes will be deemed acceptable and monitoring will no longer be required.

- The District will ensure that the horizontal netting does not become an attractive nuisance to nesting birds. The District will ensure that no new stable, wide beams or wind sheltered areas will be created that may be attractive for nesting and that trash and other large objects shall be removed from the net as needed to minimize the attraction for foraging and nesting material or substrates for nesting. The horizontal netting design will also incorporate the largest mesh size possible to reduce the attraction and viability for nests.
- Regular observations of the horizontal netting will be made by trained District personnel or a qualified avian biologist for one year after installation of the net to determine if bird carcasses are present in or on the net and whether these carcasses are juvenile birds that may have fledged from a nest adjacent to or on the Bridge during the first breeding season after construction. These observations will be conducted weekly during the period when nests are most likely to contain young (i.e. the months of February to July) and may be combined with the migration monitoring visits. These surveys will include searching for nests on the Bridge and bird carcasses in the net and photographing any observed, for identification by GGNRA staff within three days. If District personnel are used, a training program for such personnel will be developed by a qualified avian biologist that will document the methods for detecting and photographing nests on the Bridge structure.

If mortality levels are greater than the pre-established limits (i.e. greater than 10 birds of any native species per month for one month; or one individual peregrine falcon, two individuals of any other raptor species, or four individuals of other special status species during one year) in coordination with the CDFG and the Migratory Bird Division of the USFWS, additional mitigation measures will be designed and implemented, including changes to the horizontal netting, as feasible, to reduce mortality. These changes will be implemented prior to the following breeding season (i.e. prior to December of the current year). The modified horizontal netting will be monitored twice per week during the following breeding season (i.e. December to July of the following year). If mortality is reduced to below the levels identified above during this following breeding season, the changes will be deemed acceptable, and further monitoring will not be required. If mortality levels are not reduced below the recommended levels, the District will consult with the

CDFG, USFWS, and GGNRA staff to develop a feasible alternative mitigation strategy.

- Prior to the implementation of construction activities occurring during the nesting season of native bird species, the biological ECM work in consultation with the GGNRA Natural Resources staff and the U.S. Fish and Wildlife Service where applicable and will conduct surveys for nesting birds. The survey area will include potential nesting habitat within and bordering the staging and construction areas, as well as all areas that would be subject to elevated construction-related noise levels. If active nests are found, then a construction exclusion zone would be established around the active nest. The size of the exclusion zone will be determined by the CDFG and will take into account existing noise levels at the nest location. Construction activities may commence within the exclusion zone only upon determination by a qualified biologist that the nest is no longer active. The biological ECM will also survey for nesting birds during their regular site visits of the staging areas.

c. *With Mitigation the Effects are Found to be:*

() Significant (X) Not Significant

Reference: The discussion on biological impacts are included in Section 2.4 of the Final EIR/EA prepared for the Project.

VII. FINDINGS REGARDING GROWTH INDUCING AND CUMULATIVE IMPACTS

A. Growth Inducing Impacts

The Project would not induce population growth in the immediate or surrounding areas. The proposed project would add a net structure to the existing bridge to reduce the number of suicides. It would not provide additional roadway capacity or provide access to undeveloped areas. Future growth of the surrounding areas is guided by local plans and policies.

B. Cumulative Impacts

1. Recreation

The proposed project would contribute to cumulative recreational impacts, through the reduction in the field of views from the Bridge, which would alter the recreational experience of pedestrians and bicyclists using the Bridge sidewalks. The Project will not affect land that is currently being used for recreation in the project vicinity. All areas proposed for potential use as construction staging areas are currently being used for similar staging and maintenance activities or parking and are physically separated from recreational uses on surrounding properties. The alteration of the pedestrian's and bicyclist's recreational experience on the Bridge, in the context of the absence of any other impacts to recreational facilities in the project area, would not be considered cumulatively considerable.

2. Cultural Resources

Construction of the Project would cause cumulative adverse effects to the Bridge historic property. Cumulative effects analysis takes into consideration that “adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative” (36 CFR 800.5 (a) (1)). Previous projects at the Bridge, such as the Public Safety Railing Project (2003) and the Seismic Retrofit Project for the Bridge (currently underway) were subject to Section 106 effects analysis and CEQA impacts analysis. The Seismic Retrofit Project includes modification to the outside handrail on the west side of the Bridge between the two main towers and the installation of the wind fairings. No adverse effects to character-defining features, or the qualities that qualify the Bridge for listing in the National Register of Historic Places (NRHP), were identified for either project. The State Historic Preservation Officer (SHPO) concurred with these findings, and the previous determination that the Bridge is eligible for listing in the NRHP remains valid.

Nevertheless, many projects have altered the Bridge property since its construction in 1937, including 1980s and 1990s projects to add a west sidewalk on the North Approach (there was none originally); widen the east sidewalk on the North Approach; replace North Approach concrete guardrails with metal and rehabilitate sidewalk framing, traffic curb, pedestrian railing, and electroliers (light posts); as well as a project in the 1990s that replaced over one mile (6,557 linear feet) of outside handrail on the west side of the Bridge with replicas of the originals. Construction of the Project would, therefore, contribute to an adverse cumulative effect on the Bridge property in consideration of these past projects.

