



RESOLUTION CERTIFYING THE FINAL ENVIRONMENTAL IMPACT REPORT PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT; APPROVING THE FINDINGS OF FACT; APPROVING THE STATEMENT OF OVERRIDING CONSIDERATIONS; ADOPTING THE MITIGATION MONITORING PLAN; AND APPROVING THE REFINED PRESIDIO PARKWAY AS THE PREFERRED ALTERNATIVE FOR THE SOUTH ACCESS TO THE GOLDEN GATE BRIDGE: DOYLE DRIVE REPLACEMENT PROJECT

WHEREAS, The Authority, Federal Highway Administration (“FHWA”) and the California Department of Transportation (“Caltrans”) have worked in partnership to prepare a combined Environmental Impact Report/Environmental Impact Statement (EIR/EIS) 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”);

WHEREAS, On February 23, 2000 the Authority distributed a Notice of Preparation (NOP), to advise interested agencies and the public that an EIR will be prepared to study alternatives for the replacement of Doyle Drive in the Presidio of San Francisco;

WHEREAS, In compliance with applicable CEQA requirements a Draft EIR/EIS was prepared and circulated for public and agency comment in December 2005, was posted on the Authority’s website and lodged in libraries in San Francisco, Alameda and Marin counties, and was the subject of two public hearings held by the Authority;

WHEREAS, The Draft EIR/EIS evaluates the potential environmental impacts of replacing Doyle Drive using two build alternatives, the Replace and Widen and Presidio Parkway, and one no-build alternative;

WHEREAS, The Authority and the FHWA received over 800 comments on the Draft



EIR/EIS;

WHEREAS, A Final EIR/EIS was prepared by the Authority and the FHWA in accordance with the requirements of CEQA and NEPA, which includes responses to comments on the Draft EIR/EIS, and which identifies the Refined Presidio Parkway as the preferred alternative for the replacement of Doyle Drive;

WHEREAS, The Refined Presidio Parkway is more fully described in Chapter 2 of the Final EIS/EIR;

WHEREAS, The Authority finds that all applicable requirements of CEQA and the State CEQA Guidelines are satisfied in the Final EIR/EIS;

WHEREAS, The Authority finds that the Final EIR/EIS was posted on the Authority's website and made available to public agencies and the public electronically and on paper as of October 31, 2008, and copies of the Final EIR/EIS were distributed on October 27, 2008, to the public and public agencies that submitted comments on the Draft EIR/EIS;

WHEREAS, Prior to taking action, the Authority has reviewed, and considered, among other items: (1) the information and data in the Draft and Final EIR/EIS; (2) information and data in related technical documents and presentations presented to the Authority; (3) the proposed CEQA Findings of Fact and the Statement of Overriding Considerations; (4) the proposed Mitigation Monitoring Plan; and (5) and all oral and written evidence presented to it;

WHEREAS, The Final EIR/EIS, and the proposed CEQA Findings of Fact and the Statement of Overriding Considerations, reflect the independent judgment of the Authority and are deemed adequate for purposes of making decisions on a preferred alternative for the replacement of Doyle Drive;

WHEREAS, The Authority has considered the environmental effects of the Refined Presidio Parkway Alternative as presented in the Final EIR/EIS and finds that with the inclusion of



the described design practices and mitigation strategies, as further discussed in the attached CEQA Findings of Fact, the potential adverse impacts of the preferred alternative will be avoided, reduced and minimized to the extent feasible and that the feasible mitigation strategies identified will be applied to further avoid and reduce impacts; and

WHEREAS, All legal prerequisites to the adoption of this Resolution have been fulfilled;

WHEREAS, On November 17, 2008 the Citizens Advisory Committee adopted a motion of support for certification of the Final Environmental Impact Report; approval of the Findings of Fact; approval of the Statement of Overriding Consideration; adoption of the Mitigation Monitoring Plan; and approval of the Refined Presidio Parkway as the preferred alternative for the South Access to the Golden Gate Bridge: Doyle Drive Replacement Project, and

WHEREAS, On December 9, 2008, the Plans and Programs Committee approved a recommendation for certification of the Final Environmental Impact Report; approval of the Findings of Fact; approval of the Statement of Overriding Consideration; adoption of the Mitigation Monitoring Plan; and approval of the Refined Presidio Parkway as the preferred alternative for the South Access to the Golden Gate Bridge: Doyle Drive Replacement Project., now therefore be it

RESOLVED, That

Section 1. Certification. The Authority hereby certifies that:

- (a) The Final EIR/EIS has been prepared in compliance with CEQA;
- (b) The Final EIR/EIS has been presented to and reviewed by the Authority prior to its making a final decision; and
- (c) The Final EIR/EIS reflects the Authority's independent judgment.

Section 2. Approval of Findings. As the lead CEQA agency for the Doyle Drive Replacement Project, the Authority has reviewed and considered the information contained in the Final EIR/EIS and in the Findings of Fact attached hereto as Exhibit "A" and supporting documentation. The



Authority determines that the Findings of Fact contain a complete and accurate reporting of the environmental impacts and mitigation strategies associated with the Refined Presidio Parkway Alternative as described in Chapter 3 of the Final EIR/EIS. The Authority further finds that the Findings of Fact have been completed in compliance with CEQA and the State CEQA Guidelines. The Authority hereby approves and adopts the Findings of Fact attached hereto as Exhibit "A".

Section 3. Approval of Statement of Overriding Considerations. The Authority hereby finds that the Statement of Overriding Considerations was completed in accordance with Public Resources Code section 21081 and State CEQA Guidelines Section 15093, subdivision (a), which states that CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. The Statement of Overriding Considerations is included in the Findings of Fact attached hereto as Exhibit "A" and sets forth those significant effects on the environment that are found to be unavoidable, but are acceptable due to the overriding concerns and benefits expected to result from implementing the Refined Presidio Parkway Alternative. The Authority hereby approves and adopts the Statement of Overriding Considerations included in the Findings of Fact attached hereto as Exhibit "A".

Section 4. Adoption of Mitigation Monitoring Plan. Pursuant to Public Resources Code section 21081.6, and State CEQA Guidelines Section 15091, subdivision (d), the Authority hereby adopts the Mitigation Monitoring Plan attached hereto as Exhibit "B".

Section 5. Approval of the Refined Presidio Parkway Alternative. Based on and in consideration of all of the foregoing, the Authority hereby approves the preferred alternative identified in Chapter 2 of the Final EIR/EIS as the Refined Presidio Parkway, along with, and as conditioned by, the design practices and mitigation strategies, which are described in the Findings of Fact attached hereto as Exhibit A and reflected in the Mitigation Monitoring Plan attached hereto as Exhibit B, and which



shall be incorporated into and be a part of the approved preferred alternative.

Section 6. File of Notice of Determination. Based on its consideration and approval of the Refined Presidio Parkway Alternative, the Authority hereby authorizes staff to file a Notice of Determination pursuant to Section 21152 of the Public Resources Code and Section 15094 of the CEQA Guidelines.

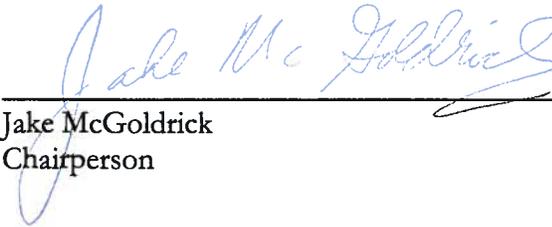
Enclosures

1. Findings of Fact and Statement of Overriding Considerations
2. Mitigation Monitoring Plan
3. Final Environmental Impact Statement/Report
4. Citizens' Guide to the Final Environmental Impact Statement/Report



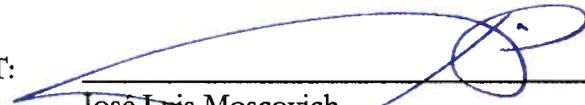
The foregoing Resolution was approved and adopted by the San Francisco County Transportation Authority at a regularly scheduled meeting thereof, this 16th day of December, 2008 by the following vote:

- Ayes:** Ayes: Commissioners Alioto-Pier, Campos, Chu, Daly, Dufty, Elsbernd, Maxwell, McGoldrick, Mirkarimi and Peskin (10)
- Nays:** (0)
- Absent:** Commissioner Sandoval (1)



Jake McGoldrick
Chairperson

12/16/08
Date

ATTEST: 

José Luis Moscovich
Executive Director

12/16/08
Date

FINDINGS OF FACT
and
STATEMENT OF OVERRIDING CONSIDERATIONS

For the
South Access to the Golden Gate Bridge
Doyle Drive Project
City and County of San Francisco, California

Prepared by:
San Francisco County Transportation Authority
Lead Agency under the California Environmental Quality Act

Prepared pursuant to:
Section 21081 et seq. of the California Public Resources Code and
State CEQA Guidelines, Section 15091 and 15903

November 2008

Table of Contents

<u>Section</u>	<u>Page</u>
1.0 Introduction	1
2.0 Project Description	2
3.0 CEQA Process.....	3
4.0 Record of Proceedings.....	4
5.0 Findings On Significant and Potentially Significant Effects of the Proposed Project Identified in the EIR.....	5
5.1 Land use and Planning.....	5
5.2 Visual and Aesthetics.....	6
5.3 Cultural Resources	7
5.4 Hydrology, Water Quality, and Stormwater.....	8
5.5 Geology / Soils / Seismic / Topography	10
5.6 Hazardous Materials	12
5.7 Air Quality.....	14
5.8 Noise.....	15
5.9 Vegetation	17
5.10 Wetlands.....	19
5.11 Animal Species	20
5.12 Growth inducing.....	23
5.13 Cumulative Impacts.....	23
6.0 Findings Regarding Project Alternatives.....	25
7.0 Statement of Overriding Consideration.....	28
8.0 Mitigation Monitoring PLAN.....	31
9.0 Independent Review and Analysis	31
10.0 Acronyms.....	32

1.0 INTRODUCTION

The San Francisco County Transportation Authority (Authority) proposes to reconstruct the existing Doyle Drive. The purpose of the project is to improve the seismic, structural, and traffic safety of the roadway that is approaching the end of its useful life. Doyle Drive, the southern approach of US 101 to the Golden Gate Bridge, is 2.4 kilometers (1.5 miles) long with six traffic lanes. The proposed project would replace the existing facility with a new six-lane facility and southbound auxiliary lane, between the Park Presidio Interchange and the new Presidio access at Girard Road. The Authority is the Lead Agency with primary responsibility for preparing and certifying the California Environmental Quality Act (CEQA) compliance documents. The lead agency for the environmental analysis of the proposed project under the National Environmental Policy Act (NEPA) is the Federal Highway Administration (FHWA). The Authority and the California Department of Transportation (Caltrans) are also co-lead agencies under NEPA. CEQA responsible agencies include Caltrans, the Golden Gate Bridge, Highway and Transportation District (GGBHTD) and the City and County of San Francisco. NEPA cooperating agencies include the Presidio Trust (Trust), United States Department of Interior, National Park Service (NPS) – Golden Gate National Recreation Area (GGNRA), and the United States Department of Veteran Affairs (VA).

The Authority is the state lead agency for purposes of compliance with CEQA, and these Findings of Fact and Statement of Overriding Considerations fulfill the Authority's responsibilities in considering the Final Environmental Impact Statement/Report (FEIS/R) as an EIR for purposes of CEQA.

These Findings of Fact cite substantial evidence in the record in support of each of the findings and present an explanation to supply the logical step between the finding and the facts in the record. (State CEQA Guidelines § 15091.)

Under CEQA, for each significant environmental effect identified in an EIR 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.” (State CEQA Guidelines § 15091, subd. [a][1].)
- “[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.” (State CEQA Guidelines § 15091, subd. [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.” (State CEQA Guidelines § 15091, subd. [a][3].)

CEQA 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 [276 Cal. Rptr. 410]).

The State CEQA Guidelines do not define the difference between “avoiding” a significant environmental effect and merely “substantially lessening” such an effect. The City 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, significant impacts that are mitigated but still remain significant even with the implementation of identified mitigation measures, the finding is that the impact is substantially 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],” these Findings, for purposes of clarity, 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.

This document presents the Authority Board’s Findings of Fact as required by CEQA, cites substantial evidence in the record in support of each of these findings, and presents an explanation to supply the logical step between the finding and the facts in the record (State CEQA Guidelines, Section 15091).

These findings include a description of the reconstruction of the southern approach to the Golden Gate Bridge on Doyle Drive, 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.

2.0 PROJECT DESCRIPTION

The proposed action would replace the existing Doyle Drive facility with a new six-lane facility within the setting and context of the Presidio of San Francisco and its purpose as a National Park. The new facility will consist of two 3.3-meter (11-foot) lanes and one 3.6-meter (12 foot) outside lane in each direction with three meter (10-foot) outside shoulders and 1.2-meter (4-foot) inside shoulders. The facility will include a southbound auxiliary lane between the Park Presidio Interchange and the Girard Road exit ramp, a landscaped median, and two sections of tunnel near the San Francisco National Cemetery and the Main Post.

