

Final Supplemental Environmental Impact Statement



*The Public Health Service Hospital
at the Presidio of San Francisco*

May 2006

Final Supplemental Environmental Impact Statement Public Health Service Hospital, The Presidio of San Francisco, CA

This document provides new analysis, information, and changes made in response to public comments on the Draft Supplemental Environmental Impact Statement (SEIS) for the Public Health Service Hospital (PHSH), which was circulated and filed in August 2004. This document, together with the accompanying Response to Comments, will be filed as the Final SEIS. The Final SEIS is a supplement to and tiers from the 2002 Final EIS for the Presidio Trust Management Plan (PTMP), the Presidio Trust's comprehensive land use plan and policy framework for Area B of the Presidio. The PTMP evaluated in the 2002 Final EIS included planning guidelines for the PHSH district.

LEAD AGENCY

The Presidio Trust (Trust), a federal corporation and executive agency created by Congress in 1996, is the lead agency for the proposed action under the National Environmental Policy Act (NEPA). The Trust maintains jurisdiction over the interior 80 percent of the Presidio of San Francisco (Area B), while the National Park Service has jurisdiction over the coastal areas of the former army post (Area A). The Trust must preserve and enhance the Presidio and also become financially self-sufficient by the year 2013.

ABSTRACT

The Trust is proposing to rehabilitate and reuse buildings within the PHSH district of the Presidio, to re-introduce residential uses to the district, and to undertake related site improvements. These actions represent the "proposed action" evaluated in this Final SEIS. The Final SEIS evaluates five alternatives, including a publicly requested "no action" alternative and the PTMP baseline alternative. The alternatives propose different treatments for the main hospital (Building 1801) and different amounts of demolition and replacement construction within the project site. Potential impacts associated with each alternative are described, together with mitigation measures that would reduce or eliminate those impacts.

NEXT STEPS

The Trust will circulate this Final SEIS for at least 30 days before making a decision on the proposed action. **The Trust Board of Directors will hold a public meeting on June 15, 2006 beginning at 6:30 PM, at the Golden Gate Club, 135 Fisher Loop in the Presidio, to introduce the proposed action.** Although there is no requirement for the Trust to respond to comments received on the Final SEIS, the Trust will consider all comments received during the 30-day circulation period before making the final decision on the proposed action.

The Trust will determine whether the Final SEIS meets the standards for EIS adequacy under the NEPA, the Council on Environmental Quality (CEQ) NEPA Regulations, and its own NEPA regulations (36 CFR 1010), and will make a final decision on the proposed action in a Record of Decision (ROD). The ROD will be a written public record explaining why the Trust has taken a particular course of action and will enable the Trust to move forward to implement the proposed action.

FOR MORE INFORMATION

Contact John Pelka, Compliance Manager, Presidio Trust, 34 Graham Street, P.O. Box 29052, San Francisco, CA 94129-0052. Phone: 415/561-5300. Email: phsh@presidiotrust.gov.

Contents

COVER SHEET	
SUMMARY	1
Purpose	1
Planning Context	1
Previous Environmental Review, Changes to the Proposed Action, and Expanded Analysis	4
Areas of Controversy	5
Alternatives	7
Major Conclusions	9
Issues to be Resolved / Next Steps / Public Input	9
1 PURPOSE AND NEED	33
1.1 The Presidio of San Francisco	33
1.2 From Military Post to National Park	34
1.3 The Presidio Trust and Its Mandate	34
1.4 Purpose and Need for the Proposed Action	35
1.5 Project Objectives	41
2 ALTERNATIVES	43
2.1 Characteristics Shared by the Alternatives	43
2.2 Related Activities Common to All Alternatives	45
2.3 Requested No Action Alternative	50
2.4 Alternative 1: PTMP Alternative	52
2.5 Alternative 2: Wings Retained / Trust Revised Alternative	57
2.6 Alternative 3: Wings Removed Alternative	61
2.7 Alternative 4: Battery Caulfield Alternative	64
2.8 Park Presidio Boulevard Access Variant	68
2.9 Other Alternatives	71
2.10 Preferred Alternative	76
3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES	81
3.1 Land Use, Housing, and Schools	81
3.2 Transportation	93
3.3 Historic Resources	145
3.4 Archaeological Resources	159
3.5 Air Quality	163
3.6 Noise	171
3.7 Visual Resources	179
3.8 Visitor Use	192
3.9 Utilities and Services	197
3.10 Geology and Soils	216
3.11 Hydrology, Wetlands, and Water Quality	220
3.12 Biology	232

4	CONSULTATION AND REFERENCES	257
4.1	Concurrent Leasing and Environmental Review Process	257
4.2	Interagency Coordination	263
4.3	List of Persons and Agencies Consulted	268
4.4	List of Preparers and Contributors	270
4.5	Agencies and Organizations to Whom Copies of the Final SEIS Were Sent (Partial Listing)	272
4.6	References	274
	LIST OF ACRONYMS	285
	GLOSSARY	289
	INDEX	303

Appendices

- A Financial Analysis of PHSB Alternatives
- B Transportation Technical Memoranda
- C Environmental Review Summary

Figures

1	PHSH District and Project Site Boundaries	3
2	Existing Conditions at the PHSB	37
3	Related Ongoing Activities	46
4	Alternative 1: PTMP Alternative	54
5	Alternative 2: Wings Retained / Trust Revised Alternative	58
6	Alternative 3: Wings Removed Alternative	62
7	Alternative 4: Battery Caulfield Alternative	65
8	Park Presidio Boulevard Access Variant	69
9	Study Intersections	94
10	Existing Transit Routes	99
11	Trails and Bikeways	103
12	Historic Buildings and Archaeological Resources	147
13	Park Presidio Boulevard Access, Circa 1932	156
14	Building 1801, Existing Conditions	180
15	View Looking North from the Central Green, Existing Conditions	181
16	View Toward Battery Caulfield, Existing Conditions	182
17	Important Views to and from the PHSB District	183
18	Building 1801, Alternative 2 (Non-Historic Wings Remain)	186
19	Building 1801, Alternatives 3 and 4 (Non-Historic Wings Removed)	187
20	View Looking North from the Central Green, Alternative 4	189
21	View Toward Battery Caulfield, Alternative 4	190
22	Existing Site Hydrology	222
23	Conceptual Cross-Section of Hydrologic Conditions at Battery Caulfield	224
24	Biological Resources	233

Tables

1	Summary of Alternatives for the PHSB Project	8
2	Summary of Environmental Consequences and Mitigation	11
3	Presidio Trust Federal Appropriations, Fiscal Years 2000 to 2006 (in Millions of Dollars)	40
4	Range of Alternatives under Consideration for the PHSB Project	53
5	Existing and Projected Employee Housing Demand at the Presidio	84
6	Projected Land Use, Population, Employment, and School Enrollment at the PHSB District by Alternative	86
7	Intersection Levels of Service – Weekday AM and PM Peak Hours Existing Conditions (2005)	98
8	Existing (2004/2005) MUNI Passenger Loads	101
9	Trip Generation Rates by Land Use	107
10	Estimated Trip Generation by Mode of Travel and by Alternative Weekday Daily, AM and PM Peak Hour	108
11	Geographic Distribution of PHSB-Generated Trips	110
12	Comparison of Factors Used in Evaluating the Relative Significance of Transportation Impacts	111
13	Intersection Levels of Service – Weekday AM Peak Hour Year 2025 Conditions	112
14	Intersection Levels of Service – Weekday PM Peak Hour Year 2025 Conditions	113
15	Comparison of Future (2025) Peak Hour Traffic Volumes through 14 th /15 th Avenue Gates	123
16	Future (2025) Peak Hour Transit Trips to/from Project Site by Service Provider and Alternative	127
17	Parking Demand (Spaces) by Time of Day and Alternative	132
18	Comparison of Construction and Demolition Activities	135
19	Summary of Adverse and Beneficial Impacts on Historic Resources	150
20	Predicted Localized Carbon Monoxide (CO) Concentrations at Congested Intersections	166
21	Estimated Average Weekday Emissions from Vehicle Trips and Area Sources	167
22	FHWA Noise Abatement Criteria (Hourly dBA)	172
23	Summary of Short-Term Noise Measurements, PHSB District	173
24	Traffic Noise Levels in the Vicinity of PHSB Gates by Alternative	174
25	Annual Utility Demands	202
26	Known Occurrences of Special-Status Plant Species Near the Project Site	237
27	Occurrences of Special-Status Wildlife Species On or Near the Project Site	238
28	Public Agencies, Organizations, and Individuals Commenting on the PHSB Draft SEIS	262

Summary

In accordance with the Presidio Trust Act, as amended (16 USC 460bb appendix) and the Presidio Trust Management Plan (PTMP),¹ the Presidio Trust (Trust) is proposing to rehabilitate and reuse buildings within the Public Health Service Hospital (PHSH) district of the Presidio, to re-introduce residential uses to the district, and to undertake related site improvements. These actions represent the “proposed action” evaluated in this Final Supplemental Environmental Impact Statement (SEIS). The proposed action is intended to address the Trust’s statutory requirements and the agency’s mission, which is to preserve and enhance the cultural, natural, scenic, and recreational resources of the Presidio for public use in perpetuity while making the Presidio financially sustainable.

PURPOSE

The purpose of the proposed PHSH project is 1) to rehabilitate and reactivate the severely deteriorated historic buildings within the PHSH district, particularly the main hospital building; 2) to protect the National Historic Landmark District (NHLD) and other historic and cultural resources; 3) to address the health and safety risks to the Presidio and surrounding city neighborhoods from dilapidated and largely vacant buildings within the project site; 4) to improve the unsightly appearance of the existing unimproved landscapes within the project boundary; and 5) to generate revenue for the long-term enhancement of these and other Presidio resources, and for ongoing operation of the Presidio as a national park site.