No reasonably foreseeable adverse effects of future projects have been identified. Projects in the planning process include: Moveable Median Barrier (MMB) Project and Cable Restoration Project. The barrier system includes one-foot-wide, 32-inch-high steel clad units filled with high density concrete tightly pinned together to form a semi-rigid, moveable barrier between the center lanes of traffic. The MMB project is undergoing planning, design and environmental review. The Cable Restoration Project will include installation of portions of new main cable exterior wire wrapping, reconditioning and replacing cable shrouds, and painting and caulking. Neither of these projects is anticipated to cause an adverse effect to the Bridge. The MMB project will not require physical modification of character-defining features of the Bridge. The main cable is a character defining feature of the Bridge. Though an adverse cumulative effect was identified for past projects, as discussed above, the Project will not cause an adverse cumulative effect to the Bridge as a historic property when considered along with known future projects.

a. Finding:

1. (X) “Changes or alterations have been required in, or incorporated into, the project, which avoid or substantially lessen the significant environmental effect as identified in the final EIR.”
2. () “Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have

been adopted by such other agency or can and should be adopted by such other agency.”

3. () “Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.”

b. Facts in Support of the Findings:

The measures taken to mitigate adverse effects of the Project on the Bridge historic property are addressed in a Memorandum of Understanding (MOA) which was developed in coordination with Caltrans, State Historic Preservation Office (SHPO), Advisory Council on Historic Preservation (ACHP), the federal cooperating agencies, and other interested parties. The degree of impact to cultural resources will be lessened through the implementation of feasible mitigation identified in the MOA, and, given the lack of impacts from known future projects, the cumulative impacts of the Project are not significant.

Reference: The discussion on cumulative impacts is included in Section 2.7 of the Final EIR/EA prepared for the Project.

VIII. FINDINGS REGARDING PROJECT ALTERNATIVES

Section 15126 of the State CEQA Guidelines state that an EIR must address: “...a range of reasonable alternatives to the Project, or to the location of the Project, which would reasonably attain most of the basic objectives of the Project but would avoid any of the significant effects of the Project, and evaluate the comparative merits of the alternatives.” As discussed in Chapter 1 of the Final EIR/EA, numerous alternatives were considered prior to the development and selection of the alternatives evaluated in the Final EIR/EA.

On March 11, 2005, when the District’s Board approved proceeding with environmental studies and preliminary design work for development of a physical suicide deterrent system on the Bridge, the authorizing resolution stipulated that suicide deterrent system concepts conform to the 11 specific criteria (see Section 1.2, Purpose and Need, of the Final EIR/EA for a listing of these criteria).

A comprehensive review of industry research, design, and experience related to suicide deterrent systems was conducted that included concepts from past studies performed on behalf of the District, existing installations, and suggestions received from the public. A total of 83 concepts were recorded. In order to process these concepts down to those that would be considered technically feasible, they were first evaluated against the District-adopted criteria that established clear thresholds for compliance. These performance criteria were intended to screen ideas that contained an obvious flaw or “fatal” flaw.

The District criteria used to screen or eliminate groups of concepts were chosen based on the ability to establish clear thresholds for compliance with each criterion. For example, Short Fence Systems below 6 feet in height were considered ineffective as a deterrent to climbing based on the ease with which an individual could jump over such a height. Similarly, systems that utilized barbed wire or electric shock transmission would create a hazard to sidewalk users and lead to injury to someone coming in contact with the system. Only those systems considered to have an

obvious negative visual or aesthetic impact (chain link, barbed wire, or enclosure) were eliminated based on aesthetics. When evaluated against the performance criteria, nine groups were removed from further consideration: enclosed walkway, chain link fence, electric fences, barbed wire, short systems, offset barrier area, horizontal bars, laser, and top chord attachment.

During this phase of the Project conceptual designs were evaluated for their performance during high winds to determine which concepts would and would not affect the aerodynamic stability of the Bridge. Meteorological and topographical analyses of wind hazards specifically associated with the Bridge site found that the Bridge could be subjected to winds of up to 100 miles per hour. Very small changes in the shape of the Bridge cross-sections (including the spacing and design of rail and fence elements) can have a significant impact on the Bridge's aerodynamic stability during high winds. Conceptual designs that significantly affected the aerodynamic stability of the Bridge under high winds were eliminated from further consideration, in accordance with the Board's established criterion that mandated maintenance of the aerodynamic stability of the Bridge.

Initial wind tunnel testing was performed to establish basic wind criteria and the aerodynamic stability of the Golden Gate Bridge. This testing was developed around three generic physical suicide deterrent system types, using parametric features impacting Bridge aerodynamic performance (spacing, height, member size and shape, solid ratio, and top treatment). The three generic physical suicide deterrent systems tested were vertical extensions added on to the existing outside handrail, replacing the existing outside handrail, and utilizing nets that cantilever out horizontally. The preliminary wind tunnel testing determined that all three generic suicide deterrent system types were feasible (i.e. met the established aerodynamic performance criteria) and also that the existence of a movable median barrier had little or no impact on the aerodynamic stability of the Bridge. The District's criterion, which requires that the system must not prevent construction of a moveable median barrier on the Bridge, is satisfied by all potential suicide deterrent systems.

Development of Concept Types

After the initial evaluation of the concepts, the four groups of concepts remaining were carried forward to be developed into technically feasible alternatives. These groups included 1) vertical rods, bars, or cables; 2) horizontal rods, bars or cables; 3) horizontal net; and 4) glass systems. Design criteria were developed and architectural considerations identified that would guide the evaluation and development of technically feasible alternatives.