Direct access to the Presidio and indirect access to Marina Boulevard will be provided via access ramps from Doyle Drive connecting to an extension of Girard Road. The Project will require the removal of eight buildings and the partial removal of one. Several design exceptions are being considered due to the urgency to address seismic and traffic safety, combined with extreme environmental sensitivity of the context and setting of the National Park/National Historic Landmark District (NHL), and to fit the facility within the restrictive geometry limits of the area,

The total estimated construction cost for the proposed project is approximately \$853 million dollars. The project would receive funding from local, state and federal sources. Approximately 20 percent of the funding would come from federal sources, 40 percent from state sources, and 40 percent from local sources. The Doyle Drive Project is included in the latest *Regional Transportation Plan (RTP)*, which is known as the *Transportation 2030 Plan*. The project is also included in the 2006 *Regional Transportation Improvement Program (RTIP)*. The Metropolitan Transportation Commission (MTC) now updates the RTP every four years and expects to adopt the new RTP, *Transportation 2035 Plan: Change in Motion* (or 2009 RTP), in early 2009. In July 2008, as part of 2009 RTP update, the MTC adopted the Draft Financially Constrained Investment Plan, which includes the Doyle Drive Replacement Project at a total cost of \$1.01 billion in escalated dollars.

Other state funding sources include the Traffic Congestion Relief Program, Interregional Transportation Improvement Program, and State Highway Operation and Protection Program. Federal and local funding would come from the Public Lands Highways Discretionary Program, High Priority Funding, Proposition K sales tax and other sources including funds secured through the Federal Urban Partnership Program. Additional funds to come from new and/or redirected federal funds, future Regional Improvement Program, and local sources including GGBHTD and MTC.

3.0 CEQA PROCESS

As required by CEQA, a Notice of Preparation (NOP) with an Initial Study Checklist was mailed on February 23, 2000 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 March 23, 2000. 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. The NOP is included in Appendix H of the Draft Environmental Impact Statement/Report (DEIS/R).

On December 30, 2005, the Authority issued the DEIS/R for public review period of 60 days that was extended an additional 30 days ending on March 31, 2006. The Notice of Availability was submitted to the Office of the San Francisco County Clerk and sent to the United States Environmental Protection Agency (EPA). Participating elected officials, agency representatives, libraries, stakeholder groups, and members of the public were sent copies of the DEIS/R 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*. A notification announcing the release and availability of the DEIS/R and notification of the

public hearings was sent to various media sources along with a postcard, which was sent through direct mail to the complete Doyle Drive mailing list of 2,400 addresses. Copies of the DEIS/R and companion materials were made available to the general public through multiple sources. Hardcopies and CD copies of the DEIS/R were available for viewing at the following local libraries: Caltrans Transportation Library in Oakland, CA; the San Francisco Public Library in San Francisco, CA; and the Marin County Public Library in San Rafael, CA. In addition, the materials were made available to through the project website, and upon request through the website, the project email address, or by calling the Authority. Public hearings on the DEIS/R were held on January 18, 2006 and February 15, 2006. Legal notices advertising the public hearings were printed in two local newspapers: *The San Francisco Chronicle* and *The Marin Independent Journal*. During the formal comment period of the DEIS/R, a total of 808 comments were received from the public and agencies. The majority of the comments received were related to the proposed project alternatives. Other major areas for which comments were made included traffic and transportation, biological resources, noise and vibration, air quality, and cultural resources.

In September 2008, the Authority completed the FEIS/R for the proposed Project. The FEIS/R comprises the revisions to the DEIS/R, dated December 2005, letters received commenting on the DEIS/R, and the Response to Comments (Appendix L). In accordance with Section 15150 of the State CEQA Guidelines, the certified FEIS/R is incorporated by reference.

It is intended that the Authority Board of Commissioners would consider the FEIS/R at its regularly scheduled meeting.

4.0 RECORD OF PROCEEDINGS

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

- The NOP prepared for the proposed project modifications;
- All public notices issued in conjunction with the proposed project modifications;
- The DEIS/R (dated December 2005);
- All comments submitted by agencies or members of the public during the 90-day public comment period on the DEIS/R;
- The Mitigation Monitoring Plan for the proposed project;
- All findings and resolutions adopted by the Authority in connection with the proposed project and all documents cited or referred to therein;
- The certified FEIS/R for the proposed project;
- All reports, studies, memoranda, maps, and other planning documents relating to the proposed project prepared by the Authority, the Authority's consultants, or responsible or trustee agencies with respect to the Authority's compliance with the requirements of CEQA, and with respect to Authority's action on the proposed project;

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

The custodian of the documents comprising the record of proceedings is the San Francisco County Transportation Authority (100 Van Ness Avenue, 26th Floor, San Francisco, CA 94102), and the record of proceedings is incorporated herein by reference.

5.0 FINDINGS ON SIGNIFICANT AND POTENTIALLY SIGNIFICANT EFFECTS OF THE PROPOSED PROJECT IDENTIFIED IN THE EIR

The FEIS/R identified 12 environmental factors where the proposed project may result in significant or potentially significant impacts. The majority of these significant impacts can be avoided through implementation of the identified mitigation measures, however, even with full implementation of the identified mitigation the proposed project will result in significant unavoidable impacts on three factors.

This section presents in greater detail the Authority’s Findings with respect to the significant and environmental effects of the proposed project. The section also provides a summary of the evidence of which was used by the Authority in making the findings. The evidence presented is drawn from the Notice of Preparation, the FEIS/R, the comments on the DEIS/R and responses to those comments, and other evidence presented to the Authority, including all other information in the administrative record, incorporated herein by reference.

5.1 Land use and Planning

Significant Effects

Permanent Impacts

- The Project will be inconsistent with some elements of the various local planning documents including the *Presidio Trust Management Plan* (PTMP), VMP and *San Francisco General Plan*.

Temporary Impacts

There are no significant temporary effects related to land use and planning as a result of the Doyle Drive Project.

Mitigation: No feasible mitigation is available for the Project inconsistencies with the planning documents.

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. (x) “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.”

Facts in Support of the Finding: Although the Project will be inconsistent with some elements of the various local planning documents, the overall objectives of the Project would be consistent with the major elements of the documents - namely improving safety of Doyle Drive, providing access to the Presidio, and enhancing open space and views with the Presidio. Nonetheless, since some inconsistencies with various local planning documents will remain, this impact is considered to be significant and unavoidable.

Reference: The discussion on setting, impacts, and mitigation related to Land Use and Planning are included in Section 3.2.1 of the FEIS/R prepared for the Doyle Drive Project.

5.2 Visual and Aesthetics

Significant Effects

Permanent Impacts

There are no significant permanent visual impacts associated with the Doyle Drive Project. The new roadway will place portions of the roadway below grade and/or underground, thus removing portions of it from the existing landscape. Visual quality in some areas of the Presidio will improve and visual connections between areas of the Presidio that have been separated by the low-viaduct will be restored.

Temporary Impacts

- During the approximately 3.5 year construction period there will be an adverse change in the visual character of the project area.
- Construction equipment will present along the project corridor.
- Existing landscaping and vegetation will be removed and structures will be demolished.
- The construction area may experience increased light and glare from temporary lighting sources at night due to the scheduling of nighttime construction work.
- A temporary detour structure will be placed along the northern side of Doyle Drive from Building 610 to Richardson Avenue.

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. (x) “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.”

Facts in Support of the Finding: No feasible mitigation is available for the temporary visual impacts associated with the construction of the new roadway. Of all build alternatives analyzed, the Preferred Alternative would have the shortest construction period, with construction anticipated to be completed within three and a half years. Following construction, all temporarily affected areas will be restored to their appropriate native vegetation in natural areas, or appropriate ornamental vegetation type in landscaped areas in accordance with the *Presidio Vegetation Management Plan* (VMP). Nonetheless, the temporary impact is considered to be significant and unavoidable for the duration of construction.

Reference: The discussion on setting, impacts, and mitigation related to Visual and Aesthetics are included in Section 3.2.10 of the FEIS/R prepared for the Doyle Drive Project.

5.3 Cultural Resources

Significant Effects

Permanent Impacts

In accordance with 36 CFR 800, a Finding of Adverse Effect has been determined for the Presidio NHLD through the destruction of contributing elements of the Presidio NHLD. There would be a direct adverse effect on the Doyle Drive viaducts through their removal and replacement with new structures. In addition, four buildings that contribute to the Presidio NHLD (Buildings 201, 204, 230, and 670) will be removed. Buildings 204, 230, as well as the ground floor of Building 201 will be deconstructed with some portions of the structures salvaged while Building 670 will be demolished. The top floor of Building 201 will be moved, temporarily stored, and returned to its current location following completion of the project. The Presidio NHLD will also be adversely affected by altering the alignment of the following contributing roads: Veterans Boulevard (Highway 1), Richardson Avenue, Bank Street, Battery Blaney Road, Crissy Field Avenue, Cowles Street, Girard Road, Gorgas Avenue, Halleck Street, Marshall Street, Lincoln Boulevard, and Vallejo Street.

Temporary Impacts

There will be no temporary impacts to cultural resources

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. (x) “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.”

Facts in Support of the Findings: The measures taken to mitigate adverse effects of the project are addressed in a *Programmatic Agreement* (PA) and cultural resource treatment plan which were developed in coordination with FHWA, State Historic Preservation Office (SHPO), Advisory Council on Historic Preservation (ACHP), the federal cooperating agencies, and other interested parties. The built environment treatment plan describes how effects to buildings and the cultural landscape are addressed. The archaeological treatment plan describes the procedures that will be followed to ensure that the one known archaeological site (CA-SFR-6/26) will be protected and how any inadvertent discoveries of archaeological sites will be addressed. While the degree of impact to cultural resources will be lessened through the implementation of feasible mitigation identified in the PA and the overall Presidio NHLD will still retain sufficient integrity to convey its historical significance, impacts to the Presidio NHLD are unavoidable with implementation of the Doyle Drive Project.

Reference: The discussion on setting, impacts, and mitigation related to Cultural Resources are included in Section 3.2.11 of the FEIS/R prepared for the Doyle Drive Project.

5.4 Hydrology, Water Quality, and Stormwater

Permanent Impacts

- Low-lying portions of the facility may be subject to rare flooding events caused by tsunami wave run-up and/or extreme high tides. The depressed portion of the new Presidio access in the area north of the Main Post and east of Halleck Street is particularly susceptible to flooding.
- Construction of the tunnels through the eastern bluff area may potentially affect the groundwater flow within specific bedrock fractures, should they be found to exist, resulting in an impact to biotic resources located on the entire bluff face.
- During stormy wet periods that affect regional groundwater levels there is the potential that the ground water table in the vicinity of the Main Post Tunnel may rise and come into contact with the tunnel.

Temporary Impacts

- During dewatering of excavations there is the potential to encounter contaminated groundwater.
- Runoff generated during rainstorms may result in erosion of exposed and stockpiled soil. Sediment transported by runoff may cause sedimentation in downstream drainages

and/or the sewer system. Any blocked flows may result in localized ponding or flooding and impacts to aquatic habitat.

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.”

Facts in Support of the Finding: The potential impacts identified in the EIR will be reduced to a less than significant level with the implementation of the following mitigation measures.

- To minimize groundwater intrusion into belowground work areas, a shoring system will be used during the excavation of the tunnels through the East Bluff area.
- Design of the roadway will include flood protection for the low portions of the roadway including the eastern portal of the Main Post tunnel and depressed segment of Girard Road. Flood protection features will consist of either landscaped berms or barrier structures.
- Construction of the tunnels will include the placement of discrete high-permeability strip drains consisting of a fabricated geocomposite core with a filter fabric around the tunnel box in order to maintain the groundwater movement in the area. The strip drains will be expected to convey a similar quantity of groundwater to the bluff that the existing fractured bedrock formation delivers.
- The Main Post tunnel will be constructed with a permeable gravel envelope and/or strip drains around the tunnel box so water will be easily transmitted to the downgradient side under the tunnel.
- In accordance with the requirements of the NPDES *Caltrans Statewide Stormwater Permit* and *Construction General Permit*, a *Stormwater Pollution Prevention Plan* (SWPPP) will be developed prior to construction and will detail the methods to reduce pollutants in stormwater discharges and the potential for erosion and sedimentation.
- Any dewatering associated with the project will be done in conformance with the Caltrans permit and *Stormwater Management Plan* (SWMP) or any separate dewatering permit issued by the San Francisco Regional Water Quality Control Board (SFRWQCB).
- A method for the long-term stormwater treatment will be included in the project design. Two treatment options are being investigated including collection on the facility and discharge to the existing San Francisco Public Utilities Commission (SFPUC) or runoff

will be treated prior to discharge to surface waters, to the extent feasible, at or near the new structure.

- Washdown water from cleaning the tunnel and any incidental stormwater runoff collected from within the tunnels will be disposed in one of the following ways: 1) discharged to the sanitary sewer system, 2) collected and hauled off-site for treatment and disposal, or 3) treated on-site in a specially designed separate treatment system.

The implementation of the identified mitigation measures and standard industry practices will reduce the impacts to water quality and surrounding environment, related to construction runoff and dewatering, to levels less than significant. Design and construction of the new facility will protect the facility from flood or extreme tidal events, will maintain the hydrologic conditions and regime around the tunnels, and will include methods for the long-term treatment of stormwater runoff.

With Mitigation the Effects are Found to be:

() Significant (x) Not Significant

Reference: The discussion on setting, impacts, and mitigation related to Hydrology, Water Quality, and Stormwater are included in Section 3.3.1 of the FEIS/R prepared for the Doyle Drive Project.

5.5 Geology / Soils / Seismic / Topography

Significant Effects

Permanent Impacts

- The Project would require the removal of a portion of Serpentinite along the Western Bluff. This geologic material is a designated resource as defined in the Presidio Trust Management Plan.

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. (x) “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.”

Facts in Support of the Finding: No feasible mitigation is available for the removal of the designated resource, and this impact will be significant and unavoidable. However, although the placement of the tunnel segments will require the removal of a portion of serpentinite, the Presidio will benefit from the increased open space atop the tunnels, enhanced views in the area, and a reconnection between the Main Post and Crissy Marsh areas.