The Trust has identified six leasing objectives for the project, and expressed the desire that these objectives be met in balance with one another. The leasing objectives relate to preserving historic resources, revitalizing and reusing the district, limiting traffic and parking demand, enhancing the financial viability of the Presidio, addressing design quality and environmental sustainability, and protecting natural resources. More detail on these objectives and the project purpose and need is presented in Section 1 of this Final SEIS.

PLANNING CONTEXT

In August 2002, the Trust adopted the PTMP, which established a policy framework and management direction for the Trust’s future decision-making (Trust 2002a). The accompanying environmental impact statement (EIS) analyzed a range of land use alternatives for the Presidio’s seven planning districts, including the PHSH district (Trust 2002b). The PTMP identified the PHSH district for reuse as a Residential and Educational Community and the Final EIS analyzed this land use mix. In response to public comments from PHSH district neighbors, the PTMP itself stated a preference for residential use in the main hospital building (PHSH or Building 1801), a preference that the Record of Decision (ROD)

¹ The PTMP is the Trust’s comprehensive land use plan, policy framework, and established management direction for Area B of the Presidio, adopted in August 2002.

explained would result in fewer impacts than the mix of residential and educational uses assessed in the Final EIS. More site-specific analysis of the change in land use preference described in the ROD is provided in this Final SEIS.

The PSHH district is about 42 acres, of which about half have been previously developed or disturbed. The district encompasses two geographically distinct areas:

1. The southern portion of the district, which is an 18-acre developed area with a collection of 15 buildings, including the historic PSHH and its nearby complex of dormitories, offices, residences, and recreational buildings. The southern portion of the district is sometimes referred to as the “lower plateau” and its collection of buildings as the “PSHH complex.”
2. The northern portion of the PSHH district, which includes previously disturbed areas mixed with remnant natural habitats. This second area, sometimes referred to as the “upper plateau,” has five small historic buildings, three of which are included in the current project. (Buildings 1449 and 1451 are used by the Trust and are therefore excluded.) The upper plateau also contains a maintenance or corporation yard and three underground former missile silos. The three-acre site of the corporation yard and missile silos is referred to as “Battery Caulfield” or sometimes the “Nike Missile Site.”

Together, the previously developed portions of the district, which include the PSHH complex and Battery Caulfield, are referred to as the “project site” or the “site” (Figure 1).

The area between Battery Caulfield and the PSHH complex (sometimes referred to as the “Nike Swale area”) supports ecologically significant native plant communities that include coast live oak woodland, central dune scrub, and riparian and dune slack wetland vegetation, as well as the San Francisco lessingia (*Lessingia germanorum*), a federally listed endangered plant. Vegetation in the Nike Swale area and north of Battery Caulfield provides habitat for the largest known quail population in San Francisco, as well as other bird species. The PTMP calls for the rare plant and wildlife species habitat and remnant natural systems to be protected and revitalized, and none of the project alternatives would include development in this area of the upper plateau.

Building space within the PSHH district today totals approximately 400,000 square feet (sf). Building 1801 is an historic structure of about 173,000 sf, not including non-historic additions or “wings” that flank the historic structure and total about 125,000 sf. The PTMP outlined the planning concept for the PSHH district to include the rehabilitation and reuse of the historic PSHH for residential use if feasible, and rehabilitation and reuse of the other historic structures within the district. Possible development in the district was “capped” at 400,000 sf, meaning that there could be no increase in square footage over existing conditions. However, the PTMP permits change within the district up to a maximum of 130,000 sf of building demolition and up to an equivalent amount of replacement construction. Under the PTMP, future planning could consider removal of the historic PSHH only if it was found to be infeasible to retain.

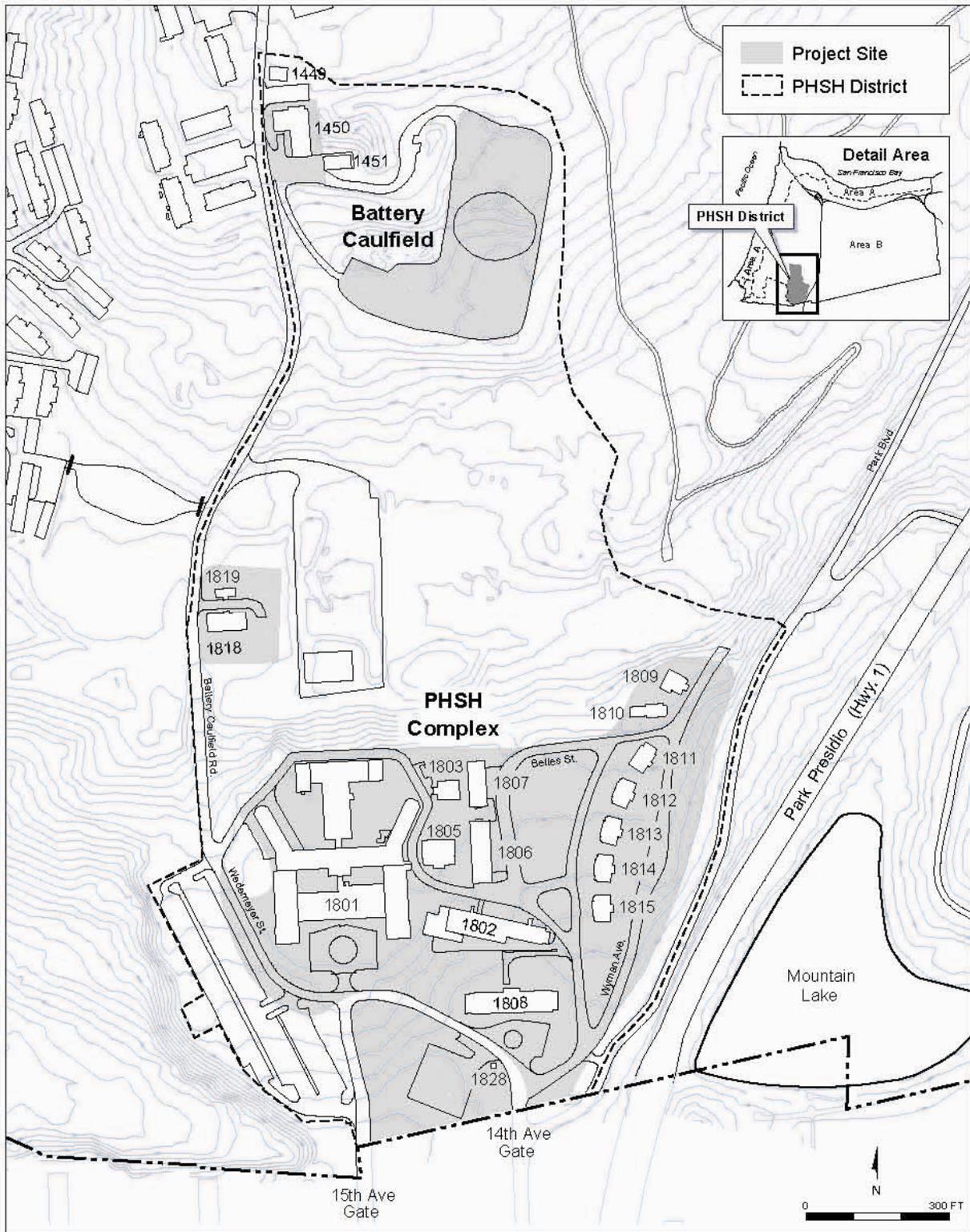


FIGURE 1. PSH DISTRICT AND PROJECT SITE BOUNDARIES

Source: Presidio Trust, 2006

PREVIOUS ENVIRONMENTAL REVIEW, CHANGES TO THE PROPOSED ACTION, AND EXPANDED ANALYSIS

The Trust initiated review of the proposed action under the National Environmental Policy Act (NEPA) in August 2003 with the preparation of an Environmental Assessment (EA) (42 USC 4321 et seq.), which was made available to the public in February 2004. The EA evaluated the environmental impacts of rehabilitating and reusing historic buildings in the PSHH district of the Presidio. Based on the impact analysis in the EA and a review of public comments received on the document, the Trust determined that a full Environmental Impact Statement (EIS) process would best achieve the NEPA's goals because of the potential significance of traffic impacts identified. Other impacts were determined to be less than significant, particularly with the implementation of mitigation measures. The Trust circulated the Draft SEIS for review in August 2004.

This Final SEIS, which has been prepared in accordance with the provisions of the NEPA, integrates and builds on the discussions and analyses in the PSHH EA and the Draft SEIS, and also includes new substantive environmental analyses and information in response to public comment. Like the PSHH EA, this SEIS also supplements and tiers from the Final EIS for the PTMP.² The PTMP, PTMP EIS, February 2004 PSHH EA, and August 2004 Draft SEIS can be viewed at the Presidio Trust Library, 34 Graham Street, San Francisco, CA or on the Trust's website (www.presidio.gov).

The Trust used the substantive comments received on the EA and during scoping and review of the Draft SEIS to inform preparation of the Final SEIS and the additional environmental analyses it contains. The FEIS includes the following principal changes to the Draft SEIS:

- The Trust's preferred alternative (Alternative 2) has been reduced from 350 residential units as analyzed in the Draft SEIS to 230, which is identical to Alternative 3's unit count. As the non-historic wings of Building 1801 would be retained under Alternative 2, the individual unit size and number of rooms per unit would be slightly larger than under Alternative 3 (see Section 2.5 and Appendix A).
- Alternative 2 and Alternative 3 have been renamed Wings Retained / Trust Revised Alternative and Wings Removed Alternative, respectively, to better characterize the alternatives and reveal their principal difference.
- As a result of reducing Alternative 2's unit count, there is a corresponding 18 percent (AM peak hour) to 24 percent (PM peak hour) reduction in vehicle trips generated by the alternative (see Section 3.2.2.1).
- Space within an existing building at Wherry Housing or the PSHH district would be provided to house an on-duty Presidio Fire Department staff of two firefighter/paramedic positions and a paramedic ambulance, and additional expansions in personnel and equipment would be implemented

² Appendix A (Environmental Review Summary) provides a summary of the PTMP EIS as it relates to this proposed action.

as warranted to improve fire and emergency medical services response times to southern areas of the Presidio (see Section 3.9.3).