Design criteria were established to define the overall limits and basic forms of physical suicide deterrent system concepts. The design criteria included requirement to ensure the aerodynamic stability of the Bridge, a barrier height range depending on whether the existing outside handrail was retained (12-foot height) or removed (10-foot height), barrier top treatment to impede climbing, and spacing of barrier members (4 inches to 6 inches) in accordance with codes (buildings 4 inches and bridges 6 inches) for pedestrian outside handrails.

Architectural considerations required developing a physical suicide deterrent system that was compatible with the existing structural and ornamental forms, as well as with the exterior and safety railings. Because the predominant forms of the Bridge are oriented either horizontally or

vertically, the primary elements of the physical suicide barrier system were positioned in horizontal or vertical arrays. The other significant aesthetic concern was related to the minimization of effects upon the various view perspectives of the Bridge. These perspectives include driver, pedestrian, and panoramic views. It was determined that any new feature or element must be in visual harmony with the existing Bridge and must minimize impacts to Bridge user view perspectives.

As a result of screening concepts against the identified performance criteria, and by applying the design criteria and architectural considerations discussed above, a total of nine generic concept types were identified. These concepts included three physical suicide barriers using horizontal members, four physical suicide barriers using vertical members, one vertical physical suicide barrier using glass pickets, and one net alternative.

Prior to being considered technically feasible, further design refinements were developed for each concept and additional wind testing was performed as necessary to confirm the satisfactory aerodynamic performance of the Bridge. Following this testing, each concept was further evaluated against the Board-adopted criteria to identify those alternatives that best met these criteria. Based on this evaluation, four of the nine concepts were rejected as infeasible. The five remaining technically feasible concepts are the build alternatives evaluated in the Final EIR/EA. Each build alternative was developed to maintain the symmetry of the Bridge. The outside handrail posts, light posts, suspender ropes, and belvederes would all remain at the current locations. All of the build alternatives evaluated in the Final EIR/EA require the addition of one of two different types of wind devices. The five build alternatives would all be constructed of steel. During the construction phase, all build alternatives would use the same construction staging areas.

Common Design Features of the Build Alternatives

The preliminary analysis resulted in the five build alternatives, all of which would impede the ability of individuals to jump from the Bridge, as well as generally satisfy additional criteria established by the District.

These alternatives consist of:

- Alternative 1A: Add Vertical System to Outside Handrail
- Alternative 1B: Add Horizontal System to Outside Handrail
- Alternative 2A: Replace Outside Handrail with Vertical System
- Alternative 2B: Replace Outside Handrail with Horizontal System
- Alternative 3: Add Net System that Extends Horizontally from Bridge (Preferred Alternative)

During the screening process, the build alternatives were evaluated for their ability to meet the Project's purpose and need, which included the District's criteria. All of the build alternatives generally satisfied the District's criteria (see Section 1.6 and Table 1-1 in the Final EIR/EA, both entitled "Comparison of Alternatives").

Following release of the Draft EIR/EA in July, 2008, individuals and public agency staff provided 5,870 comments regarding the environmental analysis and Project alternatives. After

the close of the public comment period, all comments received were considered by the District. The District's Board discussed the selection of a Preferred Alternative at its October 10, 2008 Board Meeting. At the meeting, District staff gave presentations regarding the comments received on the Draft EIR/EA and the operation, maintenance, and emergency response impacts of the alternatives. Public comment was also heard during the meeting.

Following the presentations and comments, the Board discussed the selection of a Preferred Alternative, noting that the selection was part of the on-going environmental process and was not a definitive final approval of the Project. Directors commented that Alternative 3 was the most humane, aesthetic and visionary approach and an "elegant solution," and recalled that in other locations where a suicide deterrent net system has been installed, there was a marked decrease in suicides and suicide attempts. The deliberation also included a discussion of the costs of the Project and potential funding sources, and it was determined that a Funding Plan would be prepared. The discussion was followed by an action to approve Alternative 3 (Net System), as the Preferred Alternative. The action was approved by Board resolution No. 2008-090.

The Board selection of the Preferred Alternative provided direction for the preparation of responses to comments and Section 106 consultation continued for the Preferred Alternative. For a description of the Section 106 process, refer to Section 2.3.1 of the Final EIR/EA. Some of the public comments received on the Draft EIR/EA suggested that the District consider other colors for the net material. In response to those comments, the District prepared renderings depicting different colors of netting material. Based on these renderings, as well as consultation with the State Historic Preservation Officer (SHPO) and other interested parties following the close of the public comment period, it was determined that the unpainted and uncoated stainless steel net materials would minimize the effects of the proposed Project on cultural resources.

Through consultation with SHPO and the Advisory Council on Historic Preservation (ACHP), it was also determined that at the North Anchorage Housing, the net should be replaced by a vertical barrier (similar to Alternative 1A) along the approximately 300-foot length of the North Anchorage Housing. This design detail is illustrated on Figures 1-29 through 1-31 of the Final EIR/EA.