Reference: The discussion on setting, impacts, and mitigation related to Geology/Soils/Seismic/Topography are included in Section 3.3.2 of the FEIS/R prepared for the Doyle Drive Project.

Significant Effects

Permanent Impacts

- The proposed project is subject to ground shaking and soil liquefaction due to seismic activity. Ground motion, soil liquefaction and settlement could result in structural damage to the facility and potential roadway closures.
- The natural topography along the project corridor would be modified.

Temporary Impacts

- During construction, topographic grades and non-vegetated, exposed ground will be created that will be susceptible to wind and water erosion.
- Construction workers may be exposed to hazardous concentrations of naturally occurring asbestos present in serpentinite bedrock.

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.”

Facts in Support of the Finding: The following mitigation measures will be implemented to reduce potential impacts identified in the EIR.

- All structures will be designed using the *Caltrans Seismic Design Criteria* with design based on a Magnitude 8 earthquake on the San Andreas Fault.
- Special design features, such as deep foundations, will be incorporated into structures that will be placed in soils vulnerable to liquefaction.
- Prior to construction, geotechnical borings will be reviewed to identify areas of serpentinite bedrock that will be disturbed during construction. An *Asbestos Dust Mitigation Plan* will be developed and will include *Best Management Practices* (BMPs) to minimize dust during grading and other earthmoving operations.

The implementation the identified mitigation measures and standard industry practices will reduce the impacts related to seismic activity and liquefaction to levels less than significant.

Design and construction of the new facility will follow current Caltrans seismic design criteria and will incorporate BMPs to control erosion and asbestos dust.

With Mitigation the Effects are Found to be:

() Significant (x) Not Significant

Reference: The discussion on setting, impacts, and mitigation related to Geology/Soils/Seismic/Topography are included in Section 3.3.2 of the FEIS/R prepared for the Doyle Drive Project.

5.6 Hazardous Materials

Significant Effects

Permanent Impacts

No permanent impacts associated with hazardous materials would result from the operation of the new Doyle Drive as any hazardous materials would be remediated prior to completion of construction.

Temporary Impacts

- Construction activities may expose construction workers to hazardous concentrations of metals and other contaminants from aerially deposited lead, viaduct coatings, and historic hazardous materials releases along the project corridor.
- Construction activities may expose construction workers to hazardous levels of naturally occurring asbestos present in serpentinite bedrock.
- Construction dewatering may potentially discharge contaminated groundwater to sanitary and /or storm sewers and potentially affect surface water quality.
- The demolition of structures may expose construction workers, park visitors and nearby workers and residents to hazardous concentrations of lead and/or asbestos from building materials.
- During the course of construction of the new facility, there may be some impediment to the investigation and remediation of hazardous material sites at the Presidio.

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.”

Facts in Support of the Finding: The following mitigation measures will be implemented to reduce potential impacts identified in the EIR.

- Soil investigations will be performed prior to the start of construction to determine if any soils near Doyle Drive have been affected by aerially deposited lead. Depending on the results of the testing, special soil management and disposal procedures may be required and/or additional construction worker health and safety procedures implemented during construction.
- Prior to construction, a *Site Management Program/Contingency Plan* (SMP/CP) will be prepared to address known and potential hazardous material issues during construction. The SMP/CP will include a site-specific *Health and Safety Plan* (HASP) that would include measures to protect construction workers and the general public by including engineering controls, monitoring, and security measures to prevent unauthorized entry to the construction area, and reduce hazards outside it.
- Prior to construction, geotechnical borings will be reviewed to identify areas of serpentinite bedrock that will be disturbed during construction. An *Asbestos Dust Mitigation Plan* will be developed and will include Best Management Practices (BMPs) to minimize dust during grading and other earthmoving operations.
- During the geotechnical investigation, the areas slated for dewatering will be tested for potential contamination in the groundwater. A permit from the SFRWQCB and/or SFPUC will be required for any dewatering activities during construction. Project construction will use techniques to minimize the amount of groundwater dewatering.
- A lead-based paint survey and asbestos-containing materials survey will be conducted prior to the demolition of any buildings.
- All construction activities associated with the project will be coordinated with the Presidio Trust to ensure that project development does not affect on-going hazardous materials investigations and/or remediation efforts.

The implementation of the identified mitigation measures will reduce the potential for the release or exposure to hazardous materials to a less than significant level. Appropriate testing and the development of the SMP/CP prior to construction will ensure any hazardous materials are remediated prior to the construction of the project and no further mitigation would be necessary.

With Mitigation the Effects are Found to be:

() Significant (x) Not Significant

Reference: The discussion on setting, impacts, and mitigation related to Hazardous Materials are included in Section 3.3.3 of the FEIS/R prepared for the Doyle Drive Project.

5.7 Air Quality

Significant Effects

Permanent Impacts

No permanent air quality impacts would result from the operation of the new Doyle Drive. Emissions from the Doyle Drive Project have been incorporated by the MTC into the most recent regional air quality conformity analysis and therefore, emissions from the Project will not contribute to exceedances of the national ozone standard.

Temporary Impacts

- Construction activities will generate emissions of criteria pollutants including dust, PM₁₀ and PM_{2.5}. These emissions will vary from day to day depending on the level and type of activity, silt content of the soil, and the weather.
- Construction activities will result in the emission of other criteria pollutants from equipment exhaust, construction-related vehicular activity and construction worker automobile trips. Emission levels will vary depending on the number and type of equipment, duration of use, operation schedules, and the number of construction workers.

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.”

Facts in Support of the Finding: The following mitigation measures will be implemented to reduce potential impacts identified in the EIR.

- During construction, the contractor will be required to mitigate potential impacts by implementing the Bay Area Air Quality Management District (BAAQMD) basic dust control procedures. Elements of the dust abatement program will include, as applicable, but not limited to the following:
 - Water all active construction areas at least twice a day.
 - Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 0.6 meters (two feet) of freeboard (i.e., the

minimum space required between the top of the load and the top of the trailer).

- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep streets (with water sweepers using reclaimed water if possible) at the end of each day if visible soil material is carried onto adjacent paved roads.
- As the Environmental Protection Agency (EPA) Tier 4 emission standards are phased in over the period of 2008-2015, future construction equipment will be required to use emission control technologies similar to those required by the standards for highway engines. Implementation of this regulation will serve to reduce NO_x, Volatile Organic Compound, and toxic PM₁₀ emissions.

The implementation of the identified mitigation measures during the course of construction will reduce the potential for air quality impacts to a less than significant level. Since the project will meet air quality standards, there will be no impacts on local air quality or cause exceedances of state or federal standards.

With Mitigation the Effects are Found to be:

() Significant (x) Not Significant

Reference: The discussion on setting, impacts, and mitigation related to Air Quality are included in Section 3.3.4 of the FEIS/R prepared for the Doyle Drive Project.

5.8 Noise

Significant Effects

Permanent Impacts

- The future noise levels of the Preferred Alternative are expected to approach or exceed the noise abatement criteria (NAC) at 25 sites, 11 of which are classified as Category B land uses (residential, recreational, etc.).
- Noise impacts along the Preferred Alternative would be location specific, concentrated in the residential areas along Storey Avenue, Armistead Road, Officer Family Housing, and Lyon Street. These receptors are near the roadways, often less than six meters (20 feet) away.
- Overall, the average noise level for the 76 receptor sites is predicted to decrease 2.8 dBA from the levels predicted for the No-Build Alternative.

Temporary Impacts

- The Temporary Construction Detour (TCD) has the potential to increase the noise levels at 28 sites when compared to the predicted noise levels for the existing condition. The average increase in the traffic noise level as a result of the TCD is predicted to be about 3.5 dBA over the existing noise levels, a change which is barely detectable to the human ear in an exterior setting. The increase in the expected traffic noise level associated with

the TCD is primarily attributable to the general shift to the north and to the placement of the roadway in an at-grade condition in areas where it was previously anticipated to be elevated.

- The greatest increase in noise level is expected to be at the Crissy Field Center, Buildings 1184 and 1185 and 1186 (Mason Street warehouses), Buildings 1161 and 1170, and the Palace of Fine Arts. The Crissy Field Center is a community environmental facility that offers a wide variety of programs such as workshops and special events. The Center also houses a media lab, arts workshop, urban ecology lab, and resource library and is used for many educational functions such as summer programs. Concerns about the continued operation of the Center during and following construction have been raised.

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.”

Facts in Support of the Finding: The following mitigation measures will be implemented to reduce potential impacts identified in the EIR, whereby the overall mitigation goal is to avoid and minimize temporary construction impacts.

- Due to the limited ability of methods minimize or eliminate the potential impacts at the Crissy Field Center from the TCD, it has been determined that the functions of the Crissy Field Center will be temporarily relocated during the construction phase to a more suitable location.
- A barrier could reduce noise by approximately 10 dBA at the five affected residential receptors located north of Doyle Drive in the area along Armistead Road. This wall would measure 3.05-meter-high (10-foot) and 318 meters long (1,043 feet) and would extend along the edge of the Doyle Drive right-of-way line along the northbound on-ramp from Veterans Boulevard to Doyle Drive and extend westward to Merchant Road. Results of the initial investigation indicate that this barrier would be feasible according to the Caltrans protocol. However, the soundwall was determined to not be desirable or consistent with the cultural landscape of the Presidio. The Presidio Trust as land managers have indicated that the benefits from building this soundwall would be outweighed by the negative effects on the cultural landscape. This determination was made through the application of the historic preservation and architectural criteria developed for the Doyle Drive Project as part of the built environment treatment plan. The built environment treatment plan is part of the *Programmatic Agreement* that was developed as part of the Section 106 process to document the measures that will be taken to mitigate the adverse effects of the Project on cultural and historic resources.

- A detailed construction noise plan will be developed for inclusion into the construction contract documents. This plan will include the specifications found in the current version of the *Caltrans Standard Specifications* related to noise control as well as those found in the *Caltrans Standard Special Provisions*. In addition to the noise-related specifications found in the *Caltrans Standard and Special Specifications*, the plan will include noise field monitoring of construction impacts. This monitoring will be conducted in concert with the Trust and NPS staffs.

Temporarily relocating the Crissy Field Center operations during construction will reduce the potential for noise related impacts to a less than significant level while construction of a noise barrier along Armistead Road would lessen the noise levels for the residences in the area to a less than significant level.

With Mitigation the Effects are Found to be:

() Significant (x) Not Significant

Reference: The discussion on setting, impacts, and mitigation related to Noise are included in Section 3.3.5 of the FEIS/R prepared for the Doyle Drive Project.

5.9 Vegetation

Significant Effects

Permanent Impacts

- Construction near Battery Blaney may result in skunkweed, a federal species of local concern, and San Francisco gumplant, a federal species of concern, being removed or disturbed. Skunkweed is located in the construction corridor next to Battery Blaney and will be affected by activities such as trenching and excavation for the battery tunnels for the Preferred Alternative.
- The Preferred Alternative will result in the permanent loss of 4.62 hectares (11.42 acres) of non-native introduced forest and ornamental wildlife habitat and grasslands. In addition, the alternative will disturb 0.21 hectare (0.53 acre) of Northern coastal scrub on sandy soil and 0.21 hectare (0.53 acre) of Northern coastal scrub on sandy soil with serpentine inclusions.

Temporary Impacts

- Soil runoff in the wet season during excavation and grading could indirectly affect federal special concern plant species and their habitat in the study area near the construction corridor.
- Trampling could lead to erosion, community fragmentation, soil and root compaction, and plant mortality at localized areas. Trampling can also create favorable conditions for invasive non-native plant species, such as bull thistle (*Cirsium vulgare*), and non-native annual species to be introduced or spread into the area.
- Construction activities will result in direct temporary impacts on important upland plant communities including 0.01 hectare (0.02 acre) of northern coastal scrub on sandy soils

and 0.35 hectare (0.87 acre) of northern coastal scrub on sandy soil with serpentinite inclusions.

- Dust could temporarily cover the leaves, thereby reducing the exchange of light and gas of plants within important plant communities north of the construction corridor and within the project study area. Within the project study area, plants at Crissy Marsh, such as California seablite, would be particularly susceptible to the effects of dust.

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.”

Facts in Support of the Finding: The following mitigation measures will be implemented to reduce potential impacts on plant resources identified in the EIR.

- A Doyle Drive Monitoring Program for Biological Resources (Monitoring Program) will be designed to ensure that biological monitoring is effectively administered and results in the avoidance and minimization of adverse effects on sensitive resources. It will provide that in cases where standards are not met, the appropriate parties are notified to take corrective action and implement adaptive management.
- All sensitive habitat and special-status plant species within or next to the construction corridor that are not temporarily or permanently affected by the project will be designated as Environmentally Sensitive Areas (ESAs). The ESAs will be off-limits to all construction activity and will be clearly marked on the project plans. To protect against direct and indirect construction impacts, the areas will be flagged before construction and fenced-off using materials such as construction orange fencing and silt-fencing.
- The Project will implement measures such as soil stabilization controls and silt fencing, which would be mandated by the SWPPP to avoid causing indirect effects to plant species of concern.
- To minimize the effects of construction dust, the Project would adhere to the basic dust control procedures specified by the BAAQMD and the Caltrans special provision. This would ensure that dust emissions during the dry season would be minor and that impacts to special-status plant species would be minimal.
- If avoiding special-status plant species is not feasible, federal or state species of concern habitat will be restored at a 1.5:1 ratio as described in the following section. In-lieu funding will be required if federal or state species of concern restoration is impracticable.