- The Trust would take on a large portion of the project in order to receive greater revenue with fewer housing units.
- The trip generation rate for the preschool use has been revised so that it is consistent with the City and County of San Francisco (CCSF) rate and more closely reflects the actual traffic counts for the Requested No Action Alternative.
- The assumed assignment of traffic to area roadways has been modified to reflect more restrictive traffic calming measures on Battery Caulfield Road.
- A comparison of the factors considered in determining the relative significance of traffic impacts to those used by the CCSF Planning Department has been added (see Table 12).
- The discussion of traffic volumes through the 14th and 15th Avenue Gates has been expanded to clarify how much of the forecasted volume would be associated with the PHS project and how much would be attributable to pass-through traffic.

AREAS OF CONTROVERSY

Opposition to Trust's Preference for Alternative 2

During the course of environmental review for this project, a number of commenting organizations and individuals strongly criticized the Trust's asserted "balancing" of financial goals against other leasing objectives. They asked the Trust to clearly explain why, where a smaller development plan appears to be financially feasible and best meet the Trust's other stated project objectives, the modest potential financial gain of the Trust's proposal should "trump" all other considerations that would favor Alternative 3. Nearly all comments strongly urged the Trust to reconsider its stated preference for Alternative 2 in the Draft SEIS and choose Alternative 3, the smaller development plan, as the final development plan.

Opposition to Scale, Residential Density and Compatibility with Surrounding Neighborhoods

Many comments noted the Trust's need to use real estate development to meet the financial goals of the Presidio Trust Act, but nevertheless opposed the scale and density of Alternative 2. Comments called the Trust's proposal "completely out of character" with the neighborhood and generally urged a reduction in size to make the proposal more compatible with the adjacent neighborhood character. Many believed that even Alternative 3 is out of scale with the neighborhood and "barely acceptable," but said that they were "willing to live with it" to ensure the success of the Presidio.

Omission of Key Financial Information

The neighborhood organizations and others asserted that the Trust has not demonstrated a financial justification for pursuing its preferred plan for a “capital-intensive, maximum development” of the site under Alternative 2, when the smaller development plan provides sufficient revenues without the high capital requirements and at a level of development more in scale with its surroundings. They stated that without a specific financial plan for the PHSH site or any detailed explanation of the Trust's financial needs (other than the \$1 million minimum ground rent each of the alternatives can generate), the public cannot understand how well each of the alternatives, including the Trust’s proposal, would further the Trust’s long-range financial plan for the Presidio. They asked that the Trust set forth capital costs, source of capital, revenue, and operation and maintenance costs, and express the PHSH financial goal in the context of the Trust’s overall financial projections to understand why the Trust’s proposal is necessary to achieve financial self-sufficiency. Commenters also challenged the Trust to consider potential creative financial solutions that could eliminate the need to maximize build-out at the PHSH site.

Support for Removal of Non-Historic Wings

Many comments suggested that removal of the hospital wings would better preserve and rehabilitate the hospital building in accordance with its historic status. Reasons for favoring removal of the wings included the following: 1) the wings are grossly out of scale relative to their surroundings, 2) the 1950s-era wings all but obliterate the historic architecture of the early 1930s-era main building, and 3) the wings result in the over-development of the project site. Although the Secretary of the Interior Standards for the Rehabilitation of Historic Properties do not require removal of non-historic fabric, a neighborhood organization stressed that the Trust now has the unique opportunity to “correct the bad decision of the 1950s decision makers before it is too late,” and should “seize the opportunity” to remove the building’s wings in keeping with the Trust’s stated commitment to preserve and restore historic resources. Others stated the issue more bluntly, proclaiming that the wings were “unsightly,” “hideous,” a “visual vulgarity,” an “eyesore” or “aesthetic blight.” A number of individuals warned that the Trust should not want the wings to be part of its “legacy.”

Traffic and Safety Concerns and Addition of Park Presidio Boulevard Access

Neighborhood organizations and individuals remain concerned about the potential traffic and safety hazards that would be caused by the development. They pointed out that the smaller development plan (Alternative 3) has substantially less traffic and its impact would be further diminished by the creation of direct access from Park Presidio Boulevard. Many suggested that they are pleased with the strides the Trust has made in pursuing direct access to the project from Park Presidio Boulevard, and continue to believe that this access is a necessity to preserve the neighborhood quality of life. These organizations and others strongly urged the Trust to make the new Park Presidio access a project mandate to be completed before or as part of any residential development at the site.

ALTERNATIVES

This Final SEIS evaluates five project alternatives developed and modified with the benefit of public input. The alternatives propose different treatments for Building 1801 and different amounts of demolition and replacement construction, as follows.

- The Requested No Action Alternative assumes that the project would not occur. It would limit leasing and building occupancy to buildings that have been previously improved, specifically Buildings 1802 (portion), 1803, 1805, 1806, 1808, and 1450. No additional building rehabilitation, construction, or demolition would occur, and no residential use would be introduced to the district. Other buildings would remain vacant and would be protected from weather and vandalism as funding permits. The gross square footage of occupied buildings would be about 68,000 sf.
- The PTMP Alternative (Alternative 1), which is the legally required “no action” alternative under the NEPA, would rehabilitate all of the existing buildings on the site for a mix of educational and residential uses as assessed in the PTMP EIS. No new construction or demolition would occur. The gross square footage of occupied buildings would total about 400,000 sf, and 210 dwelling units would be provided in combination with 190,000 sf of other (mostly cultural/educational) uses.
- The Wings Retained / Trust Revised Alternative (Alternative 2) would rehabilitate the historic buildings on the site as well as the non-historic wings of Building 1801 for residential use with limited demolition and new construction (32,000 sf). The gross square footage of occupied buildings would total about 400,000 sf, and up to 230 dwelling units would be provided in combination with about 67,000 sf of other uses.
- The Wings Removed Alternative (Alternative 3) would rehabilitate the historic buildings on the site for residential use and would remove the non-historic wings of Building 1801 together with other non-historic buildings and additions. The gross square footage of occupied buildings would total about 275,000 sf, and up to 230 dwelling units would be provided in combination with about 42,000 sf of other uses.
- The Battery Caulfield Alternative (Alternative 4) would rehabilitate the historic buildings on the site for residential use, remove Building 1801’s non-historic wings as well as other non-historic buildings and additions, and construct new residential buildings at Battery Caulfield. The gross square footage of occupied buildings would total about 362,000 sf, and up to 269 dwelling units would be provided in combination with about 30,000 sf of other uses. A total of 155 of the 269 dwelling units would be age-restricted senior or assisted living units.

See Table 1 for a comparison of these alternatives.

Under Alternatives 1, 2, 3, and 4, vehicular access to the PHS district could be altered with approval and construction of a new intersection on Park Presidio Boulevard (Highway 1). Because this intersection would require approval by the California Department of Transportation (Caltrans), which has yet not been secured, the intersection is described and evaluated in this SEIS as a “variant” of Alternatives 1 through 4 known as the “Park Presidio Boulevard Access Variant.” The Trust is currently pursuing this variant and

has requested Caltrans' cooperation and support. The Park Presidio Boulevard Access Variant would construct a new signalized intersection approximately 400 feet north of the current intersection of Lake Street and Park Presidio Boulevard and would convert both the 14th and 15th Avenue Gates to inbound access only.

Table 1. Summary of Alternatives for the PSHH Project

	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED / ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE
Maximum Building Area	400,000 sf (68,000 sf occupied)	400,000 sf	400,000 sf	275,000 sf	362,000 sf
Maximum Demolition	0	0	32,000 sf	125,000 sf	116,000 sf
Maximum New Construction	0	0	32,000 sf	0	73,000 sf
Senior (Independent & Assisted Living) Units	0	0	0	0	155
Affordable Dwelling Units	0	0-42	0	0-46	0
Maximum Total Dwelling Units	0	210	230	230	269
Other Uses (Cultural/ Educational & Supporting Uses)	68,000 sf	190,000 sf	67,000 sf	42,000 sf	30,000 sf
Other Notes	Vacant Buildings "Mothballed"	Residential / Educational Mix; Wings Remain	Residential Use; Wings Remain	Residential Use; Wings Removed	Battery Caulfield Converted to Residential Use; Wings Removed

Source: Presidio Trust 2006.

sf = gross square feet of building space

Based on the information and analysis in the PSHH EA, the Draft SEIS, and this Final SEIS, Alternative 2 has been identified as the Trust's Preferred Alternative because it would meet the project's purpose and need and best balances the Trust's objectives without resulting in significant adverse impacts. While certain of the other alternatives may have less overall impact, the benefits of Alternative 2 surpass the benefits of the other alternatives, and its impacts would be less than significant. Identification of a preferred alternative does not indicate a final decision or commitment to approve or execute a project identical to that alternative. While the NEPA process is ongoing, no final approvals may be granted and no development agreement or lease may be signed. The project that is ultimately selected for implementation may combine various elements of the alternatives, or may fall within the

range they represent. More detail regarding proposed alternatives is provided in Section 2 of this Final SEIS.