Environmentally Superior Alternative

CEQA Guidelines (Section 15126.6(e)(2)) require that an environmentally superior alternative be identified among the alternatives considered. The environmentally superior alternative is generally defined as the alternative that would result in the least adverse environmental impacts to the Project site and surrounding area while achieving major Project objectives. If the No-Project (No-Build) Alternative is found to be the environmentally superior alternative, an environmentally superior alternative must be identified among the other alternatives. The No-Build Alternative would not change the existing conditions and thus would avoid impacts as compared to the proposed build alternatives; and hence, it is the environmentally superior alternative. However, although the No-Build Alternative would not result in any physical impacts to the environment, it would fail to meet the purpose and objectives of the Project.

The No-Build Alternative would fail to meet the ultimate purpose of the Project—to reduce the number of injuries and deaths associated with individuals jumping off the Bridge. Each build alternative meets this fundamental purpose of the Project.

While the many of the impacts associated with each build alternative are generally similar, there is a material difference in the category of Visual/Aesthetic impact related Alternatives 1A, 1B, 2A and 2B, on the one hand, and Alternative 3, on the other. Specifically, the Overall Visual Impact to Views of the Bridge for Alternatives 1A, 1B, 2A and 2B is Minimally Adverse to Adverse, while for Alternative 3 it is merely Minimally Adverse to Negligible. Similarly, the Overall Visual Impact to Views from the Bridge for Alternatives 1A, 1B, 2A and 2B is generally Adverse to Strongly Adverse (although for Alternative 2B, one impact is rated “Minimally Adverse”) while the impact for Alternative 3 is rated as Negligible to Adverse. As a result, and due to the fact that such impacts can not be effectively mitigated, Alternatives 1A, 1B, 2A and 2B have an unavoidable significant impact (Substantial Adverse Impact on a Scenic Vista (Views from the Bridge) that Alternative 3 would avoid. In practical terms, Alternatives 1A, 1B, 2A and 2B substantially impair the views from the Bridge. Alternative 3, while visible from certain points on the Bridge, does not interfere with the typical Bridge user’s visual experience.

All of the build alternatives would cause a “substantially adverse change” to the Bridge historic property, which has been determined to be eligible for listing on the National Register of Historic Places. Although mitigation measures are proposed for all of the build alternatives to ensure that a visual record is provided of the Bridge in context, as well as details of its historic engineering features, contributing elements, and character-defining features, the physical alteration to the historic property from the implementation of the build alternatives would still occur. Therefore, all of the build alternatives would have a significant and unavoidable impact on Cultural Resources.

Based on a quantitative analysis of impacts presented in the Final EIR/EA it can be determined that Alternative 3, the Net System, would have the fewest unavoidable significant environmental impacts and would therefore be considered the environmentally superior alternative.

IX. INDEPENDENT REVIEW AND ANALYSIS

Under CEQA, the lead agency must do all of the following: (1) independently review and analyze the environmental document, (2) circulate draft documents that reflect its independent judgment, and (3) as part of the certification of an environmental impact report, find that the report or declaration reflects the independent judgment of the lead agency. (Public Resources Code § 21082.1(C).)

The Draft EIR/EA was circulated and the Final EIR/EA was independently reviewed and analyzed by the District. With the adoption of the findings present here, the District finds that the Final EIR/EA reflects its independent judgment.

X. STATEMENT OF OVERRIDING CONSIDERATIONS

Under CEQA, a lead agency may approve a Project which results in significant effects that are not avoided or substantially lessened by stating the specific reasons to support the Project based on the analysis presented in the Final EIR and/or other information in the record (CEQA Guidelines § 15093). If the specific economic, legal, social, technological or other benefits of the Project outweigh the unavoidable adverse environmental effects, those effects may be considered "acceptable" (CEQA Guidelines § 15093(a)). CEQA requires the lead agency to state, in writing,

the specific reasons for considering a Project acceptable when significant impacts are not avoided or substantially lessened.

In accordance with the requirements of CEQA and the CEQA Guidelines, the District's Board of Directors finds that the mitigation measures identified in the Final EIR/EA and the Mitigation Monitoring Plan, when implemented, will avoid or substantially lessen nearly all of the significant effects identified in the Final EIR/EA. However, certain significant impacts of the Project are unavoidable even after incorporation of all feasible mitigation measures. These significant and unavoidable impacts would result in the area of cultural resources. The construction of the Project will cause a substantial adverse change to the Bridge historic property, by altering a character-defining feature of the Bridge (exterior truss). The Project would also cause indirect adverse effects, including introduction of visual elements out of character with the property; change in the character of its use as an historic property; addition of barrier systems where none were originally; use of non-historic materials (cable netting), and alteration of the pedestrian experience on the Bridge.

The degree of impact to cultural resources will be lessened through the implementation of feasible mitigation measures identified in the *Memorandum of Agreement* (MOA), which stipulates various mitigation activities that will be conducted to address adverse effects this Project would have on the Bridge.

The District Board finds that all feasible mitigation measures identified in the Final EIR/EA within the purview of the District will be implemented with the Project, and that the remaining significant unavoidable effects are outweighed and found to be acceptable due to the following specific economic, legal, social, technological, or other benefits of the Project based upon substantial evidence in the record, including the facts set forth above, the Final EIR/EA, and other evidence in the record, as follows:

- The Bridge's sidewalks are open to the public, and the existing outside railing along the sidewalks is four feet high.
- Individuals have climbed over the existing railing and jumped to their death. Once the railing has scaled, there is no other physical barrier preventing an individual from jumping.
- Despite the District undertaking a wide variety of non-physical measures to deter suicides on the Bridge, there are still approximately two dozen deaths that occur per year from individuals jumping from the Bridge.
- The Project will reduce the number of suicides from individuals jumping from the Bridge.