- Within the construction corridor, all natural areas disturbed temporarily because of project activities will be revegetated and restored to the appropriate native vegetation type in natural areas, or appropriate ornamental vegetation type in landscaped areas. Revegetation and restoration will be completed in accordance with the Presidio Trust 2001 *Vegetation Management Plan* (VMP) and standard NPS and Trust restoration practices.
- The project proponent will maintain the mitigation sites. Maintenance will include replacing plants, maintaining erosion control materials and irrigation systems, controlling weeds, and removing trash and other debris. Maintenance may include monitoring the site every 30 days for the first three months following planting and every 60 days thereafter during the first year of plant establishment.

Given that the project will include designating ESAs both before and during construction, revegetating disturbed areas, and implementing avoidance and minimization measures, impacts to special-status plant species and this impact is considered less than significant.

With Mitigation the Effects are Found to be:

() Significant (x) Not Significant

Reference: The discussion on setting, impacts, and mitigation related to Natural Communities are included in Section 3.4.1 while Plant Species are included in 3.4.3 of the FEIS/R prepared for the Doyle Drive Project.

5.10 Wetlands

Significant Effects

Permanent Impacts

- Construction of the new roadway will permanently affect 0.13 hectare (0.33 acre) of United States Army Corps of Engineers (USACE) jurisdictional waters of the U.S. at W-2 and W-3. In addition, 0.08 hectare (0.19 acre) of Cowardin wetlands at W-6a, W-6b and W-6c will also be permanently affected.

Temporary Impacts

- Preferred Alternative may temporarily affect a total of 0.03 hectare (0.08 acre) of USACE jurisdictional area at Tennessee Hollow and 0.0004 hectare (0.001 acre) of Battery Howe-Wagner.
- The Preferred Alternative will temporarily affect 0.06 hectare (0.16 acre) of Cowardin wetland W-5.
- Tunneling upslope of the bluffs north of the cemetery during construction could alter or disrupt groundwater flows, potentially affecting existing plants that rely on emergent groundwater.

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.”

Facts in Support of the Finding: The following mitigation measures will be implemented to reduce potential impacts identified in the EIR. Mitigation measures to address direct impacts and indirect impacts to USACE jurisdictional waters are required to comply with *Section 404* of the *Clean Water Act*. Similarly, mitigation measures will address impacts to Cowardin wetlands, which are protected by the NPS and Trust.

Temporary impacts will be mitigated by in-kind, in-place restoration after construction at a 1:1 ratio. Following the 2005 NPS/Trust Strategy, three basic strategies for mitigation of permanent and indirect wetland impacts have been discussed with the Trust and NPS. These are: 1) wetland creation, 2) intensive wetland enhancement, and 3) wetland enhancement. The compensatory value, respectively, are 2:1, 3:1 and 5:1 ratios of created or enhanced habitat to impacted habitat based on current discussions with the NPS and the Trust.

Compensation for permanent impacts on wetlands will include: (1) wetland creation and restoration; (2) funding of Park agency wetland enhancement and creation projects; or (3) a combination of both (1) and (2).

These measures, including mitigation efforts to restore affected wetlands and create new wetlands or provide funding for enhancement and creation projects will reduce the impacts to wetland resources to a less than significant level.

With Mitigation the Effects are Found to be:

() Significant (x) Not Significant

Reference: The discussion on setting, impacts, and mitigation related to Wetlands are included in Section 3.4.2 of the FEIS/R prepared for the Doyle Drive Project.

5.11 Animal Species

Significant Effects

Permanent Impacts

- The Doyle Drive Project will have no effect on any state or federal listed animal species or designated critical habitat. The long-term impact is the loss of minor amounts of wildlife habitat which would be 4.61 hectares (11.39 acres) of non-native introduced forest and ornamental wildlife habitat.

- The project will require removing existing structures within the construction corridor, which may affect bat habitat.

Temporary Impacts

- Construction of the project may disturb or directly cause the mortality of common wildlife species, as well as habitat loss and degradation. Causes of mortality may include road kills and destruction of burrows and nests during the construction phase of the project.
- Construction noise may reduce habitat quality, causing the displacement of some animals. Such habitat losses may be permanent for certain burrowing mammals, whose populations may be eliminated. Impacts to common wildlife species are considered minor.
- Construction lighting is expected to be considerably brighter than current sources of night lighting in the project area. This raises the possibility of light as an attractant, especially for migratory birds which will be an adverse impact but one for which an assessment of degree will be difficult to determine.
- Activities such as grading and trenching will temporarily disrupt a segment of a primary corridor used by urban wildlife. This corridor is in the northern portion of the Presidio between the Pacific Ocean and coastal bluffs in the west and the non-native introduced forest in the east. This impact is considered adverse, but minor, and localized in the Presidio.
- Dust generated by construction activities may indirectly affect plant vigor and survival, and cause plants to become unsuitable for perching, metamorphosing nymphs (immature stage), or egg-laying, or unpalatable for foraging invertebrates. Effects on special-status invertebrate species due to dust emissions during the dry season will be minor because dust control procedures will be implemented as part of the project.
- The habitat for the tree lupine moth will be affected by the clearing of the larval host plant, yellow bush lupine.
- Construction activities may result in the mortality or reduced productivity of nesting special-status raptors and other avian species. Raptors nesting or foraging near ongoing disturbances perceived as non-threatening are more prepared for human intrusion than raptors inhabiting more remote areas. This suggests that the indirect effects of construction activity within the construction corridor will be negligible, since ambient noise levels from moving vehicles and humans in the project study area are already high. The exception will be the effects of conventional pile driving, which can cause noises in excess of 100 dBA. In general, animals exposed to such sounds at first instance can be expected to display a startle reaction that might cause, for example, a bird to briefly or permanently abandon a nest, causing some increase in the exposure of the eggs to heating, cooling, or predation. These reactions are similar to those caused by other disturbances such as cars backfiring, a sonic boom, or humans approaching the nest site. The impact of pile driving on birds is considered adverse for all build alternatives.

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.”

Facts in Support of the Finding: The following mitigation measures will be implemented to reduce potential impacts on animal species identified in the EIR.

- A Doyle Drive Monitoring Program for Biological Resources (Monitoring Program) will be designed to ensure that biological monitoring is effectively administered and results in the avoidance and minimization of adverse effects on sensitive resources. It will provide that in cases where standards are not met, the appropriate parties are notified to take corrective action and implement adaptive management.
- The goal of bird mitigation is to avoid the loss of active bird nests, from the onset of reproductive behavior through the fledging of young. Periodic surveys will be conducted before and during construction for raptors and other native avian species. Mitigation actions are situation-specific, and the need for and type of action are determined by qualified biologists as the work is taking place.
- During final restoration planting for areas along or on the median of the roadway, plant species that will attract birds will be avoided.
- To protect breeding bats at the Doyle Drive Project site, pre-construction surveys and avoidance measures will be implemented.
- Best Management Practices (BMPs) designed to minimize impacts to natural communities and the wildlife that utilize will be implemented.
- To counter the effects of construction lighting, there will be a reduction of upward radiation by the best available and feasible means (for example, downward-pointing lights, side shields and visors) as agreed upon by the NPS and Trust will be used at Doyle Drive, and will be considered part of the project. In order to insure the use of best available current data, a *Night Lighting Plan* will be developed as part of final mitigation design. Other methods of impact reduction (large screens, for example) will have their own impact on night flying birds and bats and will not be used.

With implementation of the identified mitigation measures, including the Biological Monitoring Program, appropriate bird surveys, and BMPs designed to protect natural habitat communities, impacts to animal species will be minimal and is considered less than significant.

With Mitigation the Effects are Found to be:

() Significant (x) Not Significant

Reference: The discussion on setting, impacts, and mitigation related to Animal Species are included in Section 3.4.4 of the FEIS/R prepared for the Doyle Drive Project.

5.12 Growth inducing

The Doyle Drive Project would not induce population growth in the immediate or surrounding areas. The proposed project would replace the existing roadway with a safer and more context sensitive structure. It would not provide additional roadway capacity or provide access to undeveloped areas. Future growth of the surrounding areas is guided by the local plans and policies.

5.13 Cumulative Impacts

Significant Effects

Permanent Impacts

- The Doyle Drive Project will result in both the introduction of new construction, the destruction of contributing buildings and structures into a part of the Presidio NHLD that has already lost some historic integrity through the demolition of contributing buildings and structures. The Project will also result in the alteration of contributing roadways, and alteration and removal of historic features with the addition of non-historic features into the cultural landscape. These impacts, when considered in conjunction with past, present, and future projects, will result in an adverse cumulative effect to the Presidio NHLD.
- The Doyle Drive Project coupled with the other projects in the study area would result in long-term effects on biological resources, primarily on important plant communities, Army Corps of Engineers (USACE) jurisdictional waters of the U.S., Cowardin wetlands under protection of the National Park Service (NPS) or the Presidio Trust, and nesting bird species. These cumulative effects would contribute cumulatively to non-listed special-status plant and animal species, native plant community and jurisdictional wetland impacts at the Presidio. The long-term benefits of cumulative restoration of historically disturbed and existing disturbed areas proposed under the Presidio plans and projects will reduce the effects on biological resources. Implementation of mitigation will reduce adverse effects of the Doyle Drive Project, and will thus reduce cumulative impacts on non-listed special-status plant and animal species, native plant communities, and jurisdictional wetlands. Overall, the cumulative impacts may provide a beneficial effect on the study area
- The Doyle Drive Project will result in a net decrease in impervious cover because much of the roadway will be underground in tunnel segments and not exposed to rainfall and runoff. The reduced runoff volumes and requirements for stormwater treatment associated with the Preferred Alternative would have an overall cumulative beneficial effect to surface water quality to area creeks and the San Francisco Bay.
- The Doyle Drive Project in combination with other projects will result in an overall beneficial effect on the visual environment, particularly when considering such projects as historic restoration, wetland enhancement, and removal of the elevated transportation corridor, which are all consistent with the plans and policies for the Presidio.

Temporary Impacts

- During the construction period of the Doyle Drive Project, delays associated with other projects could result in a cumulative effect of increased traffic delay in terms of access into the City. These delays will be considered temporary. The potential for increased delay and congestion will depend on the timing of construction activities associated with each project, the amount of traffic diversion from these facilities to Doyle Drive, and measures that will be implemented to eliminate or reduce potential impacts such as public awareness campaigns and increased transit service.

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. (x) “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.”

Facts in Support of the Findings: The measures taken to mitigate adverse effects of the Doyle Drive Project on the Presidio NHLD are addressed in a *Programmatic Agreement* (PA) and treatment plans which were developed in coordination with FHWA, State Historic Preservation Office (SHPO), Advisory Council on Historic Preservation (ACHP), the federal cooperating agencies, and other interested parties. While the degree of impact to cultural resources will be lessened through the implementation of feasible mitigation identified in the PA and the overall Presidio NHLD will still retain sufficient integrity to convey its historical significance, impacts to the Presidio NHLD are unavoidable with implementation of the Doyle Drive Project.

Mitigation measures will be implemented to reduce potential impacts on plant resources identified in the EIR. These measures include the development and implementation of a Doyle Drive Monitoring Program for Biological Resources (Monitoring Program), designation of Environmentally Sensitive Areas (ESAs), which will be off-limits to all construction activity and will be clearly marked on the project plans, and revegetation of all natural areas disturbed temporarily because of project activities.

Temporary impacts to wetlands will be mitigated by in-kind, in-place restoration after construction at a 1:1 ratio. Mitigation of permanent and indirect wetland impacts will follow three basic strategies of the 2005 NPS/Trust Strategy. These are: 1) wetland creation, 2) intensive wetland enhancement, and 3) wetland enhancement. The compensatory value, respectively, are 2:1, 3:1 and 5:1 ratios of created or enhanced habitat to impacted habitat based on current discussions with the NPS and the Trust. Compensation for permanent impacts on wetlands will include: (1) wetland creation and restoration; (2) funding of Park agency wetland enhancement and creation projects; or (3) a combination of both (1) and (2).

Following construction, all temporarily affected areas will be restored to their appropriate native vegetation in natural areas, or appropriate ornamental vegetation type in landscaped areas in accordance with the *Presidio Vegetation Management Plan* (VMP).

In order to manage the flow of traffic during the construction period, a *Transportation Management Plan* (TMP) will be developed prior to construction of the Doyle Drive Project. The TMP will include strategies for items such as conducting public outreach, providing motorist information, incident management, and operations of construction staging and detours. In the event of a weekend closure of the facility during construction, mitigation funds may be provided to the Golden Gate Bridge, Highway and Transportation District to provide additional ferry service to accommodate the additional need.

Reference: Chapter 5 of the FEIS/R discusses the reasoning for the conclusions of the cumulative impact analysis. The discussion on setting, impacts, and mitigation related to Cultural Resources, Biological Resources, Hydrology, Aesthetics, and Traffic are included in Chapter 3 of the FEIS/R prepared for the Doyle Drive Project.

6.0 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 2 of the FEIS/R, numerous alternatives were considered prior to the development and selection of the Preferred Alternative. The preliminary set of alternatives and access options which were considered during the early environmental review phase of the project ranged from little or no improvements to the roadway, to emphasizing transit improvements (such as high-occupancy vehicle (HOV) lanes), to rehabilitating or replacing the existing structures, to new facilities in a different location. These preliminary alternatives were developed based on four general design and/or location scenarios. These scenarios were:

- do nothing (which means the project would not be implemented, only bi-annual inspections, regular maintenance and interim repairs would occur);
- rehabilitate the existing structure;
- build a new facility in a new location; and
- rebuild a facility in the same corridor (In Corridor Concept).