MAJOR CONCLUSIONS

Introduction of new uses and activities to the project site would constitute a change that would be noticeable to park visitors and nearby neighbors. Changes related to traffic, land use, visual resources, biological resources, and a host of other issues are described in Section 3 of this Final SEIS and quantified where feasible. The analysis demonstrates that although many of the changes would be noticeable, all would fall well within levels evaluated in the PTMP EIS when the PTMP was adopted. Also, with the mitigation measures previously adopted in PTMP and additional mitigations identified in this SEIS, no change would be so great as to cause significant adverse impacts on park resources or other environmental conditions.

Cumulative traffic increases due to the project plus regional population and employment growth would result in Level of Service E and F conditions – generally considered unacceptable – at two intersections (Lake Street/14th Avenue and California Street/14th Avenue) in the AM and PM peak hours under all alternatives and at the Lake Street/15th Avenue intersection under the Requested No Action Alternative and Alternative 1 in the AM peak hour. Mitigation measures are available to address all significant cumulative traffic impacts. Many reasonable and low-cost mitigation measures such as installation of “right-turn only” signs at two-way stop-controlled intersections have been suggested. While traffic mitigation measures would be within the City’s jurisdiction, the Trust would make good faith efforts to alleviate the traffic impacts noted. Substantial, additional mitigation measures addressing a wide range of other topics were adopted by the Trust at the end of the PTMP planning process and would apply to the PSHS alternatives as described further in Section 3.

Table 2 further summarizes major conclusions and mitigation measures from the Final SEIS.

ISSUES TO BE RESOLVED / NEXT STEPS / PUBLIC INPUT

The Trust will circulate this Final SEIS for at least 30 days before making a decision on the proposed action, and will hold a public hearing to introduce the project during this circulation period. Although there is no requirement for the Trust to respond to comments received on the Final SEIS, the Trust will consider all comments received before making a decision on the proposed action.

The Trust will determine whether the Final SEIS meets the standards for EIS adequacy under the NEPA, the Council on Environmental Quality (CEQ) NEPA Regulations, and its own NEPA regulations (36 CFR 1010), and will make a final decision on the proposed action in a Record of Decision (ROD). The ROD will be a written public record explaining why the Trust has taken a particular course of action and will describe:

- The decision on the proposed action;
- Factors considered in making the decision;
- Alternatives considered and the environmentally preferred alternative;
- Any adopted mitigation measures or reasons why mitigation measures were not adopted; and
- A monitoring and enforcement program for those mitigation measures that were adopted.

The ROD will enable the Trust to move forward to implement the proposed action. Before any on-site demolition or construction activity begins, however, the Trust will follow a process that includes:

- Negotiating a development agreement that establishes conditions to the parties' obligation to enter into a long-term lease agreement and that addresses matters including deconstruction, demolition, abatement of hazardous materials, necessary permits and approvals, and other on-site preparation issues;
- Negotiating a ground lease that establishes appropriate terms and conditions for the long-term use of the site;
- Performing preliminary site investigation work such as due diligence investigations for environmental, archaeological, and other site-related matters;
- Securing any necessary permits and approvals;
- Soliciting, through competitive contracting procedures, demolition and construction contractors and negotiating applicable contract terms; and
- Preparing architectural design documents, consulting with historic preservation agencies, and seeking public input at periodically scheduled public meetings.

The Trust currently employs a design and construction review process as part of its permit issuance process for building and landscape rehabilitation projects. This review process ensures both code compliance as well as compliance with the Secretary of the Interior's Standards for the Treatment of Historic Properties. The design review process for rehabilitation of buildings at the PHSB district will largely follow the design and construction permit review process already in place, with the exception of creating more opportunities for public input at public meetings in the design phase.

Table 2. Summary of Environmental Consequences and Mitigation

IMPACT	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE	PARK PRESIDIO BOULEVARD ACCESS VARIANT	MITIGATION MEASURES ³
LAND USE, HOUSING, AND SCHOOLS							
Activity Levels	The level of existing and recent activities would continue, with an estimated 61 employees and 387 students on-site during daylight hours.	Substantial additional daytime use by students (1,422) and employees (140) would be complemented by a residential population of about 348.	Residential population of about 489 would be complemented by employees (138) and a small number of students (89).	Residential population of about 379 would be complemented by a small number of students (89) and employees (20).	Residential population of about 439 would be complemented by a small number of students (89) and employees (20).	No change in land use, housing, or schools would occur as a result of Park Presidio Boulevard access.	Adopted PTMP Mitigation Measure CO-3 would require cooperation with the San Francisco Unified School District.
Land Use Compatibility	The PHSB district would remain underused and no residential use would occur.	Large-scale educational use would be inconsistent with the immediately adjacent residential neighborhood and there would be a potential for land use conflicts between residents and students in Building 1801.	Residential use and density would be consistent with the immediately adjacent residential neighborhood. The existing hospital building would remain larger in scale than residences in the area.	Residential use and density would be consistent with the immediately adjacent residential neighborhood. The existing hospital building would remain larger than residences in the area, but would be reduced in size.	Impacts would be the same as Alternative 3 on the lower plateau, but the introduction of residential uses at Battery Caulfield would constitute a change in land use close to sensitive natural resources.	(not applicable)	(not applicable)

³ For a full explanation of potential impacts and for the full text of the mitigation measures referenced (e.g., Mitigation Measure CR-1), please refer to Section 3.

Table 2. Summary of Environmental Consequences and Mitigation

IMPACT	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE	PARK PRESIDIO BOULEVARD ACCESS VARIANT	MITIGATION MEASURES ³
Consistency with PTMP	The vision of a new community would not be achieved.	The PTMP vision would be fully implemented with no adjustment to improve land use compatibility.	Introduction of 230 dwelling units would exceed the 210 included in the PTMP.	Introduction of 230 dwelling units would exceed the 210 included in the PTMP.	Introduction of 269 dwelling units would exceed the 210 included in the PTMP. Use of Battery Caulfield for housing would not concentrate development on the lower plateau as called for in the PTMP.	(not applicable)	Adopted PTMP Mitigation Measure CO-2 would ensure that the Presidio-wide cap of 1,654 dwelling units would not be exceeded.
TRANSPORTATION							
Traffic Volumes	The amount of traffic would remain comparable to that generated by the recent uses of the site (about 1,300 daily vehicle trips and about 200 and 230 vehicle trips in the AM peak hour and PM peak hour, respectively).	Cultural/educational and residential uses would generate about 4,290 daily vehicle trips, including about 380 and 620 vehicle trips in the AM peak hour and PM peak hour, respectively.	The 230 dwelling units and other uses would generate about 1,730 daily vehicle trips, including about 190 and 200 vehicle trips in the AM peak hour and PM peak hour, respectively.	The 230 dwelling units and other uses in the district would generate about 1,540 daily vehicle trips, including about 160 and 190 vehicle trips in the AM peak hour and PM peak hour, respectively.	The 155 dwelling units, 114 senior housing units, and other uses would generate about 1,300 daily vehicle trips, including about 120 and 140 vehicle trips in the AM peak hour and PM peak hour, respectively.		(not applicable)

Table 2. Summary of Environmental Consequences and Mitigation

IMPACT	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE	PARK PRESIDIO BOULEVARD ACCESS VARIANT	MITIGATION MEASURES ³
Traffic Congestion (Project-Specific)	The effect at the intersection of Lake Street/15 th Avenue would be less than significant (Level of Service [LOS] E) because the Caltrans peak hour signal warrant would not be met in the AM peak hour in 2025 without operation of 14 th /15 th Avenue Gates as a couplet (proposed in other alternatives).	A significant project-specific (LOS F) impact would result at the two-way stop-controlled intersection of Lake Street/14 th Avenue in the AM and PM peak hours, where the Caltrans peak hour signal warrant would be met and Alternative 1 would comprise the majority of the growth in peak hour traffic volumes between 2005 and 2025.	No LOS E or F conditions resulting from the project have been identified.	No LOS E or F conditions resulting from the project have been identified.	No LOS E or F conditions resulting from the project have been identified.	Although LOS F conditions would persist with Alternative 1 at the intersection of Lake Street/14 th Avenue in both the AM and PM peak hours, the effect would be cumulative rather than project-specific, as Alternative 1 with the variant would comprise only 34 percent and 22 percent of the total growth in AM and PM peak hour traffic between 2005 and 2025, respectively. The LOS F conditions in the AM peak hour with Alternative 1 would not meet the Caltrans peak hour signal warrant with the variant and therefore would be less than significant.	Mitigation measures have been identified to improve conditions to LOS D or better for each significant effect; however, measures are outside the jurisdiction of the Trust.