XI. MITIGATION MONITORING AND REPORTING PLAN

Pursuant to CEQA (Public Resources Code § 21081.6), a Mitigation Monitoring and Reporting Plan (MMRP) will need to be adopted by the District. The MMRP provides the means to track compliance with the mitigation measures developed for the Project. A summary of the mitigation measures is provided in Appendix D of the Final EIR/EA, while the complete MMRP, which details all measures to be implemented, is provided as Exhibit B to the approval resolution.

MITIGATION MONITORING AND REPORTING PLAN

Overview

The California Environmental Quality Act (CEQA) provides that when an agency approves a project for which mitigation is required, that agency must adopt a Mitigation Monitoring or Reporting Program/Plan (MMRP) that ensures the mitigation measures will be implemented (Public Resources Code Section 21081.6[a]). The MMRP includes those mitigation measures identified in the Environmental Impact Report (EIR) that are the responsibility of the agency to implement. CEQA's mandate is rather brief and gives agencies leeway in designing their MMRPs: some agencies focus on monitoring; some on reporting; and some provide both in their programs. Mitigation monitoring or reporting is described in the State CEQA Guidelines Section 15907.

The purpose of the MMRP is to ensure that the mitigation measures adopted by the lead agency, the Golden Gate Bridge Highway & Transportation District (District), are implemented. It does not take the place of those mitigation measures. Pursuant to CEQA, an EIR must identify feasible, "fully enforceable" mitigation measures that can be enacted to reduce or otherwise moderate the significant effects that would otherwise result from the project (Public Resources Code Section 21081.6[b]).

MMRP Approach

The District, as the lead agency under CEQA, has developed this MMRP for the proposed Golden Gate Bridge Physical Suicide Deterrent System Project (the Project). The MMRP contained herein is intended to satisfy the requirements of CEQA as they relate to the Final Environmental Impact Report/Environmental Assessment and Section 4(f) Evaluation with Finding of No Significant Impact (Final EIR/EA) for the proposed project. This MMRP is intended to be used by the District and mitigation monitoring personnel to ensure compliance with mitigation measures during project implementation. Mitigation measures identified in this MMRP were developed in the Final EIR/EA prepared for the proposed project.

The Project's Final EIR/EA presents a detailed set of mitigation measures that will be implemented throughout the lifetime of the project. Mitigation is defined by CEQA as a measure which:

- Avoids the impact altogether by not taking a certain action or parts of an action.
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifies the impact by repairing, rehabilitating, or restoring the impacted environment.
- Reduces or eliminates the impact over time by preservation and maintenance operations during the life of the project.
- Compensates for the impact by replacing or providing substitute resources or environments.

The intent of the MMRP is to ensure the effective implementation and enforcement of adopted mitigation measures and permit conditions. The MMRP will provide for monitoring of construction activities as necessary and in-the-field identification and resolution of environmental concerns.

Monitoring and documenting the implementation of mitigation measures will be coordinated by the Project Manager. Table 1 attached to this report identifies the mitigation measure, the responsible party for the monitoring action, timing of the monitoring action, and the mechanism for verifying compliance with the mitigation measure. The District will be responsible for fully understanding and effectively implementing the mitigation measures contained within the MMRP. The District and Caltrans will bear the primary responsibility for ensuring that the mitigation measures are implemented.

When project work is undertaken by contractors, the pertinent mitigation measures will be included in the terms and conditions of the contracts. The District's construction inspectors will undertake regular inspections of the jobsite to ensure that contractors are implementing the mitigation measures and complying with their contract. The inspectors will be thoroughly familiar with permit conditions and the MMRP. In addition, the inspectors will be familiar with construction contract requirements, construction schedules, standard construction practices, and mitigation techniques. Additionally, the District will hire an Environmental Compliance Monitor (ECM) to assist in compliance efforts. In order to track the status of mitigation measure implementation, field monitoring activities will be documented on compliance monitoring report worksheets. The time commitment of the inspectors will vary depending on the intensity and location of construction. Aided by the attached Table 1, the Project Manager will be responsible for the following activities:

- Onsite, day-to-day monitoring of construction activities.
- Reviewing construction plans and equipment staging/access plans to ensure conformance with adopted mitigation measures.
- Ensuring contractor knowledge of and compliance with the MMRP.
- Verifying the accuracy and adequacy of contract wording.
- Having the authority to require correction of activities that violate mitigation measures. The inspector shall have the ability and authority to secure compliance with the MMRP.
- Acting in the role of contact for property owners or any other affected persons who wish to register observations of violations of project permit conditions or mitigation. Upon receiving any complaints, the Project Manager shall immediately contact the construction representative. The Project Manager shall be responsible for verifying any such observations and for developing any necessary corrective actions in consultation with the construction representative and construction management team.
- Obtaining assistance as necessary from technical experts in order to develop site-specific procedures for implementing the mitigation measures.
- Maintaining a log of all significant interactions, violations of permit conditions or mitigation measures, and necessary corrective measures.