Using detailed evaluation criteria, several of the initial alternatives and access options were eliminated. The remaining alternatives and access options were further refined and combined for additional review. The analysis resulted in the following six alternatives:

- Alternative 1: No-Build
- Alternative 2: Replace and Widen
- Alternative 3a: Detour Construction, Tunnel under Halleck, Direct Marina Access

- Alternative 3b: Detour Construction, Tunnel under Halleck and Girard, Signalized Marina Connector
- Alternative 4a: Detour Construction, Bridge over Halleck, Direct Marina Access
- Alternative 4b: Detour Construction, Bridge over Halleck and Girard, Signalized Marina Connector

Following completion of the preliminary environmental analysis in 2002, and development of a new alternative (Alternative 5: Presidio Parkway), additional evaluations and analyses were performed. A public meeting was held in February 2004 to inform the public of the intent to drop Alternatives 3a, 3b, 4a, and 4b while adding the Presidio Parkway Alternative. The reasons for the decision were presented at the meeting and the decision was largely based on the fact the environmental impacts resulting from the single tunnel alternatives would be more substantial while the necessary detour structure would increase construction costs and length of the construction period and thus, increase the construction-related environmental effects .

Following release of the DEIS/R in December 2005, individuals and public agency staff provided just over eight hundred comments regarding the environmental analysis and project alternatives. Based on these comments and agency/public workshops, it was determined that Alternative 5: Presidio Parkway, would best meet the purpose and need of this Doyle Drive Project, with certain modifications made to the proposed design.

In addition, the project team and agencies performed a thorough evaluation of the build alternatives in relation to the project's purpose and need, and their ability to meet the objectives identified by the project team. As part of the evaluation process, the project specific objectives, as described in Chapter 7 of the FEIS/R, were broken down into 18 evaluation criteria to assist in the more detailed screening and selection process. The criteria were selected to evaluate how well each of the alternatives satisfied the project purpose and other factors.

The alternatives were evaluated as to how well they satisfied the various criteria. Interested parties and key stakeholders developed recommendations for a preferred alternative during a workshop in July 2006. These recommendations for a preferred alternative were presented to the decision makers for a formal determination. In addition, the Authority received letters of strong support to identify the Presidio Parkway Alternative as the Preferred Alternative from the Presidio Trust (March 31, 2006) and the National Park Service (NPS) Golden Gate National Recreation Area (March 31, 2006) (see Appendix L of the FEIS/R).

The evaluation process clearly demonstrated that the Refined Presidio Parkway Alternative had the smallest net impact when the balance of benefits and impacts was considered – it had the best ability to meet the project purpose.

Of the 18 evaluation criteria, the Replace and Widen Alternative (Alternative 2) satisfied only five evaluation criteria, was neutral on seven criteria, and failed to satisfy six criteria. The Replace and Widen Alternative satisfied the safety (standard lanes, full shoulders, and center median), traffic maintenance and preservation of cultural resources criteria and was neutral on consistency with land use and minimizing air and water quality impacts. The alternative failed to satisfy the evaluation criteria related to the preservation of scenic and recreational

values, minimizing noise impacts, improving access to the park (no direct Presidio access), and replacing the facility using the parkway concept.

The Refined Presidio Parkway Alternative fully met the purpose of the project. The evaluation process also determined that the Refined Presidio Parkway Alternative satisfied 12 of the 18 evaluation criteria and was neutral on the balance of the evaluation criteria.

When compared with the Replace and Widen Alternative, the Presidio Parkway and Refined Presidio Parkway Alternatives satisfied the safety and traffic maintenance criteria (although they include slightly narrower lanes and shoulders to help reduce the facility width) and were neutral on consistency with land use, minimizing air quality and preservation of cultural resources. However, the seven additional criteria satisfied by the Refined Presidio Parkway Alternative provided a greater benefit to the recreational values of the Presidio. These criteria included the ability of the alternative to:

- preserve scenic values;
- preserve recreation values;
- minimize effects of noise and air quality on natural and recreational areas;
- minimize the effects of water quality on natural and recreational areas;
- minimize the traffic impacts on local roadways;
- improve intermodal and vehicular access to the Presidio; and
- redesign the corridor using the parkway concept.

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 provide the long-term seismic, structural and traffic safety benefits associated with replacing Doyle Drive.

Each build alternative meets the purpose of the project to improve the seismic, structural, and traffic safety on Doyle Drive. While the overall impacts associated with each alternative are similar, differences in impacts between the Replace and Widen Alternative, Presidio Parkway Alternative and Preferred Alternative can be found in the areas of visual resources, vehicular access to the Presidio, roadway runoff and pollutant loading, wetlands, geology and soils, land use, and historic features. Based on a quantitative analysis of impacts presented in the FEIS/R it can be determined the Replace and Widen Alternative, No-Detour Option would have the fewest environmental impacts and would therefore be considered the environmentally superior alternative.

Although the Replace and Widen Alternative was found to have the least impacts to the Presidio resources, it would not achieve the project major objectives to the extent that the either the Presidio Parkway Alternative or Preferred Alternative would. Most of all, the Replace and Widen Alternative would not improve intermodal and vehicular access to the Presidio nor result in a redesign of the Doyle Drive corridor as a parkway. Further, the Replace and Widen Alternative does not minimize the traffic impacts to local roads or minimize the effects of noise to the recreational and sensitive areas of the Presidio.

Access for the Replace and Widen Alternative would be available from Doyle Drive via the on- and off-ramps to Merchant Road at the Golden Gate Bridge Toll Plaza and via a right turn from southbound Richardson Avenue to Gorgas Avenue. With the Replace and Widen Alternative, the existing slip ramp providing access to the Presidio from northbound Richardson Avenue would be removed, therefore, there would be no Presidio access for northbound traffic at the east end of Doyle Drive due to geometric constraints and concerns for traffic safety. Improved access to the Presidio is a key objective identified in both principal planning documents for the Presidio, the *1994 General Management Plan Amendment (GMPA)* and *2002 Presidio Trust Management Plan (PTMP)*.

Another key objective of the project is to redesign Doyle Drive using the parkway concept presented in the *Doyle Drive Intermodal Study*. The *Intermodal Study* calls for the redesign of Doyle Drive as parkway and includes features such as: lower design speeds; roadway elements (alignment, lighting, signing) focused on the sensitivity of the surroundings; and design features and roadway alignments compatible with topography, vegetation, and other elements that contribute to the scenic qualities of the corridor. The plan also emphasizes making multi-modal and direct vehicular access into and out of the Presidio a central feature of the replacement design. The Replace and Widen Alternative maintains Doyle Drive as an elevated roadway through the Presidio. The alternative follows the footprint of the existing facility that neither conforms to the natural topography of the landscape nor to the sensitivity of the unique setting and natural habitats of the Presidio.

The layout and design of the Replace and Widen Alternative match the existing facility and maintain the existing flow and speed of traffic entering the local streets. Traffic patterns from Doyle Drive onto the local streets would be the same as with the existing facility, and in addition, there would not be traffic calming features to slow the traffic while transitioning to local roads. The layout of the Replace and Widen Alternative makes no concessions to minimize noise near sensitive receptors such as the National Cemetery, Crissy Field and Crissy Marsh nor does it improve the visual setting of the Presidio.

7.0 STATEMENT OF OVERRIDING CONSIDERATION

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 FEIR 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 Authority's Board of Commissioners finds that the mitigation measures identified in the FEIS/R and the Mitigation Monitoring Plan, when implemented, will avoid or substantially lessen nearly all of the significant effects identified in the Doyle Drive Project FEIS/R. 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 three specific areas: a) cultural resources, b) geology, and c) land use and planning.

The implementation of the Preferred Alternative will result in unavoidable significant impacts to the Presidio NHLD through the removal of historic structures and effects to the cultural landscape. The degree of impact to cultural resources will be lessened through the implementation of feasible mitigation identified in the *Programmatic Agreement* (PA) and the overall Presidio NHLD will still retain sufficient integrity to convey its historical significance. Construction of the high-viaduct segment of the Preferred Alternative will result in the permanent removal of native geological material (serpentine), which is considered a designated resource in the PTMP. There is no feasible mitigation for the removal of this designated resource. The Preferred Alternative is found to be inconsistent with some elements of various local planning documents including the PTMP, VMP and the *San Francisco General Plan*. While no feasible mitigation is available for these inconsistencies, the Project is consistent with numerous other elements of each plan.

The Authority Board finds that all feasible mitigation measures identified in the FEIS/R within the purview of the Authority will be implemented with the Project, and that the remaining significant unavoidable effects are outweighed and are 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 FEIS/R, and other evidence in the record, as follows:

- The replacement of Doyle Drive is necessary in order to provide the needed long-term, permanent improvements and to bring the roadway up to current design and safety standards. Currently, Doyle Drive has nonstandard design elements including narrow travel lanes, no fixed median barrier, no shoulders, and exit ramps with tight turning radii. Implementation of the Preferred Alternative will provide a new facility that meets all traffic and structural safety standards. Safety on the roadway will be provided with improved roadway geometry, wider lanes, the addition of inside and outside shoulders, and the separation of opposing traffic lanes with a landscaped median.
- Structurally the new facility will be based on the most current *Caltrans Seismic Design Criteria* with the road structure design based on a Magnitude 8 earthquake on the San Andreas Fault. It is essential that Doyle Drive withstand a major seismic event as it serves a vital part of the north-south link in Coastal California.
- Design features of the Preferred Alternative will provide many benefits to the Presidio. Foremost among these is direct access to the Presidio and Marina Boulevard at the eastern end of the project. Providing access directly from Doyle Drive to the Presidio is a key element of both the GMPA and the PTMP that are the documents which provide the guidelines and principles for development with the Presidio. Direct access to the Presidio is a key component of the development plans of the Presidio while enhancing

the ability of people to access the cultural, educational and recreational features of the park.

- Another key feature of the Preferred Alternative is the placement of roadway segments within tunnels that will minimize noise adjacent to sensitive areas such as the National Cemetery and Crissy Marsh. Landscaped berms between the tunnels reduce the noise and visual intrusion at Crissy Field. By placing segments of the roadway in tunnels adjacent the San Francisco National Cemetery and Main Post area, the visual character of these areas is enhanced. The elevated road will be removed from the landscape improving the overall intactness and unity of the existing visual elements and it will open up new views from the cemetery and Main Post areas. In addition, the area over the tunnels will create more open space within the Presidio and allow for improved connectivity between the Main Post and Crissy Field. The parkway design of the roadway, including the landscaped median, best fits with the overall setting and context of the Presidio.
- Transit connections between Golden Gate Transit, Muni and PresidiGo vehicles will be improved by the creation of extended bus bays along Richardson Avenue. The extended bus bays will accommodate up to four buses and will keep the buses out of the main flow of traffic along Richardson Avenue. Improved crosswalks will provide safer and enhanced pedestrian circulation and access to the bus stops in the area. The large bus bays will facilitate transfers between the different service providers and will allow for safer merging capability for the buses.
- Implementation of the Doyle Drive Project will improve the water quality of the San Francisco Bay. Unlike the existing facility, the new roadway will include methods for the capture and treatment of stormwater runoff. Currently, stormwater runoff is discharged to existing drainage facilities without treatment. The new roadway will be designed to all standards set forth in municipal stormwater permits and state and regional stormwater management guidelines. The treatment controls associated with the new roadway will provide a net benefit to stormwater runoff quality and the quality of receiving waters. In addition, the new roadway will include two tunnel segments that will reduce the total area of impervious surface subject to stormwater runoff by approximately 19 percent when compared to the existing facility.
- Due to the unique environment and setting of the National Park/National Historic Landmark District, the facility plans and design incorporate the principles of context sensitive design and sustainability. Efforts were made to:
 - reduce the disturbance to the bluffs and recreate the bluff north of the tunnels;
 - increase light penetration in the vicinity of Tennessee Hollow by providing greater separation between the northbound and southbound roadways;
 - calm traffic and reduce speeds before entering the city streets with increased road curvature;
 - align Girard Road to preserve the streetscape in front of the Gorgas Avenue warehouses; preserve the majority of landscape west of the Palace of Fine Arts by reducing the northbound off-ramp from two lanes to one lane; and

- design the overall facility to avoid and minimize impacts to cultural resources including historic buildings, historic Halleck streetscape and historic bluff.

The parkway concept of the Preferred Alternative was intended to replace Doyle Drive within the context and setting as a unit of the National Park system. As such, the design of the Preferred Alternative follows the natural contours of the land, includes tunnel segments, landscaped medians, and is sensitive to Park resources such as the Crissy Field Center, Crissy Marsh and Tennessee Hollow riparian corridor. For the visitors to the Park, the Preferred Alternative would be physically less intrusive than the other alternatives and with the use of tunnels, would enhance the views for users of the Park while providing new connections to Battery Blaney, Main Post and Crissy Field. By minimizing impacts to the recreational resources within the Park and enhancing visual and physical connections in certain area, the Preferred Alternative would preserve and enhance those resources for the enjoyment of all park users.

8.0 MITIGATION MONITORING PLAN

Pursuant to CEQA (Public Resources Code § 21081.6), a Mitigation Monitoring Plan (MMP) will need to be adopted by the San Francisco County Transportation Authority. The MMP provides the means to track compliance with the mitigation measures developed for the Project. A summary of the mitigation measures is provided in Appendix K of the FEIS/R while the complete MMP, which details all measures to be implemented, is provided under a separate cover.