Table 2. Summary of Environmental Consequences and Mitigation

IMPACT	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE	PARK PRESIDIO BOULEVARD ACCESS VARIANT	MITIGATION MEASURES ³
Traffic Congestion (Cumulative AM)	At the intersections of Lake Street/14 th Avenue and California Street/14 th Avenue, cumulative traffic would result in a new LOS E or F, representing a less-than-significant impact because the Caltrans peak hour signal warrant would not be met. The Requested No Action Alternative would contribute 33 percent or less to the growth in peak hour volume at these intersections between 2005 and 2025.	At the intersection of California Street/14 th Avenue, cumulative traffic would result in LOS F, representing a significant impact because the Caltrans peak hour signal warrant would be met. Alternative 1 is not expected to add traffic to the southbound approach to this intersection. At the intersection of Lake Street/15 th Avenue, cumulative traffic would result in LOS E, representing a less-than-significant impact because the Caltrans peak hour signal warrant would not be met. Alternative 1 would comprise 35 percent of the growth in traffic volumes at this intersection between 2005 and 2025.	At the intersection of Lake Street/14 th Avenue, cumulative traffic would result in LOS F, representing a significant impact because the Caltrans peak hour signal warrant would be met. Alternative 2 is expected to comprise 47 percent of the growth in traffic at this intersection between 2005 and 2025. At the intersection of California Street/14 th Avenue, cumulative traffic would result in LOS F, representing a significant impact because the Caltrans peak hour signal warrant would be met. Alternative 2 is not expected to add traffic to the southbound approach to this intersection.	At the intersection of Lake Street/14 th Avenue, cumulative traffic would result in LOS F, representing a less-than-significant impact because the Caltrans peak hour signal warrant would not be met. Alternative 3 would comprise 44 percent of the peak hour traffic growth at this intersection between 2005 and 2025. At the intersection of California Street/14 th Avenue, cumulative traffic would result in LOS F, representing a significant impact because the Caltrans peak hour signal warrant would be met. Alternative 3 is not expected to add traffic to the southbound approach to this intersection.	At the intersection of Lake Street/14 th Avenue, cumulative traffic would result in LOS F, representing a less-than-significant impact because the Caltrans peak hour signal warrant would not be met. Alternative 4 would comprise 39 percent of the peak hour traffic growth at this intersection between 2005 and 2025. At the intersection of California Street/14 th Avenue, cumulative traffic would result in LOS F, representing a significant impact because the Caltrans peak hour signal warrant would be met. Alternative 4 is not expected to add traffic to the southbound approach to this intersection.	The intersections of Lake Street/14 th Avenue and California Street/14 th Avenue would also operate at LOS E or F under all alternatives. The intersection of Lake Street/14 th Avenue would not meet the Caltrans peak hour signal warrant under Alternative 1 or 2, and the cumulative effect of these alternatives would be less than significant with the variant.	Mitigation measures have been identified to improve conditions to LOS D or better for each significant effect; however, identified traffic mitigation measures are outside the jurisdiction of the Trust.

Table 2. Summary of Environmental Consequences and Mitigation

IMPACT	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE	PARK PRESIDIO BOULEVARD ACCESS VARIANT	MITIGATION MEASURES ³
Traffic Congestion (Cumulative PM)	<p>At the intersection of Lake Street/14th Avenue, cumulative traffic would result in LOS F, representing a less-than-significant impact because the Caltrans peak hour signal warrant would not be met. The Requested No Action Alternative would comprise 28 percent of the peak hour traffic growth at this intersection between 2005 and 2025.</p> <p>At the intersection of California Street/14th Avenue, cumulative traffic would result in LOS F, representing a significant impact because the Caltrans peak hour signal warrant would be met. the Requested No Action Alternative is expected to comprise 4 percent of the peak hour traffic growth at this intersection between 2005 and 2025.</p>	<p>At the intersection of California Street/14th Avenue, cumulative traffic would result in LOS F, representing a significant impact because the Caltrans peak hour signal warrant would be met. Alternative 1 is not expected to add traffic to the southbound approach to this intersection.</p>	<p>At the intersection of Lake Street/14th Avenue, cumulative traffic would result in LOS F, representing a significant impact because the Caltrans peak hour signal warrant would be met. Alternative 2 is expected to comprise 36 percent of the peak hour traffic growth at this intersection between 2005 and 2025.</p> <p>At the intersection of California Street/14th Avenue, cumulative traffic would result in LOS F, representing a significant impact because the Caltrans peak hour signal warrant would be met. Alternative 2 is not expected to add traffic to the southbound approach to this intersection.</p>	<p>At the intersection of Lake Street/14th Avenue, cumulative traffic would result in LOS F, representing a significant impact because the Caltrans peak hour signal warrant would be met. Alternative 3 would comprise 35 percent of the peak hour traffic growth at this intersection between 2005 and 2025.</p> <p>At the intersection of California Street/14th Avenue, cumulative traffic would result in LOS F, representing a significant impact because the Caltrans peak hour signal warrant would be met. Alternative 3 is not expected to add traffic to the southbound approach to this intersection.</p>	<p>At the intersection of Lake Street/14th Avenue, cumulative traffic would result in LOS F, representing a less-than-significant impact because the Caltrans peak hour signal warrant would not be met. Alternative 4 would comprise 30 percent of the peak hour traffic growth at this intersection between 2005 and 2025.</p> <p>At the intersection of California Street/14th Avenue, cumulative traffic would result in LOS F, representing a significant impact because the Caltrans peak hour signal warrant would be met. Alternative 4 is not expected to add traffic to the southbound approach to this intersection.</p>	<p>The intersections of Lake Street/14th Avenue and California Street/14th Avenue would also operate at LOS F under all alternatives. The intersection of Lake Street/14th Avenue would not meet the Caltrans peak hour signal warrant under Alternative 2 or 3, and the cumulative effect of these alternatives would be less than significant with the variant.</p>	<p>Mitigation measures have been identified to improve conditions to LOS D or better for each significant effect; however, identified traffic mitigation measures are outside the jurisdiction of the Trust.</p>

Table 2. Summary of Environmental Consequences and Mitigation

IMPACT	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE	PARK PRESIDIO BOULEVARD ACCESS VARIANT	MITIGATION MEASURES ³
Transit Ridership	Existing and recent uses (i.e., Jewish Community Center) in the district would generate about 270 daily transit trips, including about 40 and 50 transit trips in the AM and PM peak hours, respectively.	The cultural/ educational and residential uses would generate about 1,520 daily transit trips, including about 110 and 210 transit trips in the AM and PM peak hours, respectively.	The 230 dwelling units and other uses in the district would generate about 560 daily transit trips, including about 60 transit trips in both the AM peak hour and the PM peak hour.	The 230 dwelling units and other uses in the district would generate about 480 daily transit trips, including about 50 and 60 transit trips in the AM and PM peak hours, respectively.	The 155 dwelling units, 114 senior housing units, and other uses in the district would generate about 420 daily transit trips, including about 30 and 40 transit trips in the AM and PM peak hours, respectively.	(not applicable)	(not applicable)
Transit Capacity (Cumulative)	If MUNI does not add capacity to routes on California Street or Route 28 by 2025, cumulative ridership could exceed capacity on these routes even if the PHSH project does not proceed.	The project would contribute incrementally to the same cumulative impacts that would occur even without the PHSH project (i.e., with the Requested No Action Alternative).	The project would contribute incrementally to the same cumulative impacts that would occur even without the PHSH project (i.e., with the Requested No Action Alternative).	The project would contribute incrementally to the same cumulative impacts that would occur even without the PHSH project (i.e., with the Requested No Action Alternative).	The project would contribute incrementally to the same cumulative impacts that would occur even without the PHSH project (i.e., with the Requested No Action Alternative).	(not applicable)	Adopted PTMP mitigation measures require the Trust to monitor transit ridership for any capacity problems and coordinate potential improvements as necessary. Service changes would be within the jurisdiction of the transit agencies.

Table 2. Summary of Environmental Consequences and Mitigation

IMPACT	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE	PARK PRESIDIO BOULEVARD ACCESS VARIANT	MITIGATION MEASURES ³
Bicycles / Pedestrians	Existing and recent uses (i.e., Jewish Community Center) in the district would generate about 180 daily bicycle/pedestrian trips, including about 30 bicycle or pedestrian trips in both the AM peak hour and PM peak hour.	The cultural/ educational and residential uses in the district would generate about 1,480 daily bicycle/pedestrian trips, including about 100 and 200 bicycle or pedestrian trips in the AM peak hour and PM peak hour, respectively.	The 230 dwelling units and other uses in the district would generate about 540 daily bicycle/pedestrian trips, including about 60 bicycle or pedestrian trips in both the AM peak hour and PM peak hour.	The 230 dwelling units and other uses in the district would generate about 450 daily bicycle/pedestrian trips, including about 40 and 50 bicycle or pedestrian trips in the AM peak hour and PM peak hour, respectively.	The 155 dwelling units, 114 senior housing units, and other uses in the district would generate about 400 daily bicycle/pedestrian trips, including about 30 and 40 bicycle or pedestrian trips in the AM peak hour and PM peak hour, respectively.	(not applicable)	(not applicable)
Parking	Existing and recent uses would generate a demand for 133 spaces on weekdays and fewer spaces on weekends and evenings. The proposed supply of 276 spaces would adequately accommodate the peak period demand of 133 spaces.	Cultural/educational and residential uses would generate a demand for 491 spaces on weekends and fewer on weekdays. The proposed supply of 537 spaces would adequately accommodate the peak period demand of 491 spaces.	The 230 dwelling units and other uses would generate a demand for 327 spaces on weekends and fewer on weekdays. The proposed supply of 452 spaces (including 123 underground spaces) would adequately accommodate the peak period demand of 327 spaces.	The 230 dwelling units and other uses would generate a demand for 302 spaces on weekends and fewer on weekdays. The proposed supply of 330 spaces would adequately accommodate the peak period demand of 302 spaces.	The 155 dwelling units, 114 senior housing units, and other uses in the district would generate a demand for 225 spaces on weekends and fewer on weekdays. The proposed supply of 267 spaces would adequately accommodate the peak period demand of 225 spaces.	(not applicable)	Adopted PTMP Mitigation Measure TR-23 provides for management of the parking supply to meet but not substantially exceed demand, so that parking demand does not “spill over” into nearby areas but the supply is close enough to demand that site occupants will seek modes other than the single-occupied automobile.