Attachment: Table 1, Mitigation Monitoring and Reporting Plan

Table 1

MITIGATION MONITORING AND REPORTING PLAN

The following is a list of avoidance/mitigation measures. As Alternative 3, the Net System has been identified as the Preferred Alternative, the District and Caltrans will ensure that the appropriate avoidance/mitigation measures are included as a condition of project approval and responsibility assigned to the appropriate party.

Task and Brief Description	Reference	Responsible Party	Task Completed Initial	Task Completed Date	Environmental Compliance Initial	Environmental Compliance Date
VISUAL RESOURCES						
<p>Construction of a physical suicide deterrent barrier is an action that would physically alter the visual appearance of the Bridge. The range of alternatives was developed to minimize the visual changes to the Bridge to the maximum extent possible, while providing feasible concepts that responded to the established criteria. All of the build alternatives would be constructed of steel. Alternatives 1A, 1B, 2A, and 2B would be painted International Orange to match the material and color of the Bridge. While the horizontal support system and vertical barrier under Alternative 3 (Preferred Alternative) would be painted International Orange to match the existing Bridge structure, the net would be unpainted and uncoated stainless steel to minimize visual intrusion.</p> <p>Measures incorporated into the design of Alternatives 1A, 2A and 3 are the use of ½-inch vertical rods which remain consistent with the strong vertical line form created by the Bridge towers, suspender ropes, and light posts. Measures incorporated into the design of Alternatives 1B and 2B are the use of 3/8-inch horizontal cables, which are consistent with the design of the public safety railing and the horizontal line form established by horizon of the blue-green waters of the San Francisco Bay. These alternatives also include transparent panels at the belvederes and around the Bridge towers so as to continue to provide unobstructed viewing opportunities from the sidewalks.</p> <p>Alternative 3 (Preferred Alternative), which includes the horizontal net system and a vertical barrier along</p>	Section 2.2.4	District/Caltrans				

Task and Brief Description	Reference	Responsible Party	Task Completed		Environmental Compliance	
			Initial	Date	Initial	Date
<p>approximately 3 percent of the Bridge length, represents the strongest contrast with the strong verticality of the Bridge but provides unobstructed views across San Francisco Bay from the majority of the Bridge sidewalks. The vertical barrier along the North Anchorage Housing would interrupt motorists' views from the Bridge for approximately 5 seconds and pedestrian views for approximately 1 to 1½ minutes. The net would disrupt a small portion of the views towards the San Francisco Bay looking down from the Bridge sidewalks.</p> <p>The Memorandum of Agreement (MOA) that has been executed as part of the Section 106 consultation process includes photographic recordation of the existing features of the Bridge (see Section 2.3, Cultural Resources).</p>						
CULTURAL RESOURCES						
<p>A MOA has been executed to implement mitigation identified during consultation that will address the adverse effects of the build alternatives on the historic property (36 CFR 800.6 (c), MOA). The MOA stipulates various mitigation activities that will be conducted to address adverse effects this project would have on the Bridge. These measures provide a visual and historic record of the Bridge that will be available to researchers, the public, and users of the Bridge. Caltrans will ensure the completion of additional recordation as identified in the MOA to augment the existing documentation. These measures will include:</p>	Section 2.3.4	Caltrans				
<p>Large-format (four- by five-inch, or larger, negative size) black-and-white photographs will be taken showing the Bridge in context, as well as details of its historic engineering features, contributing elements, and character-defining features. Photographs will specifically include the existing east and west outside railings, concrete railing at the north pylon (North Anchorage Housing), and exterior trusses of the Bridge.</p>	Section 2.3.4	Caltrans				

Task and Brief Description	Reference	Responsible Party	Task Completed		Environmental Compliance	
			Initial	Date	Initial	Date
<p>The recordation will follow the National Park Service's (NPS) HAER Guidelines. The HAER format, views, and other documentation details will be coordinated with the Western Regional Office of the NPS, Oakland, California. Oblique aerial photography will be considered as a photographic recordation option in these coordination efforts. It is anticipated that the recordation of the Bridge will be completed to Level I or Level II HAER-written data standards, and will include archival and digital reproduction of historic images, plans, and drawings.</p>	Section 2.3.4	Caltrans				
<p>Caltrans will ensure that copies of the documentation (including photo documentation processed for archival permanence) will be offered to the San Francisco Public Library, Marin County Free Library, Environmental Design Archives (UC Berkeley), Golden Gate National Recreation Area, (park Archive and Records Center), Presidio Trust, and the Caltrans Transportation Library and History Center at Caltrans Headquarters in Sacramento.</p>	Section 2.3.4	Caltrans				
<p>Caltrans will ensure that within one year of the implementation of the proposed undertaking, the District will complete and submit a National Historic Landmark nomination for the Bridge to the National Historic Landmarks Program at the NPS.</p>	Section 2.3.4	Caltrans				
<p>Caltrans will ensure that an educational brochure will be prepared presenting information on the historic elements of the Bridge being affected by the proposed project, prefaced by an explanation of the need for the barrier installation. The brochure will be made available on-site at the Bridge, Presidio National Historic Landmark, select Golden Gate National Recreation Area locations, and online at the District Web site (www.goldengate.org) during the construction period.</p> <p>Caltrans will ensure that copies of The Golden Gate Bridge Report of the Chief Engineer, Volume II (2007) will be provided to libraries and repositories at the San Francisco</p>	Section 2.3.4	Caltrans				