9.0 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 DEIS/R was circulated and the FEIS/R was independently reviewed and analyzed by the Authority. With the adoption of the findings present here, the San Francisco County Transportation Authority finds that the FEIS/R reflects its independent judgment.

10.0 ACRONYMS

ACHP	Advisory Council on Historic Preservation
BAAQMD	Bay Area Air Quality Management District
BMP	Best Management Practice
CEQA	California Environmental Quality Act
dba	Decibels
DEIS/R	Draft Environmental Impact Statement/Report
EPA	United States Environmental Protection Agency
ESA	Environmentally Sensitive Area
FEIS/R	Final Environmental Impact Statement/Environmental Impact Report
FHWA	Federal Highway Administration
GGBHTD	Golden Gate Bridge, Highway and Transportation District
GGNRA	Golden Gate National Recreation Area
GMPA	Final General Management Plan Amendment
HOV	High-occupancy vehicle
NAC	Noise abatement criteria
NEPA	National Environmental Policy Act
NHLD	National Historic Landmark District
NPS	National Park Service
MMP	Mitigation Monitoring Plan
MTC	Metropolitan Transportation Commission
NOP	Notice of Preparation
PA	Programmatic Agreement
PTMP	Presidio Trust Management Plan
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
SFPUC	San Francisco Public Utilities Commission
SFRWQCB	San Francisco Regional Water Quality Control Board
SHPO	State Historic Preservation Officer
SMP/CP	Site Management Program/Contingency Plan
SWMP	Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan
TCD	Temporary Construction Detour
USACE	United States Army Corps of Engineers
VA	United States Department of Veteran Affairs
VMP	Vegetation Management Plan



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Mitigation Monitoring 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 (MMP) that ensures the mitigation measures will be implemented (Public Resources Code Section 21081.6[a]). The MMP includes those mitigation measures identified in the EIR that are the responsibility of the agency to implement. CEQA's mandate is rather brief and gives agency's leeway in designing their MMPs: 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 MMP is to ensure that the mitigation measures adopted by the lead agency, San Francisco County Transportation Authority (the Authority), 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]).

MMP Approach

The Authority, as the lead agency under CEQA, has developed this MMP for the proposed South Access to the Golden Gate Bridge, Doyle Drive project. The MMP contained herein is intended to satisfy the requirements of CEQA as they relate to the Final Environmental Impact Report/Environmental Impact Statement (FEIS/R) for the proposed project. This MMP is intended to be used by the Authority, the California Department of Transportation (Caltrans), Federal Highway Administration (FHWA) and mitigation monitoring personnel to ensure compliance with mitigation measures during project implementation. Mitigation measures identified in this MMP were developed in the FEIS/R prepared for the proposed project.

The South Access to the Golden Gate Bridge, Doyle Drive project FEIS/R 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 MMP is to ensure the effective implementation and enforcement of adopted mitigation measures and permit conditions. The MMP 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 Mitigation Manager. The table 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 project proponent will be responsible for fully understanding and effectively implementing the mitigation measures contained within the MMP. The Authority 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 project's construction inspectors will undertake regular inspections of the job site to ensure that contractors are implementing the mitigation measures and complying with their contract. The Project Mitigation Manager will be responsible for ensuring that all mitigation measures are carried out. During construction of the project, the project proponent will assign inspectors who will be responsible for field monitoring of mitigation measure compliance. The inspectors will report to Project Mitigation Manager and will be thoroughly familiar with permit conditions and the MMP. In addition, the inspectors will be familiar with construction contract requirements, construction schedules, standard construction practices, and mitigation techniques. 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, the Project Mitigation Manager will be responsible for the following activities:

- On-site, 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 MMP.
- 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 MMP.
- 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 Mitigation Manager shall immediately contact the construction representative. The Project Mitigation 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.



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Appendix A: Mitigation and Monitoring Plan
Doyle Drive Project

The Doyle Drive project proponent commits to maintaining the ongoing coordination and with the projects partner agencies. This mitigation monitoring plan incorporates by reference the Final Environmental Impact Statement/ Report (FEIS/R) including Appendix K and all associated technical reports prepared for the project.

Impact	Mitigation Measure	Reference	Implementation Timing	Compliance Verification Mechanism	Person/Party Responsible
Land Use and Planning					
Project construction activities may conflict with on-going Presidio Trust development activities	Coordinate with the Presidio Trust regarding location and duration of work in Presidio whenever feasible	FEIS/R Section 3.2.1	Pre-Construction and Construction	Coordination meetings with the Presidio Trust	SFCTA/Caltrans and Contractor
	Project will provide initial rough grading for the expansion of Tennessee Hollow along the Quartermaster Reach	FEIS/R Section 3.2.1	Construction	Project plans to include initial rough grading for Tennessee Hollow	Contractor
Project construction would require the removal of 8 buildings and lower half of another which would impact the development plans of the Presidio Trust as described in the Presidio Trust Management Plan (PTMP)	The PTMP guidelines regarding future demolition will be adjusted accordingly	FEIS/R Section 3.2.1	After project approval	Update of PTMP	Presidio Trust
Community Impact					
Potential disruption of utility service during project construction	Coordinate with the Presidio Trust and various utility providers regarding temporary and permanent utility relocations	FEIS/R Section 3.2.4	Construction	Utility relocation plans and coordination meetings with the Presidio Trust and utility providers	SFCTA/Caltrans and Contractor
Parking					
Project construction would result in the temporary shortage of approximately 843 parking spaces during the construction period	The Parking Study will be updated in coordination with the Presidio Trust to determine locations for available parking	FEIS/R Section 3.2.5	Design	Parking Study	SFCTA
	Identify areas for use as temporary replacement parking such as the Parade Grounds parking area. Approximately 843 temporary spaces will be required during the construction period	FEIS/R Section 3.2.5	Design	Project plans to identify potential temporary parking areas	SFCTA/Caltrans
	Install temporary parking areas	FEIS/R Section 3.2.5	Construction	Temporary parking areas installed in accordance with project plans	Contractor
	PresidiGo shuttle service will be enhanced to transport individuals from the temporary parking locations to other areas within the Presidio and Palace of Fine Arts	FEIS/R Section 3.2.5	Construction	Coordination meetings with Presidio Trust and SF Dept of Recreation and Parks	SFCTA/Caltrans/ Presidio Trust
	Provide proper signage to inform motorists of any parking changes and to direct them to available parking facilities. Signage to be coordinated with Presidio Trust	FEIS/R Section 3.2.5	Construction	Install signage	Contractor
Implementation of the project may result in a permanent unmet parking demand of 142 spaces	Identify potential areas for placement of a new permanent parking facility such as the area west of Halleck Street and south of the Main Post tunnels and the southeast corner of Girard and Eddie Roads	FEIS/R Section 3.2.5	Design	Project plans to include new parking facility as identified in coordination with the Presidio Trust	SFCTA/Caltrans

Impact	Mitigation Measure	Reference	Implementation Timing	Compliance Verification Mechanism	Person/Party Responsible
Relocation					
Construction activities may disturb tenants in Building 106	The tenants of Building 106 will be temporarily relocated to another location within the Presidio	FEIS/R Section 3.2.5	Construction	Building vacated during underpinning installation	SFCTA/Caltrans
Construction of the project will permanently remove 8 buildings and partially remove another	Relocation assistance services will be provided to all affected renters and tenant businesses. Property owners will be compensated in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act for 1970 and other applicable law.	- FEIS/R Section 3.2.5 - Uniform Relocation Assistance and Real Property Acquisition Policies Act for 1970	Design	Right of Way certification	Caltrans
Traffic and Transportation					
Construction of the project would result in increased traffic volumes on local roads due to additional vehicles involved in construction activities	Prepare final TMP and include Presidio Trust and GGBTHD in review	- FEIS/R Section 3.2.8 - Caltrans Standard Specifications, Section 12	Design and Pre-Construction	TMP will provide specific strategies for addressing traffic impacts	SFCTA and Caltrans
	Implement the Transportation Management Plan (TMP). The TMP will include strategies for items such as conducting public outreach, providing motorist information incident management, and operations of construction staging and detours.	- FEIS/R Section 3.2.8 - Caltrans Standard Specifications, Section 12	Construction	TMP will provide specific strategies for addressing traffic impacts	SFCTA/Caltrans and Contractor
During construction, geometric restrictions and pavement conditions may create the need for restricted traffic movements or reduce traffic speeds	Implement the Transportation Management Plan (TMP). The TMP will include strategies for items such as conducting public outreach, providing motorist information incident management, and operations of construction staging and detours.	- FEIS/R Section 3.2.8 - Caltrans Standard Specifications, Section 12	Construction	TMP will provide specific strategies for addressing traffic impacts	SFCTA/Caltrans and Contractor
Construction of the project will require a minimum of two complete weekend closures of Doyle Drive	Implement the Transportation Management Plan (TMP). The TMP will include strategies for items such as conducting public outreach, providing motorist information incident management, and operations of construction staging and detours.	- FEIS/R Section 3.2.8 - Caltrans Standard Specifications, Section 12	Construction	TMP will provide specific strategies for addressing traffic impacts, specifically an extensive public notification campaign	SFCTA/Caltrans
Construction activities will require the intermittent need for local street closures within the Presidio	Implement the Transportation Management Plan (TMP). The TMP will include strategies for items such as conducting public outreach, providing motorist information incident management, and operations of construction staging and detours.	- FEIS/R Section 3.2.8 - Caltrans Standard Specifications, Section 12	Construction	TMP will provide specific strategies for addressing traffic impacts	SFCTA/Caltrans and Contractor
	Precondition surveys of haul roads and detours with restoration to existing condition following construction	- FEIS/R Section 3.2.8	Pre-Construction and Post Construction	Road surveys	Contractor
Construction activities will require Halleck Street to be closed for approximately 2 years	Implement the Transportation Management Plan (TMP). The TMP will include strategies for items such as conducting public outreach, providing motorist information incident management, and operations of construction staging and detours.	- FEIS/R Section 3.2.8 - Caltrans Standard Specifications, Section 12	Construction	TMP will provide specific strategies for addressing traffic impacts	SFCTA/Caltrans and Contractor
	Provide alternate pedestrian/bicycle paths in the vicinity of Halleck Street during the temporary closure of Halleck Street	FEIS/R Section 3.2.8	Construction	Provide temporary alternate pedestrian/bicycle path and appropriate signage	Contractor
Implementation of the project may result in a degradation of traffic operations	Reserve the right of way along westbound Girard Rd to construct a second lane	FEIS/R Section 3.2.8	Design	Project plans to include the reserved right of way	SFCTA/Caltrans
	Monitor traffic operations and adjust signal timing to optimize traffic operations	FEIS/R Section 3.2.8	Post Construction	Doyle Drive Project traffic monitoring plan	SFCTA/Caltrans

Impact	Mitigation Measure	Reference	Implementation Timing	Compliance Verification Mechanism	Person/Party Responsible
Transit					
During construction of the project there may be effects to transit operations along the project corridor	Implement the Transportation Management Plan (TMP). The TMP will include strategies for items such as conducting public outreach, providing motorist information incident management, and operations of construction staging and detours. In addition, the TMP will address possible bus re-routing while providing public information regarding any new, temporary routes within the project study area	- FEIS/R Section 3.2.8 - Caltrans Standard Specifications, Section 12	Construction	TMP detailing strategies for addressing transit impacts	SFCTA/Caltrans and Contractor
Visual and Aesthetics					
Construction activities will change to the visual character of the project area due to the removal of existing landscaping and vegetation	Re-vegetate all disturbed areas as soon as practicable following agreed upon design guidelines with appropriate native vegetation in natural areas and appropriate ornamental vegetation types in landscaped areas as determined in consultation with the Presidio Trust.	- FEIS/R Section 3.2.10 - Design Guidelines - Presidio Vegetation Management Plan - Caltrans Standard Specifications, Section 16	Construction and Post Construction	- Doyle Drive Project Design Guidelines - Doyle Drive Project Revegetation Plan	SFCTA/Caltrans and Contractor
	Monitor restored areas following plant installation using standard ecological methods that qualitatively estimate plant cover and document survival rates and growth characteristics. Monitoring and replanting will continue until the performance criteria developed in consultation with the Presidio Trust have been met.	- FEIS/R Section 3.2.10 - Design Guidelines - Presidio Vegetation Management Plan	Post Construction	Vegetation Monitoring Plan	SFCTA/Caltrans
Cultural Resources					
Adverse affect to the Presidio National Historic Landmark District (NHL) including the cultural landscape, contributors to the NHL and to individual historic properties	Implement the measures detailed in the Programmatic Agreement and Treatment Plans including but not limited to: - Development of architectural criteria - Conduct vibration studies - Recordation of buildings and the cultural landscape in accordance with the requirements of the Historic American Building Survey /Historic American Engineering Record/ Historic American Landscape Survey programs - Preparation of historic structures reports and condition assessment reports for affected buildings, structures, and cultural landscape features - Stabilization /monitoring /security for buildings during construction - Protocols for archaeological monitoring and for the treatment of archaeological resources and collections management and curation of recovered materials - Development of specifications for the building that will be relocated during construction and for buildings that will be altered to accommodate construction - Conduct architectural resource protection measures and cultural landscape monitoring - Rehabilitation of buildings and restoration of cultural landscape features - Conduct minor repairs and reconstruction - Salvage of demolished buildings and structures	- FEIS/R Section 3.2.11 - Programmatic Agreement - Treatment Plans	Design, Pre-Construction, Construction and Post Construction	• Preparation of Built Environment Treatment Plan • Preparation of Archaeology Treatment Plan • Preparation of Treatment Implementation Plan • Preparation of reports and documentation as required by Treatment Plans • Treatment Oversight Panel Meetings • Semi-annual mitigation monitoring reports	SFCTA/Caltrans and Treatment Oversight Panel