Table 2. Summary of Environmental Consequences and Mitigation

IMPACT	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE	PARK PRESIDIO BOULEVARD ACCESS VARIANT	MITIGATION MEASURES ³
HISTORIC RESOURCES							
Demolition of Historic Resources or Other Adverse Impacts	No demolition, would occur, but historic buildings would be “mothballed” instead of reused.	No demolition or other adverse effects would occur.	No demolition or other adverse effects would occur.	No demolition or other adverse effects would occur.	No demolition or other adverse effects would occur.	No demolition or other adverse effects would occur.	Adopted PTMP Mitigation Measures CR-1, CR-2, CR-3, CR-6, and CR-7 would minimize adverse impacts on historic resources.
Rehabilitation of Historic Buildings or Other Beneficial Impacts	No rehabilitation would occur.	Rehabilitation of historic buildings and landscapes would benefit historic resources.	Rehabilitation of historic buildings and landscapes would benefit historic resources. Limited non-historic building fabric would be removed from the front of Building 1801.	Rehabilitation of historic buildings and landscapes would benefit historic resources. All non-historic building fabric would be removed from the front of Building 1801.	Rehabilitation of historic buildings and landscapes would benefit historic resources. All non-historic building fabric would be removed from the front of Building 1801.	(not applicable)	(not applicable)

Table 2. Summary of Environmental Consequences and Mitigation

IMPACT	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE	PARK PRESIDIO BOULEVARD ACCESS VARIANT	MITIGATION MEASURES ³
ARCHAEOLOGICAL RESOURCES							
Destruction of, or Damage to, Archaeological Resources	Routine maintenance and ongoing operations would have minimal or low potential to adversely affect prehistoric and historic archaeological resources.	As no building demolition or replacement construction would occur, potential effects on archaeological resources would be minimal and limited to such ground-disturbing activities as infrastructure upgrades, pavement removal, and landscaping.	The potential for effects on archaeological resources would be slightly greater than under the Requested No Action Alternative and Alternative 1 due to ground-disturbing activities associated with underground parking.	Ground-disturbing activities associated with demolition of approximately 125,000 square feet of non-historic buildings on the lower plateau would likely encounter archaeological resources.	Effects on archaeological resources due to 56,000 square feet of new construction within Battery Caulfield would be unlikely, since ground-disturbing activities would take place within a heavily modified area where there are no known or suspected resources. Demolition of 116,000 square feet of building area on the lower plateau would likely encounter archaeological resources.	Grading and construction activities would occur in an area that was disturbed when Highway 1 was originally constructed in the 1930s. As a result, the likelihood of encountering archaeological resources would be minimal.	Adopted PTMP Mitigation Measures CR-8, CR-9, CR-11, and CR-13 through CR-15 would minimize adverse impacts.

Table 2. Summary of Environmental Consequences and Mitigation

IMPACT	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE	PARK PRESIDIO BOULEVARD ACCESS VARIANT	MITIGATION MEASURES ³
AIR QUALITY							
General Construction / Demolition Emissions	Essentially no emissions associated with demolition, construction, or rehabilitation would occur.	Limited operation of heavy equipment and other activities associated with rehabilitation would generate some dust and other pollutants that could degrade local air quality.	Higher potential emissions would result from demolition and new construction (in particular, the construction of an underground parking garage) than under Alternative 1.	Potential emissions would be higher than under Alternative 1, due to more demolition. Emissions would be lower than under Alternative 2, because of no new development.	Potential emissions from demolition and new development would be higher than under all other alternatives.	Short-term construction emissions would be higher due to additional earthwork, grading, paving, and signal installation that would be needed to create the new lanes.	Adopted PTMP Mitigation Measures NR-20 and NR-22 in combination with new Measure NR-X <i>Construction Equipment Exhaust</i> would minimize adverse construction impacts.
Consistency with Regional Clean Air Plans	Essentially no emissions would be caused and there would be no potential to delay attainment of ambient air quality standards.	Housing and employment growth would be consistent with Clean Air Plan assumptions. Implementation of the transportation demand management (TDM) program would ensure consistency with the plans.	Implementation of the TDM program and the relatively small scale of the proposed demolition and construction activities would ensure consistency with the plans.	(Similar to Alternative 2.)	(Similar to Alternative 2.)	No impact on attainment of ambient air quality standards would occur.	Adopted PTMP Mitigation Measure NR-21 would ensure consistency.

Table 2. Summary of Environmental Consequences and Mitigation

IMPACT	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE	PARK PRESIDIO BOULEVARD ACCESS VARIANT	MITIGATION MEASURES ³
Potential Localized CO Violations	Carbon Monoxide (CO) concentrations would range up to 5.0 parts per million (ppm) for one-hour averages and 3.4 ppm for eight-hour averages. These concentrations would not exceed ambient air quality standards.	(Similar to the Requested No Action Alternative.)	(Similar to the Requested No Action Alternative.)	(Similar to the Requested No Action Alternative.)	(Similar to the Requested No Action Alternative.)	(Similar to the Requested No Action Alternative.)	Adopted PTMP Mitigation Measure NR-21 would minimize adverse impacts.
Regional Emissions	Essentially no new emissions would occur compared to the existing conditions.	Daily vehicle trips in 2025 and small stationary sources would generate approximately 28 pounds/day more reactive organic gases (ROG) and 13 pounds/day more nitrogen oxides (NOx) than the Requested No Action Alternative.	Daily vehicle trips in 2025 and small stationary sources would generate approximately 22 pounds/day more ROG and 5 pounds/day more NOx than the Requested No Action Alternative.	Daily vehicle trips in 2025 and small stationary sources would generate approximately 21 pounds/day more ROG and 4 pounds/day more NOx than the Requested No Action Alternative.	Daily vehicle trips in 2025 and small stationary sources would generate approximately 24 pounds/day more ROG and 4 pounds/day more NOx than the Requested No Action Alternative.	No impact on regional emissions would occur.	Adopted PTMP Mitigation Measure NR-21 would minimize adverse impacts.

Table 2. Summary of Environmental Consequences and Mitigation

IMPACT	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE	PARK PRESIDIO BOULEVARD ACCESS VARIANT	MITIGATION MEASURES ³
NOISE							
General Construction / Demolition Noise	Essentially no noise generated by demolition, construction, or rehabilitation activities would occur.	Noise generated by limited rehabilitation activities would occur within the existing buildings, which would shield outside areas from noise.	Noise generated by demolition, construction, and rehabilitation activities would have the potential to intermittently affect Presidio tenants, recreational users, and nearby residences.	(Similar to Alternative 2.)	(Similar to Alternative 2.)	Increased short-term construction noise impacts would result because construction of the road would occur closer to the existing homes.	Adopted PTMP Mitigation Measure NR-23 in combination with Mitigation Measure NR-8 would minimize adverse impacts.
Traffic Noise	Essentially no new traffic noise increases would occur within the Presidio or within the adjacent neighborhoods.	Traffic noise levels would be greater than under the Requested No Action Alternative. Noticeable traffic noise increases would occur compared to the Requested No Action Alternative. Future traffic noise would not approach or exceed the Noise Abatement Criteria (NAC).	Traffic noise levels would be less than under Alternative 1. Noticeable traffic noise increases would occur compared to the Requested No Action Alternative. Future traffic noise would not approach or exceed the NAC.	Traffic noise levels would be similar to Alternative 2.	Traffic noise levels would be similar to Alternative 2.	Similar to Alternative 2, but with lower traffic noise levels because the access variant would remove some traffic from 14 th and 15 th Avenues.	Adopted PTMP Mitigation Measure NR-24 would minimize adverse impacts.

Table 2. Summary of Environmental Consequences and Mitigation

IMPACT	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE	PARK PRESIDIO BOULEVARD ACCESS VARIANT	MITIGATION MEASURES ³
Noise from Stationary Sources	Essentially no change in noise from building operations equipment or increased human activity would occur.	Building operations equipment and increased human activity would increase noise levels throughout the daytime, evening, and weekend hours, especially during daytime hours due to the high level of employment.	Building operations equipment and increased human activity would increase noise levels during evening and weekend hours. Noise levels would be similar to Alternative 1, but less than Alternative 1 during daytime hours.	Noise levels would be similar to Alternative 2, with similar noise levels during evening and weekend hours.	Noise levels would be similar to Alternative 2, but with slightly less noise during evening and weekend hours.	No change in noise from stationary sources would occur.	(not applicable)
VISUAL RESOURCES							
Change in Visual Appearance	Essentially no change from existing conditions would occur.	Building and landscape rehabilitation and removal of fencing would improve the appearance of the lower plateau.	Building and landscape rehabilitation, removal of fencing, removal of the lobby and loggia of Building 1801, and re-cladding of the non-historic wings would improve the appearance of the lower plateau.	Building and landscape rehabilitation, removal of fencing, and removal of non-historic additions from the front of Building 1801 would improve the appearance of the lower plateau.	In the lower plateau, impacts would be the same as under Alternative 3. Introduction of residential uses would change the appearance of Battery Caulfield, which is currently used as a maintenance yard.	Drivers and others could notice minor visual changes, including signs, a street light, and grading changes.	Adopted PTMP Mitigation Measure NR-7 would address changes in lighting and prevent adverse effects.