Task and Brief Description	Reference	Responsible Party	Task Completed		Environmental Compliance	
			Initial	Date	Initial	Date
Architectural Heritage, California Historical Society, San Francisco Public Library, Marin County Free Library, Environmental Design Archives at U.C. Berkeley, GGNRA, Presidio Trust, and Caltrans Transportation Library and Historic Center at Caltrans Headquarters in Sacramento.						
Caltrans will ensure that interpretive signs or display panels will be installed at the Round House Gift Center and the Vista Point to describe the project for the duration of construction. Signs will incorporate information from the contextual history prepared for the brochure.	Section 2.3.4	District				
For the duration of construction, Caltrans will ensure the protection of the remainder of the historic property, as well as the Fort Point National Historic Site, located below the Fort Point Arch component of the Bridge. The District will ensure against incidental damage to the remainder of the historic property and the Fort Point property by hiring an independent Environmental Compliance Monitor (ECM) who will periodically monitor the site during construction and will prepare monthly reports documenting compliance and protection. Caltrans will ensure that these reports will be provided to the District, the SHPO, and the GGNRA, the property owner.	Section 2.3.4	District				
Caltrans will ensure that any damage to the Fort Point National Historic Site resulting from the project will be repaired in accordance with the Secretary of the Interior's Standards for Rehabilitation. Prior to implementation of repairs, Caltrans shall provide proposed repair plans to the GGNRA and the SHPO for review and approval prior to the beginning work to ensure that any damage is repaired in a manner satisfactory to the park and in conformance with the Secretary of the Interior's Standards for Rehabilitation.	Section 2.3.4	Caltrans				
<u>BIOLOGICAL RESOURCES</u>						
Measure 1: A qualified biologist or biologists will be retained by the District prior to the start of construction to	Section 2.4.1; 2.4.2; 2.4.4;	District				

Task and Brief Description	Reference	Responsible Party	Task Completed Initial Date	Environmental Compliance Initial Date
<p>act as a biological Environmental Compliance Monitor (ECM) will work in consultation with GGNRA Natural Resources staff, the USFWS and Caltrans and implement and oversee the below activities/measures.</p> <ul style="list-style-type: none"> ▪ The biological ECM will flag and stake native vegetation near the staging on within GGNRA lands located north of the Bridge as “Environmentally Sensitive Areas” and will oversee the contractor’s installation of protective fencing around the designated ESA(s). Signs will be installed indicating that the fenced area is “restricted” and that all construction activities, personnel, and operational disturbances are prohibited. ▪ The biological ECM will prepare and provide worker educational materials that describe the value and importance of the coastal scrub habitat bordering the staging areas and the importance of not disturbing the habitat. ▪ The biological ECM will conduct regular visits of the staging areas to inspect if any damage to adjacent habitats has occurred, to evaluate if dust control measures need to be implemented or increased, to ensure that erosion control devices located near native vegetation and Environmentally Sensitive Areas (ESAs) are functioning properly, and to evaluate if weed control measures need to be implemented. ▪ Based on the findings of the site visits, the biological ECM will make recommendations to be implemented regarding weed control, re-vegetation of disturbed areas, the need for additional fencing, and other measures to protect biological resources. Any chemical weed control must be approved by the GGNRA Integrated Pest Management specialist. ▪ The biological ECM will prepare monthly monitoring reports for the District that will address the effectiveness of the avoidance measures being implemented and identify any other measures to be implemented. 	2.4.5; 2.6.8			

Task and Brief Description	Reference	Responsible Party	Task Completed		Environmental Compliance	
			Initial	Date	Initial	Date
<p>Measure 2: The District will provide specifications for erosion and dust control to the Contractor, which will be implemented. This erosion and dust control plan will be reviewed and approved by GGNRA Natural Resources staff.</p> <p>Measure 3: Contractor's vehicles traveling on access roads within GGNRA lands would be restricted to a maximum speed of 20 mph during the period of March 15 to July 4, which is the flight season for the Mission blue butterfly. The Contractor will post and enforce this speed limit.</p>	Section 2.4.1; 2.4.2; 2.4.4; 2.6.8	District				
<p>Measure 4: To prevent the introduction of non-native vegetation or other deleterious materials to GGNRA lands, the Contractor will inspect all construction equipment prior to accessing the staging areas. If any vegetation or deleterious materials are present, the Contractor will decontaminate its equipment with a high-pressure washer and properly dispose of the wastewater and debris prior to entering GGNRA lands.</p>	Section 2.4.4; 2.6.8	Contractor				
<p>Measure 5: Prior to the implementation of construction activities the District will implement the following program to assess and avoid any impacts to peregrine falcon. This program will consist of the following activities.</p> <ul style="list-style-type: none"> ▪ Prior to implementation of construction activities occurring during the nesting season of peregrine falcon (typically February through July), the District will consult with the Golden Gate Raptor Observatory (GGRO) and the Santa Cruz Predatory Bird Group to obtain any existing information on the locations of breeding pairs of peregrine falcon potentially using the Bridge. ▪ Focused surveys for nesting peregrine falcons would then be conducted by a qualified biologist to determine if nesting falcons are present in areas potentially affected by project implementation. ▪ If nesting falcons are identified, then a construction exclusion zone would be established around the active eyrie. The size of the exclusion zone will be determined 	Section 2.4.5; 2.6.8	Contractor				
	Section 2.4.4; 2.6.8	District				