Impact	Mitigation Measure	Reference	Implementation Timing	Compliance Verification Mechanism	Person/Party Responsible
Hydrology, Water Quality and Stormwater					
Construction of the project will involve the potential discharge of contaminated groundwater during construction dewatering	Prior to the initiation of dewatering, characterize the quality of groundwater in the vicinity of dewatering operations	- FEIS/R Section 3.3.1 - Caltrans Construction Site Stormwater Quality Sampling Guidance Manual - Caltrans Construction Best Management Practices (BMPs) Field Manual	Pre-Construction	Report detailing groundwater quality	Contractor
	Perform dewatering in conformance with the NPDES Caltrans Statewide Stormwater Permit, Stormwater Management Plan (SWMP), and any separate dewatering permit issued by the San Francisco Regional Water Quality Control Board (SFRWQCB).	- FEIS/R Section 3.3.1 - National Pollution Discharge Elimination System (NPDES) Statewide Stormwater Permit - Caltrans SWPP/WPCP Preparation Manual March 2007 - Caltrans Standard Specifications, Section 20 - Caltrans Construction Site Best Management Practices (BMPs) Manual	Construction	- Stormwater Management Plan - NPDES Permit - SFRWQCB Permits	Contractor
	Comply with the San Francisco Public Utilities Commission (SFPUC) pretreatment standards and other requirements for discharge to the City's sewer system	- FEIS/R Section 3.3.1 - SFPUC Construction Site Runoff Pollution Prevention Procedures	Pre-Construction and Construction	Specifications to include appropriate BMPs	Contractor
	Coordinate with the Presidio Trust, NPS, SFPUC, SFRWQCB, and Caltrans to determine acceptable water quality thresholds for discharge	- FEIS/R Section 3.3.1	Construction	Coordination meetings with Presidio Trust, NPS and SFPUC	SFCTA/Caltrans and Contractor
Project construction may result in the potential for soil erosion, runoff and sedimentation build-up which may result in blockage of flows, potentially resulting in localized ponding or flooding and impacts to aquatic habitat. In addition, it is possible that suspended sediment may affect aquatic biota in receiving waters. During construction, sediment may be transported by the runoff and discharged into the Bay, resulting in water quality degradation.	Implement the provisions of the Stormwater Pollution Prevention Plan (SWPPP)	- FEIS/R Section 3.3.1 - Caltrans SWPP/WPCP Preparation Manual March 2007	Design and Pre-Construction	SWPPP	Contractor
With implementation of the project, low-lying portions of the facility may be subject to rare flooding events caused by tsunami wave run-up and/or extreme high tides	Design flood protection features of either landscaped berms or barrier structures with crests greater than 3.35 meters (11 feet) NAVD	FEIS/R Section 3.3.1	Design	Project plans to include flood protection features	SFCTA/Caltrans
Construction and operation of the tunnel upgradient of the bluffs could alter or disrupt groundwater flow, potentially impacting existing plants that rely on continuously emerging groundwater	Use shoring system to minimize groundwater intrusion into below-ground work areas	FEIS/R Section 3.3.1	Construction	Specifications to include performance requirements for shoring system to minimize groundwater disturbance	Contractor
	Investigate groundwater flow and include use of high-permeable strip drains consisting of a fabricated geocomposite core within a filter fabric around the tunnel box to collect groundwater	FEIS/R Section 3.3.1	Design	Project plans to include strip drains as needed	SFCTA/Caltrans
	Install high-permeable strip drains around the tunnel box to collect groundwater	FEIS/R Section 3.3.1	Construction	Project plans to include strip drains as needed	Contractor

Impact	Mitigation Measure	Reference	Implementation Timing	Compliance Verification Mechanism	Person/Party Responsible
With implementation of the project, the surface and near-surface hydrology in the vicinity of the Main Post tunnel and Palace of Fine Arts Lagoon may be altered	Demonstrate through soil investigation and detailed hydraulic calculation that project dewatering would not affect the Palace of Fine Arts Lagoon levels or enter into agreement with the SFPUC to contribute to monitoring and replenishment costs during project dewatering	FEIS/R Section 3.3.1	Design and Construction	Prepare hydraulic calculations or develop agreement with SFPUC for monitoring of lagoon and replenishment if needed	SFCTA/Caltrans
	Investigate the potential disruption to surface and near-surface hydrology and include a permeable gravel envelope and/or strip drains in the project plans as needed	FEIS/R Section 3.3.1	Design	Project plans to contain measures to preserve surface and near-surface hydrology based on results of hydrologic investigation	SFCTA/Caltrans
	Construct the tunnel box with a permeable gravel envelope and/or strip drains as needed	FEIS/R Section 3.3.1	Construction	Project plans to include a permeable gravel envelope and/or strip drains as needed	Contractor
Roadway runoff from Doyle Drive polluting receiving waters	Two treatment options are proposed for implementation to eliminate or reduce pollutants in runoff from project: - Stormwater Treatment Option 1. Stormwater runoff from proposed roadway, including washdown water (water from cleaning the tunnel) and incidental runoff from within tunnels will be collected and discharged to existing sanitary sewer system. Runoff will then be treated at City and County of San Francisco wastewater treatment facility. - Stormwater Treatment Option 2. Runoff from new roadway will be treated prior to discharge to surface waters, to extent feasible, at or near new structure. Caltrans will coordinate with the Trust and NPS during permanent treatment control selection process. The project will incorporate, to maximum extent practicable (MEP), treatment of roadway pollutants in runoff prior to discharge to any surface water systems	FEIS/R Section 3.3.1	Design	Project plans to include stormwater treatment	SFCTA/Caltrans
Geology/Soils/Seismic/Topography					
With implementation of the project, the new facility would be subject to seismic events	Seismic design for structures will be based on Caltrans Seismic Design Criteria (Caltrans, 2001). Road structure designs will be based on a Magnitude 8 earthquake on San Andreas Fault since it is the governing fault for this project. To protect structures that will be placed in soils vulnerable to liquefaction, special design features such as deep piles will be incorporated into the structures.	FEIS/R Section 3.3.2	Design	Project plans to include standard and special design features for seismic	SFCTA/Caltrans
Construction of the project has the potential for disturbance of serpentinite bedrock	Prior to project construction, geotechnical borings from the site will be reviewed to identify areas of serpentinite bedrock that will be disturbed during project construction.	FEIS/R Section 3.3.2	Pre-Construction	Report identifying areas of serpentinite bedrock	SFCTA/Caltrans
	Prepare and submit to the Bay Area Air Quality Management District (BAAQMD) an Asbestos Dust Mitigation Plan in accordance with the Asbestos Airborne Toxic Control Measure for Construction, Grading Quarrying, and Surface Mining Operations	FEIS/R Section 3.3.2	Pre-Construction	Asbestos Dust Mitigation Plan	Contractor

Impact	Mitigation Measure	Reference	Implementation Timing	Compliance Verification Mechanism	Person/Party Responsible
	Notify the BAAQMD at least 14 days prior to construction	FEIS/R Section 3.3.2	Pre-Construction	BAAQMD Notification	Contractor
	Provide workers with appropriate training and equipment to detect and handle the material when encountered	FEIS/R Section 3.3.2	Pre-Construction and Construction	Training logs and personal protection equipment	Contractor
Construction of the project would result in the removal of groundcover and excavation of material	All earthwork will conform to the requirements of Section 19 (Earthwork) of the most current Caltrans Standard Specifications and will involve: - Soils excavated in one location will be reused as fill or backfill in another location to the extent possible provided it meets the appropriate requirements - Unsuitable materials will be appropriately disposed of offsite	- FEIS/R Section 3.3.2 - Caltrans Standard Specifications, Section 19 - Caltrans Construction Site Best Management Practices (BMPs) Manual - Caltrans Construction Best Management Practices (BMPs) Field Manual	Construction	Project plans to contain temporary erosion control measures. Re-vegetate all disturbed areas in each landscaping zone on completion of all construction activities in zone.	Contractor
	An Earthwork Management Plan will be developed in coordination with the Trust and NPS.	FEIS/R Section 3.3.2	Pre-Construction	Doyle Drive Project Earthwork Management Plan	Contractor
	Soils with serpentine will be tested to determine suitability for on-site use as fill materials	FEIS/R Section 3.3.2	Construction	Soil test results	Contractor

Impact	Mitigation Measure	Reference	Implementation Timing	Compliance Verification Mechanism	Person/Party Responsible
Hazardous Waste/Materials					
During project construction, workers may be exposed to historic hazardous materials and existing aerially deposited contaminants	Prepare a Site Management Program/Contingency Plan (SMP/CP)	- FEIS/R Section 3.3.3 - Caltrans Standard Special Provision S5-740	Pre-Construction	Site Management Program/Contingency Plan	Contractor
	Prepare a Health and Safety Plan (HASP)	FEIS/R Section 3.3.3	Pre-Construction	Health and Safety Plan	Contractor
	Provide personal protective equipment for in accordance with the California Division of Occupational Safety and Health (DOSH) regulations	FEIS/R Section 3.3.3	Construction	Appropriate personal protective equipment	Contractor
	Perform soil investigations prior to construction and test for aerially deposited metals	FEIS/R Section 3.3.3	Pre-Construction	Soil test results	Contractor
During project construction, workers may be exposed to naturally-occurring asbestos	All earthwork will conform to the requirements of Section 19 (Earthwork) of the most current Caltrans Standard Specifications and will involve: - Soils excavated in one location will be reused as fill or backfill in another location to the extent possible provided it meets the appropriate requirements - Unsuitable materials will be appropriately disposed of offsite	- FEIS/R Sections 3.3.2 and 3.3.3 - Caltrans Standard Specifications, Section 19 - Caltrans Construction Site Best Management Practices (BMPs) Manual - Caltrans Construction Best Management Practices (BMPs) Field Manual	Construction	Project plans to contain temporary erosion control measures. Re-vegetate all disturbed areas in each landscaping zone on completion of all construction activities in zone.	Contractor
	An Earthwork Management Plan will be developed in coordination with the Trust and NPS.	FEIS/R Section 3.3.2 and 3.3.3	Pre-Construction	Doyle Drive Project Earthwork Management Plan	Contractor
	Soils with serpentine will be tested to determine suitability for on-site use as fill materials	FEIS/R Section 3.3.2 and 3.3.3	Construction	Soil test results	Contractor
During project construction, workers may be exposed to contaminated groundwater	Prior to the initiation of dewatering, characterize the quality of groundwater in the vicinity of dewatering operations	- FEIS/R Section 3.3.1 and 3.3.3 - Caltrans Construction Site Stormwater Quality Sampling Guidance Manual - Caltrans Construction Best Management Practices (BMPs) Field Manual	Pre-Construction	Report detailing groundwater quality	Contractor
	Perform dewatering in conformance with the NPDES Caltrans Statewide Stormwater Permit, Stormwater Management Plan (SWMP), and any separate dewatering permit issued by the San Francisco Regional Water Quality Control Board (SFRWQCB).	- FEIS/R Section 3.3.1 and 3.3.3 - National Pollution Discharge Elimination System (NPDES) Statewide Stormwater Permit - Caltrans SWPP/WPCP Preparation Manual March 2007 - Caltrans Standard Specifications, Section 20 - Caltrans Construction Site Best Management Practices (BMPs) Manual	Construction	- Stormwater Management Plan - NPDES Permit - SFRWQCB Permits	Contractor

Impact	Mitigation Measure	Reference	Implementation Timing	Compliance Verification Mechanism	Person/Party Responsible
During construction, workers may be exposed to building demolition hazardous materials	Perform lead-based paint survey and asbestos-containing materials survey prior to building demolition	FEIS/R Section 3.3.3	Pre-Construction	Lead-based paint and asbestos test results	Contractor
	Perform any lead and asbestos abatement activities by trained workers under direction of the HASP	FEIS/R Section 3.3.3	Construction	Training logs and personal protection equipment	Contractor
	Soils near structures potentially affected by lead-based paint will be investigated and remediated, if warranted, in accordance with the Presidio-Wide Lead-Based Paint in Soil Plan.	- FEIS/R Section 3.3.3 - Presidio-Wide Lead-Based Paint in Soil Plan	Pre-Construction	Soil test results	Contractor
Air Quality					
Project construction may result in the generation of criteria pollutant emissions from construction activities and equipment/vehicles	Implement BAAQMD Guidelines for basic dust control procedures including procedures such as: - Water all active construction areas at least twice daily - Cover all trucks hauling soil, sand and other loose materials or require all trucks to maintain at least 0.6 meter (2 feet) of freeboard. - Sweep streets (using reclaimed water if possible) at the end of each day if visible soil material is carried onto adjacent paved roads	- FEIS/R Section 3.3.4 - BAAQMD Guidelines - Caltrans Standard Specifications, Section 10 and 1	Construction	BAAQMD Guidelines	Contractor
	Use control technologies on construction equipment in order to reduce emissions per the Tier 4 emission standards which are to be phased in over the period of 2008-2015	- FEIS/R Section 3.3.4 - EPA Tier 4 Emission Standards	Construction	Appropriate control technologies per EPA Tier 4 emission standards	Contractor
	Develop a Construction Emissions Mitigation Plan to include measures for dust control, source control and administrative control	- BAAQMD Guidelines	Design	Construction Emissions Mitigation Plan	SFCTA/Caltrans
	Implement measures of the Construction Emissions Mitigation Plan	- BAAQMD Guidelines	Construction	Construction Emissions Mitigation Plan	Contractor
Noise					
During construction of the project there will be temporary noise increase resulting from construction activities	The use of soundproofing and quieter pavement surfaces would be explored in detail as part of this project.	- FEIS/R Section 3.3.5	Design	Project plans to include noise reduction means if determined feasible and reasonable	SFCTA/Caltrans
	Prepare a Construction Noise Plan	- FEIS/R Section 3.3.5 - Caltrans Standard Specifications, Sections 5 and 7 - City and County of San Francisco Dept of Public Works Standard Specifications	Pre-Construction	Doyle Drive Project Construction Noise Plan	Contractor
	Impact pile driving will not be used within 60 meters (200 feet) of historic structures. Subject to testing results, alternative methods of pile placement, including cast in drilled hole (CIDH) pile placement, screw piles or press-in piles will be used.	- FEIS/R Section 3.3.5	Construction	Project specifications to include limits of pile driving and alternate methods of pile placement	Contractor
	Adhere to noise control specifications found in the Caltrans Standard Specifications and Caltrans Standard and Special Specifications.	Caltrans Standard Specifications, Section 7	Construction	Install noise monitoring devices to monitor construction noise	Contractor
	Perform noise field monitoring of construction impacts limited to sensitive areas and to times when construction activities are occurring	FEIS/R Section 3.3.5	Construction	Noise monitoring results	SFCTA/Caltrans