Table 2. Summary of Environmental Consequences and Mitigation

IMPACT	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE	PARK PRESIDIO BOULEVARD ACCESS VARIANT	MITIGATION MEASURES ³
VISITOR USE							
Change in Activity Levels and Visitor Experience	Essentially no change from existing conditions would occur.	Visitors would notice increased activity levels on site, and district residents and students would use adjacent areas of the park. Trail improvements and interpretive signs would improve the visitor experience.	Visitors would notice increased activity levels on-site, and district residents would use adjacent areas of the park. Trail improvements and interpretive signs would improve the visitor experience.	(Similar to Alternative 2.)	District residents would use adjacent areas of the park. Limited visitor access to Battery Caulfield would be provided. Trail improvements and interpretive signs would improve the visitor experience.	Park visitors would have improved access.	Adopted PTMP Mitigation Measures CO-4, CO-5, CO-6, CO-7, and NR-14 would avoid adverse effects.
UTILITIES AND SERVICES							
Increased Demand for Potable Water	Water supply would be sufficient for existing and proposed needs. Average demand would be approximately 10,000 gallons per day (gpd) annually. Upgrades to the existing system would be made as part of routine maintenance or on an as-needed basis.	Projected water supply would be sufficient for expected needs. Average demand would be approximately 71,000 gpd annually. Upgrades and new backflow prevention devices, fire laterals, and meters would be required.	Projected water supply would be sufficient for expected needs. Average demand would be approximately 58,000 gpd annually. Similar to Alternative 1, upgrades and new backflow prevention devices, fire laterals, and meters would be required.	Projected water supply would be sufficient for expected needs. Average demand would be approximately 51,000 gpd annually. Similar to Alternative 1, upgrades and new backflow prevention devices, fire laterals, and meters would be required.	Projected water supply would be sufficient for expected needs. Average demand would be approximately 43,000 gpd annually. Upgrades to the system would be required, including additional infrastructure to support new construction at Battery Caulfield.	(No additional impacts.)	Adopted PTMP Mitigation Measure UT-1 would minimize adverse effects.

Table 2. Summary of Environmental Consequences and Mitigation

IMPACT	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE	PARK PRESIDIO BOULEVARD ACCESS VARIANT	MITIGATION MEASURES ³
Increased Wastewater Generation	Approximately 9,000 gpd of wastewater would be generated annually. Sewer lines and the City and County of San Francisco (CCSF) Oceanside system are adequately sized to handle existing and proposed flows.	Approximately 55,000 gpd of wastewater would be generated annually. Sewer lines and the CCSF Oceanside system are adequately sized to handle existing and proposed flows.	Proposed uses would generate 43,000 gpd of wastewater annually. Sewer lines and the CCSF Oceanside system are adequately sized to handle existing and proposed flows.	Proposed uses would generate 37,000 gpd of wastewater annually. Sewer lines and the CCSF Oceanside system are adequately sized to handle existing and proposed flows.	Proposed uses would generate 30,000 gpd of wastewater annually. New sewer lines would be required to support new construction at Battery Caulfield.	(No additional impacts.)	Adopted PTMP Mitigation Measure UT-4 would minimize adverse effects.
Adequacy of Storm Water Drainage System	The existing storm sewer system has sufficient capacity to meet existing and proposed needs. Storm water would continue to be directed to the CCSF combined sewer system. Damaged piping would be repaired or replaced following routine inspection and maintenance activities.	The existing storm sewer system has sufficient capacity and would be generally functional to meet proposed needs. The runoff generated from the site would be equal to or less than the current condition. Storm water would continue to be directed to the CCSF combined sewer system. Some infrastructure improvements would be required, including rerouting storm drains along Wyman Avenue to the CCSF system (instead of Mountain Lake).	(Similar to Alternative 1.)	(Similar to Alternative 1.)	Conditions would be similar to those described for Alternative 1. However, additional measures would be required to minimize changes to the local hydrology at Battery Caulfield.	Storm water control measures would be incorporated into the intersection design.	Adopted PTMP Mitigation Measures UT-6 and UT-7 would minimize adverse effects.

Table 2. Summary of Environmental Consequences and Mitigation

IMPACT	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE	PARK PRESIDIO BOULEVARD ACCESS VARIANT	MITIGATION MEASURES ³
Increased Solid Waste Generation	Minimal or no impacts on the regional waste stream due to building demolition, construction, or rehabilitation activities would occur. During operation, approximately 230 tons of waste would be generated per year.	Building rehabilitation would result in the disposal of up to 4,950 tons of debris. During operation, approximately 600 tons of waste would be generated per year.	Building demolition, rehabilitation, and construction would result in the disposal of up to 5,650 tons of debris. During operation, approximately 950 tons of waste would be generated per year.	Demolition of all non-historic buildings would result in the disposal of up to 12,000 tons of debris. During operation, approximately 660 tons of waste would be generated per year.	Building demolition, rehabilitation, and construction would result in the disposal of up to 11,580 tons of debris. During operation, approximately 570 tons of waste would be generated per year.	(No additional impacts.)	Adopted PTMP Mitigation Measure UT-8 would minimize adverse effects.
Increased Demand for Natural Gas	Approximately 28 thousand therms of natural gas would be consumed annually. Existing services are adequately sized, although some upgrades to infrastructure may be required to provide for a more reliable system.	Approximately 164 thousand therms of natural gas would be consumed annually. Replacement of older gas lines in the streets in adjacent neighborhoods with new piping, if necessary, may inconvenience affected residences.	Compared to Alternative 1, roughly the same amount of natural gas would be consumed annually (164 thousand therms). As under Alternative 1, adjacent neighborhoods may be temporarily inconvenienced by gas line replacement.	Compared to Alternative 1, roughly two-thirds the amount of natural gas would be consumed annually (113 thousand therms). As under Alternative 1, adjacent neighborhoods may be temporarily inconvenienced by gas line replacement.	Compared to Alternative 1, approximately 10 percent less natural gas would be consumed annually (148 thousand therms). As under Alternative 1, adjacent neighborhoods may be temporarily inconvenienced by gas line replacement.	(No additional impacts.)	Adopted PTMP Mitigation Measures UT-12 and UT-13 would minimize adverse effects.

Table 2. Summary of Environmental Consequences and Mitigation

IMPACT	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE	PARK PRESIDIO BOULEVARD ACCESS VARIANT	MITIGATION MEASURES ³
Increased Electrical Consumption	Up to 0.49 million kilowatt-hours (kWh) of electricity would be consumed annually. Old cables would be rehabilitated and the system upgraded for safety and efficiency as part of maintenance operations.	Up to 2.61 million kWh of electricity would be consumed annually. The electrical system serving the district would be upgraded for safety and efficiency, including repair and rehabilitation of old cables and, where possible, undergrounding of overhead lines.	Approximately 2.61 million kWh of electricity would be consumed annually. As under Alternative 1, the electrical system serving the district would require upgrading, including repair and rehabilitation of old cables and, where possible, undergrounding of overhead lines.	Less than half the electricity that would be used under Alternative 1 would be consumed annually (approximately 1.24 million kWh). As under Alternative 1, the electrical system serving the district would require upgrading.	Approximately 1.47 million kWh of electricity would be consumed annually. The electrical system serving the district would require upgrading, including new lines to service new construction at Battery Caulfield.	(No additional impacts.)	Adopted PTMP Mitigation Measures UT-12 and UT-13 would minimize adverse effects.
Increased Demand for Fire Protection and Emergency Response	No additional firefighting forces, equipment, or emergency resources would be deployed. Response time for calls for fire and emergency medical services at the site would most likely remain deficient.	Additional firefighting staff, equipment, and/or facilities located in or near the district would be required to ensure minimum response time for calls for fire and emergency medical service.	Impacts would be similar to those described for Alternative 1. An increase in firefighting staff, equipment, and/or facilities would be needed to provide the required levels of fire protection and emergency medical response to the district.	Impacts would be similar to those described for Alternative 1. An increase in firefighting staff, equipment, and/or facilities would be needed to provide the required levels of fire protection and emergency medical response to the district.	The older population and assisted living component associated with this alternative would increase emergency medical calls for service and place an increased response load on emergency services compared to the other alternatives.	(No additional impacts.)	Implementation of Mitigation Measure CO-12 would minimize adverse effects.

Table 2. Summary of Environmental Consequences and Mitigation

IMPACT	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE	PARK PRESIDIO BOULEVARD ACCESS VARIANT	MITIGATION MEASURES ³
Increased Demand for Law Enforcement Services	Unoccupied buildings would be secured but unwanted entry would most likely still occur. Calls for police service would probably continue at current levels (approximately five calls per week).	The number of calls for police service from occupants would increase but calls related to vagrancy and vandalism would decrease. Appropriate increases in U.S. Park Police (USPP) staff, equipment, and facilities would be required to ensure that law enforcement services remain at adequate levels.	Impacts would be similar to those described for Alternative 1. USPP would need to expand its operations as necessary to provide adequate services.	Impacts would be similar to those described for Alternative 1. USPP would need to expand its operations as necessary to provide adequate services.	Impacts would be similar to those described for Alternative 1. USPP would need to expand its operations as necessary to provide adequate services.	(No additional impacts.)	Implementation of Mitigation Measure CO-12 would minimize adverse effects.

Table 2. Summary of Environmental Consequences and Mitigation

IMPACT	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE	PARK PRESIDIO BOULEVARD ACCESS VARIANT	MITIGATION MEASURES ³
GEOLOGY AND SOILS							
Exposure of People and Property to Geologic and Seismic Hazards	Mothballing of vacant buildings would include bracing or added reinforcement of severely vulnerable structural components, which would improve their overall seismic resistance. Measures taken to strengthen buildings would meet minimum performance objectives but would reduce levels of damage and ensure the lives of the buildings following a seismic event.	Building rehabilitation would result in structural upgrades that would add lateral/seismic resistance in the event of a major earthquake. Building rehabilitation and structural upgrading would reduce seismic risk to acceptable levels.	As under Alternative 1, building rehabilitation would result in a successful retrofit for seismic safety purposes. Replacement construction would be limited to the lower plateau and would be built to current standards and seismic design factors.	As under Alternative 1, building rehabilitation using standard structural engineering techniques would result in a successful retrofit for seismic safety purposes.	As under Alternative 1, building rehabilitation would result in a successful retrofit for seismic safety purposes. Replacement construction would be built to current standards and seismic design factors. Measures to improve the stability of the fill slope may be required for new construction at Battery Caulfield.	Intersection design would minimize high cuts and fills. The design would be built to standards set forth in the Highway Design Manual and subject to Caltrans geotechnical review to mitigate the potential for earthquake damage.	The adopted PTMP requirement identified as Mitigation Measure GE-X <i>Geotechnical Report</i> would minimize adverse effects.