Task and Brief Description	Reference	Responsible Party	Task Completed		Environmental Compliance	
			Initial	Date	Initial	Date
<p>by the CDFG and will take into account existing noise levels at the nest location and the type of construction activities proposed near the eyrie.</p> <ul style="list-style-type: none"> Construction activities may commence within the exclusion zone only upon determination by a qualified biologist that the eyrie is no longer active. Alternatively, construction activities potentially affecting peregrine falcons nesting on the Bridge may be conducted outside of the nesting season of the species. <p>Measure 6: Prior to the commencement of construction activities occurring during the nesting season of native bird species (typically February through August), the biological ECM will work in consultation with the USFWS, GGNRA Natural Resources staff and Caltrans and conduct or oversee the following activities.</p> <ul style="list-style-type: none"> The biological ECM will conduct surveys for nesting birds protected by the Migratory Bird Treaty Act and/or California Fish and Game Code. The survey area will include potential nesting habitat within and bordering the staging and construction areas, as well as all areas that would be subject to elevated construction-related noise levels. If an active nest is found, a construction exclusion zone would be established around the active nest. The size of the exclusion zone will be determined by the CDFG and will take into account existing noise levels at the nest location and the sensitivity to noise of the bird species present. Construction activities may commence within the exclusion zone only upon determination by a qualified biologist that the nest is no longer active. The biological ECM will also survey for nesting birds during their regular site visits of the staging areas. 	Section 2.4.3; 2.6.8	District				
<p>Measure 7: District personnel, in coordination with a qualified avian biologist, the GGNRA Natural Resources staff, USFWS and Caltrans, where applicable, will conduct</p>	Section 2.4.3	District				

Task and Brief Description	Reference	Responsible Party	Task Completed Initial Date	Environmental Compliance Initial Date
<p>observations of the net to determine if bird carcasses are present. These observations will be conducted at least two times per month for the 12 months following project implementation during the core of the spring and fall bird migration periods from February to May and August to November. These surveys will include observations from the Bridge sidewalk on the east and west sides of the Bridge. Observations will be conducted within three hours of sunrise immediately following a storm or foggy night when collisions with the Bridge structure are most likely. Observers will document the presence of any bird carcasses with photographs and data forms that include the date, time, weather conditions, and location of the observation, and will submit the photographs to biologist staff at GGNRA for identification and interpretation within three days. If mortality levels are beyond pre-established limits (i.e. greater than 10 native birds of any species per month for one month; or one individual peregrine falcon, two individuals of any other raptor species, or four individuals of other special status species during one year) additional observations will be made for six months to determine patters of bird strike, such as the time of day and visibility conditions. In coordination with the CDFG and the USFWS, additional mitigation measures will be designed and implemented, including changes to the netting structure as feasible, to reduce mortality. After these modifications are made, the system will be monitored for six months, including periods where conditions associated with the documented mortality are most likely to be present, or for a period of time determined by the CDFG and the USFWS. If mortality decreased to below the established limits, the changes will be deemed acceptable and monitoring will no longer be required.</p>				
<p>Measure 8: The District will ensure that the horizontal netting does not become an attractive nuisance to nesting birds. The District will ensure that no new stable, wide</p>	Section 2.4.3	District		

Task and Brief Description	Reference	Responsible Party	Task Completed		Environmental Compliance	
			Initial	Date	Initial	Date
<p>beams or wind sheltered areas will be created that may be attractive for nesting and that trash and other large objects be removed from the net as needed to minimize the attraction for foraging and nesting material or substrates for nesting. The horizontal netting design will also incorporate the largest mesh size possible to reduce the attraction and viability for nests.</p> <p>Measure 9: Regular observations will be made of the horizontal netting by trained District personnel or a qualified avian biologist for one year after installation of the net to determine if bird carcasses are present in or on the net and whether these carcasses are juvenile birds that may have fledged from a nest adjacent to or on the Bridge during the first breeding season after construction. These observations will be conducted weekly during the period when nests are most likely to contain young (i.e. the months of February to July) and may be combined with the migration monitoring visits. These surveys will include searching for nests on the Bridge and bird carcasses in the net and photographing any observed, for identification by GGNRA staff within three days. If District personnel are used, a training program for such personnel will be developed by a qualified avian biologist that will document the methods for detecting and photographing nests on the Bridge structure.</p> <p>If mortality levels are greater than the pre-established limits (i.e. greater than 10 birds of any native species per month for one month; or one individual peregrine falcon, two individuals of any other raptor species, or four individuals of other special status species during one year) in coordination with the CDFG and the Migratory Bird Division of the USFWS and Caltrans, additional mitigation measures will be designed and implemented, including changes to the horizontal netting, as feasible, to reduce mortality. These changes will be implemented prior to the following breeding season (i.e. prior to December of the current year). The modified horizontal netting will be monitored twice per</p>	<p>Section 2.4.3</p>	<p>District</p>				

Task and Brief Description	Reference	Responsible Party	Task Completed		Environmental Compliance	
			Initial	Date	Initial	Date
<p>week during the following breeding season (i.e. December to July of the following year). If mortality is reduced to below the levels identified above during this following breeding season, the changes will be deemed acceptable, and further monitoring will not be required. If mortality levels are not reduced below the recommended levels, the District will consult with the CDFG, USFWS, and GGNRA staff to develop a feasible alternative mitigation strategy.</p>						