Impact	Mitigation Measure	Reference	Implementation Timing	Compliance Verification Mechanism	Person/Party Responsible
During construction there will be an increase in noise levels associated with the temporary construction detour	Due to the sensitive nature of the programs offered at the Crissy Field Center, the operations of the Center will be temporarily relocated to another site within the Presidio during the construction period	FEIS/R Section 3.3.5	Pre-Construction	Relocation of the Crissy Center	SFCTA/Caltrans
Vibration					
During construction there may be temporary vibration impacts due to construction equipment and activities	Appropriate construction vibration limits will be incorporated in the construction documents. The recommended ground vibration limits are a PPV not exceeding 5 mm/sec (0.20 in/sec) next to the closest facades of wood-framed historical buildings in good condition, and a PPV not exceeding 2 mm/sec (0.08 in/sec) next to the closest facades of historical buildings that are susceptible to damage (buildings of masonry construction and other buildings in a poor structural condition)	- FEIS/R Section 3.3.5 - Caltrans Standard Specifications, Section 10	Design	Project specifications to include vibration limits for construction activities in the vicinity of sensitive receptors	Contractor
	Impact pile driving will not be used within 60 meters (200 feet) of historic structures. Subject to testing results, alternative methods of pile placement, including cast in drilled hole (CIDH) pile placement, screw piles or press-in piles will be used.		Construction	Project specifications to include limits of pile driving and alternate methods of pile placement	Contractor
	Monitor vibrations and consider using lighter rollers when compacting soil within 20 meters (65 feet) of historical buildings that are susceptible to damage		Construction	Vibration monitoring results	Contractor
	Vibratory rollers will not be stopped or started near sensitive buildings to avoid resonance effects		Construction	Project specifications to include vibratory roller operation specifics	Contractor
	Demolition operations will be modified as necessary to reduce the vibrations caused by dropping demolished viaduct structures onto the ground near historical buildings		Construction	Project specifications to include demolition operation guidelines	Contractor
	Demolished sections of the viaduct will be placed as far as possible from the historic buildings before they are broken up		Construction	Project specifications to include demolition operation guidelines	Contractor
	Buildings that would be affected by demolition or construction activities will be inspected before work begins		Pre-Construction	Building inspection reports	Contractor
	Crack monitors will be installed where any substantial existing cosmetic or structural cracks are found in the pre-construction surveys and checked as construction proceeds. These buildings will be inspected immediately after completing the activity		Pre-Construction and Construction	Crack monitor results and post construction survey results	Contractor

Impact	Mitigation Measure	Reference	Implementation Timing	Compliance Verification Mechanism	Person/Party Responsible
	Before and during construction activities that will generate high levels of ground vibration, vibration levels will be monitored next to the facades of the closest historical buildings		Pre-Construction and Construction	Vibration monitoring results	Contractor
	The contractor will give 30-day written notice via mail to residents and building occupants before work begins near their buildings		Pre-Construction	Written notifications	Contractor
Energy					
The project will result in direct and indirect oil consumption	Promote location material production facilities on-site or within close proximity to project site	FEIS/R Section 3.3.6	Construction	Coordinate potential sites with Presidio Trust and monitor material production locations	Contractor
	Encourage use newer, more efficient vehicles and machinery	FEIS/R Section 3.3.6	Construction	Monitor construction vehicles and machinery	Contractor
	Encourage workers to carpool or take transit to and from the work site	FEIS/R Section 3.3.6	Construction	Periodic survey of workers mode of transportation to and from work site	Contractor
Natural Communities					
During project construction there will be temporary impacts to vegetation due to trampling which can result in erosion, biological community fragmentation, soil and root compaction, and plant mortality	Develop a General Biological Resource Monitoring Program to provide the guidelines for effectively administering biological monitoring. The plan will outline the functions of biological monitoring and include things such as (1) planting oversight (2) monitor revegetation progress; (3) guide remedial actions as needed, such as plant replacement, so that performance criteria and permit conditions are met; and (4) produce annual reports	- FEIS/R Section 3.4.1 - Caltrans Standard Specifications, Section 16	Pre-Construction	Doyle Drive Project Biological Resource Monitoring Program	SFCTA/Caltrans
During project construction there may be temporary impacts to vegetation due to dust covering the leaves of plants and reducing the light and gas exchange	Implement the procedures outlined in the Biological Resource Monitoring Program	- FEIS/R Section 3.4.1 - Caltrans Standard Specifications, Section 16	Construction and Post Construction	Periodic monitoring reports	SFCTA/Caltrans
Project construction activities will result in the removal of vegetation	Develop a Vegetation Restoration Plan in accordance with the Presidio Vegetation Management Plan and standard NPS and Trust restoration practice. The plan will outline detailed procedures for restoration, revegetation and monitoring.	- FEIS/R Section 3.4.1 - Presidio Vegetation Management Plan - Executive Order 13112	Pre-Construction	Doyle Drive Project Vegetation Restoration Plan	SFCTA/Caltrans
	Implement the procedures outlined in the Vegetation Restoration Plan. The Trust and the NPS are expected to manage the revegetated areas after the accepted performance criteria have been met.		Construction and Post Construction	Periodic monitoring reports	SFCTA/Caltrans

Impact	Mitigation Measure	Reference	Implementation Timing	Compliance Verification Mechanism	Person/Party Responsible
Wetlands and Other Waters of the United States					
Project construction activities will temporarily disturb wetlands and waters of the U.S.	Temporary wetland impacts will be mitigated with in-kind, in-place restoration following construction at a 1:1 ratio	FEIS/R Section 3.4.2	Post Construction	Successful restoration	SFCTA/Caltrans
Construction of the new facility will permanently remove 0.21 hectare (0.52 acres) of USACE Jurisdictional and Cowardin wetlands	Develop a Wetland Mitigation/Compensation Plan which will outline strategies for mitigation of permanent and indirect wetland impacts including (1) wetland creation (2) intensive wetland enhancement and (3) wetland enhancement. The plan will identify potential restoration and enhancement sites, identify compensation measures and detail monitoring efforts.	FEIS/R Section 3.4.2	Pre-Construction	Wetland Restoration and Enhancement Mitigation Plan	SFCTA/Caltrans
	Implement the Wetland Mitigation/Compensation Plan	FEIS/R Section 3.4.2	Pre-Construction, Construction, and Post Construction	Conduct monitoring and reporting as described in Wetland Restoration and Enhancement Mitigation Plan	SFCTA/Caltrans
Implementation of the project may lead to potential effects to riparian habitat in the vicinity of the bluffs as a result of tunneling upslope of the bluffs	Advance wetland creation will occur in order to ensure that this habitat is available during and after construction. As part of the advanced wetland creation, pre- and post construction monitoring done in coordination with the Presidio Trust will be carried out.	FEIS/R Section 3.4.2	Pre-Construction and Post Construction	Wetland monitoring results	SFCTA/Caltrans and Presidio Trust
Implementation of the project may lead to indirect impacts to wetlands resulting from tunneling upslope of the bluffs. Placement of the tunnel may alter or disrupt groundwater flows and potentially affect existing plants that rely on emergent groundwater	Testing will determine ground conditions around the tunnel (homogeneous or fractured material) and if determined necessary, install high-permeable strip drains consisting of a fabricated geocomposite core within a filter fabric around the tunnel box to convey the groundwater	- FEIS/R Section 3.4.2 - FEIS/R Section 3.3.1	Construction	Project plans to include strip drains	Contractor
Plant Species					
Project construction will result in the disturbance and removal of special-status plants due to construction equipment and activities	Develop and implement a General Biological Resource Monitoring Program as described under Natural Communities	- FEIS/R Section 3.4.1 - FEIS/R Section 3.4.3	Pre-Construction	Doyle Drive Project Biological Resource Monitoring Program	SFCTA/Caltrans
	Protect all sensitive habitat and special-status plant species within or next to the construction corridor that are not temporarily or permanently affected by the project as Environmentally Sensitive Areas (ESAs) which will be off-limits to all construction activity	- FEIS/R Section 3.4.1 - FEIS/R Section 3.4.3	Pre-Construction	Project plans will clearly mark ESAs	Contractor
Project construction may affect special-status species	Impacts to federal or state species of concern will be restored at a 1.5:1 ratio. Monetary compensation will be required if restoration is impracticable	- FEIS/R Section 3.4.1 - FEIS/R Section 3.4.3	Post Construction	Successful restoration or monetary compensation	SFCTA/Caltrans

Impact	Mitigation Measure	Reference	Implementation Timing	Compliance Verification Mechanism	Person/Party Responsible
Animal Species					
Project construction activities may disturb or directly cause the mortality of common wildlife species as well as habitat loss and degradation	Develop and implement a General Biological Resource Monitoring Program as described under Natural Communities	- FEIS/R Section 3.4.1 - FEIS/R Section 3.4.4	Pre-Construction	Doyle Drive Project Biological Resource Monitoring Program	SFCTA/Caltrans and Contractor
	Provide pre-construction training for all construction workers to present information provided by the Trust and NPS on working with these agencies and with the National Park	FEIS/R Section 3.4.4	Pre-Construction	Training logs	Contractor
Project construction activities will temporarily disrupt a segment of a primary corridor used by urban wildlife connecting the northern portion of the Presidio between the Pacific Ocean and coastal bluffs in the west and the non-native introduced forest in the east	Develop and implement a General Biological Resource Monitoring Program as described under Natural Communities	- FEIS/R Section 3.4.1 - FEIS/R Section 3.4.4	Pre-Construction	Doyle Drive Project Biological Resource Monitoring Program	SFCTA/Caltrans and Contractor
Construction lighting may act as an attractant, especially for migratory birds	Develop a Night Lighting Plan	FEIS/R Section 3.4.4	Pre-Construction	Doyle Drive Project Night Lighting Plan	Contractor
	Implement the Night Lighting Plan. Roadway lighting to be designed to minimize fugitive light outside the boundaries of the roadway	FEIS/R Section 3.4.4	Construction	Doyle Drive Project Night Lighting Plan	Contractor
Dust generated by construction activities may indirectly impact special-status invertebrate species by making plants unsuitable for invertebrates	Implement BAAQMD Guidelines for basic dust control procedures as described under Air Quality	- FEIS/R Section 3.4.4 - FEIS/R Section 3.3.4	Construction	BAAQMD Guidelines	Contractor
Construction activities may result in the mortality or reduced productivity of nesting special-status raptors and other avian species	Develop a Special-Status Bird Avoidance/Mitigation Plan which will include guidelines for periodic surveys, situation specific mitigation actions, vegetation removal to avoid nesting season, and plant restoration to avoid using plant species along or on the median of the roadway which will attract birds	FEIS/R Section 3.4.4	Pre-Construction	Special-Status Bird Avoidance/Mitigation Plan	SFCTA/Caltrans
	Implement the provisions of the Special-Status Bird Avoidance/Mitigation Plan	FEIS/R Section 3.4.4	Pre-Construction and Construction	Monitoring and reports based on requirements of Special-Status Bird Avoidance/Mitigation Plan	Contractor
	Perform pre-construction surveys for breeding or roosting bats	FEIS/R Section 3.4.4	Pre-Construction	Bat roosting survey results	Contractor

Impact	Mitigation Measure	Reference	Implementation Timing	Compliance Verification Mechanism	Person/Party Responsible
Invasive Species					
Project construction activities may affect the distribution of invasive plant species in the study area	Implement appropriate Best Management Practices during construction to limit spread of invasive species	FEIS/R Section 3.4.5	Construction	Project specifications to include appropriate erosion control and landscaping species	Contractor
	Comply with Executive Order 13112 and subsequent guidance from FHWA.	- FEIS/R Section 3.4.5 - Executive Order 13112	Construction	Project specifications to include appropriate erosion control and landscaping species	Contractor
	Erosion control and landscaping will not use species listed as invasive and will include the following precautions implemented in areas of particular sensitivity: - Inspecting and cleaning of construction equipment. - Implement eradication strategies should an invasion occur. - Discourage colonization of invasive, non-native species by stabilizing disturbed soil areas as soon as possible.	- FEIS/R Section 3.4.5 - Presidio Vegetation Management Plan	Construction	Project specifications to include appropriate erosion control and landscaping species	Contractor