Table 2. Summary of Environmental Consequences and Mitigation

IMPACT	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE	PARK PRESIDIO BOULEVARD ACCESS VARIANT	MITIGATION MEASURES ³
HYDROLOGY, WETLANDS, AND WATER QUALITY							
Direct and Indirect Impacts on Wetlands and Water Quality	Though construction, demolition, or rehabilitation would not occur under this alternative, current land use of Battery Caulfield potentially affects the quality of water flowing to the Nike Swale wetland area.	Resulting changes to hydrology, groundwater, and wetlands would not be appreciable. Proposed uses would result in increased runoff, however, which would have the potential to degrade water quality. Adverse impacts on water quality of the Nike Swale area would remain.	Impacts would be similar to those described for Alternative 1. New construction would not substantially alter surface hydrology in the PHS complex. Existing adverse water quality impacts on the Nike Swale from Battery Caulfield may be reduced by residential use, but not eliminated.	Impacts would be similar to those described for Alternative 2. However, increased demolition could result in temporary degradation and disturbance of water features. Existing adverse impacts on the Nike Swale from land use at Battery Caulfield would remain.	Impacts would be similar to those described for Alternative 2. However, increased demolition and new construction would have even greater potential for temporary impacts on water quality. Impacts on the Nike Swale would be potentially greater due to increased residential use at Battery Caulfield.	Construction of the new intersection could result in water resource degradation and disturbance. However, redirection of runoff away from Mountain Lake would offset potential impacts.	Adopted PTMP Mitigation Measures NR-11, NR-13 through NR-17, NR-19, UT-6, and UT-7 would minimize adverse impacts.

Table 2. Summary of Environmental Consequences and Mitigation

IMPACT	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE	PARK PRESIDIO BOULEVARD ACCESS VARIANT	MITIGATION MEASURES ³
BIOLOGY							
Direct and Indirect Effects on Native Plant Communities	There would be potential for indirect effects on native plant communities due to human presence associated with educational and cultural activities.	Compared to the Requested No Action Alternative, the potential for indirect effects due to residential use and expanded educational activity would increase. Human disturbance could favor establishment of weedy vegetation and result in accidental trampling of plants.	Less day use activity would occur compared to Alternative 1, but the potential for indirect effects would be greater than under the Requested No Action Alternative and Alternative 1 due to residential development on the upper plateau.	Indirect effects would increase compared to the Requested No Action Alternative. Fewer indirect effects would occur compared to Alternatives 1 and 2 due to decreased human presence (residents and students) on the upper plateau.	The potential for indirect effects would be the greatest of all the alternatives due to increased tenant occupancy on the upper plateau.	Removal of vegetation would result in direct effects on native plant communities.	Adopted PTMP Mitigation Measures NR-1, NR-5, NR-6, NR-11, and NR-12 would minimize adverse impacts.
Direct and Indirect Effects on Special-Status Plants	Trampling of special-status plant species could occur due to educational and cultural activities.	Compared to the Requested No Action Alternative, the potential for indirect effects would increase due to residential use and expanded educational activity. Human disturbance could favor establishment of weedy vegetation and result in accidental trampling of plants.	Less day use activity would occur compared to Alternative 1, but the potential for indirect effects would increase compared to Requested No Action Alternative and Alternative 1 due to residential development on the upper plateau.	Indirect effects would increase compared to the Requested No Action Alternative. Fewer indirect effects would occur compared to Alternatives 1 and 2 due to decreased human presence (residents and students) on the upper plateau.	Potential for indirect effects would be the greatest of all the alternatives due to increased tenant occupancy on the upper plateau.	No direct or indirect impacts on special-status plants would occur.	Adopted PTMP Mitigation Measures NR-1, NR-3/NR-4, NR-6, NR-11, and NR-12 would minimize adverse impacts.

Table 2. Summary of Environmental Consequences and Mitigation

IMPACT	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE	PARK PRESIDIO BOULEVARD ACCESS VARIANT	MITIGATION MEASURES ³
Direct and Indirect Effects on Native and Special-Status Wildlife	Indirect effects on sensitive wildlife could occur due to human disturbance associated with educational and cultural activity.	Compared to the Requested No Action Alternative, the potential for indirect effects would increase due to construction noise; increases in tenant, visitor, and vehicular and pet traffic; and light, noise, and trash associated with residences and an increase in educational activity.	Less day use activity would occur compared to Alternative 1, but the potential for indirect effects would be greater due to an overall increase in tenant occupancy and conversion of buildings into residences on the upper plateau.	Compared to Alternatives 1 and 2, fewer direct and indirect effects on wildlife would occur due to less building area and decreased human presence (residents and students) on the upper plateau.	Potential for direct and indirect effects would be the greatest of all the alternatives due to additional residential development on the upper plateau.	Direct and indirect effects on nesting birds may occur due to vegetation removal. Increases in traffic and noise at this location could indirectly affect sensitive wildlife in the area.	Adopted PTMP Mitigation Measures NR-1, NR-3/NR-4, NR-5, NR-6, NR-7, NR-9, NR-11, and NR-12, in combination with new Measure NR-X <i>Protection of California Quail</i> , would minimize adverse impacts.

1 Purpose and Need

In accordance with the Presidio Trust Act, as amended (16 USC §§ 460bb appendix) and the Presidio Trust Management Plan (PTMP), the Presidio Trust is proposing to rehabilitate and reuse buildings within the Public Health Service Hospital (PHSH) district of the Presidio, to re-introduce residential uses to the district, and to undertake related site improvements. The project is intended to address the Trust's statutory requirements and the agency's mission, which is to preserve and enhance the cultural, natural, scenic, and recreational resources of the Presidio for public use in perpetuity while making the Presidio financially sustainable. This section describes the Trust, its statutory mandate, and the underlying purpose and need for the proposed action.

1.1 THE PRESIDIO OF SAN FRANCISCO

The 1,491-acre Presidio of San Francisco (Presidio) is one of the country's most beautiful places. Its distinctive resources include historic architecture and landscapes, unique ecological systems and rare plant communities, inviting parklands, an open shoreline, spectacular views, and varied recreational resources. Situated within the San Francisco Bay Area at the center of the 77,000-acre Golden Gate National Recreation Area (GGNRA), the Presidio attracts visitors from near and far.

A military garrison since 1776, the Presidio was designated a National Historic Landmark District (NHLD) in 1962. The Presidio contains one of the country's finest collections of military places, buildings, structures, and artifacts; its architecture represents every major period of U.S. military history since the 1850s. Archeological evidence of Native American inhabitants and early Spanish and Mexican encampments complements this rich architectural heritage.

The Presidio's 770 buildings total approximately 6.1 million square feet and include an array of offices, warehouses, workshops, and residences; over 450 buildings are historic and contribute to the Presidio's NHLD designation. Residential structures include large single-family houses and duplexes, as well as apartment complexes and barracks. The Presidio has facilities and amenities that serve residents, park visitors, and non-residential tenants that include a mix of non-profit and for-profit organizations. The Presidio has its own electric distribution, telecommunication, water, wastewater collection, storm drain, and refuse collection systems and services. The Trust also operates a park shuttle to supplement local and regional transit services.

Dramatic headlands, a favorable climate, unique soils, water resources, and protected open space have contributed to the Presidio's rich biological diversity. Remnant native plant communities preserve rare and endangered plant species and provide valuable wildlife habitat. In addition, the magnificent 300-acre Presidio forest defines the Presidio and sets the park apart from the adjacent city. A planned system of trails, bikeways, and overlooks will improve the visitor experience and enhance recreational opportunities while protecting the park's natural resources.

1.2 FROM MILITARY POST TO NATIONAL PARK

The Presidio's transition from military post to national park began in 1972 when Congress provided that the Presidio would become part of the GGNRA if the military ever declared the post excess to its needs. Congress designated the Presidio for closure in 1989, and in 1994 the U.S. Army transferred jurisdiction to the National Park Service (NPS).

In 1994, during the transition from post to park, the NPS adopted a plan for the Presidio's use and management known as the General Management Plan Amendment (GMPA). As part of the GMPA, the NPS prepared the Presidio Building, Leasing and Financing Implementation Strategy, which estimated annual operating costs to be \$40 million and capital improvements to be in excess of \$500 million. According to the NPS plan, these costs would be funded by a combination of leases and operating agreements, U.S. Treasury and/or private sector resources, a continuing annual congressional appropriation of between \$16 and \$25 million, and philanthropic funds. The GMPA cost estimates indicated that the Presidio was very expensive to manage, particularly in the context of the national park system. It soon became apparent that these costs were more than Congress was willing to support over time. Congress therefore created a new agency charged with improving, protecting, and maintaining the Presidio by using the park's built resources to generate revenue to support the park.

1.3 THE PRESIDIO TRUST AND ITS MANDATE

In 1996, Congress passed the Presidio Trust Act (16 USC §§ 460bb appendix) and established the Presidio Trust, which assumed jurisdiction over the interior 1,100 acres of the Presidio (Area B) on July 1, 1998; the NPS retains control over the coastal areas (Area A). Congress also directed the Trust to become financially self-sufficient by 2013, at which time annual federal appropriations would end.

Congress provided the Trust with the necessary tools to achieve its mission. The Trust is a wholly owned federal government corporation that may generate and retain revenue, lease real property within Area B, make loans, and provide loan guarantees to encourage the use of non-federal funds by third parties to invest in the repair and rehabilitation of the Presidio's historic buildings and infrastructure.

The Trust is governed by a seven-person Board of Directors appointed by the President of the United States. Six members are private citizens and the seventh is the Secretary of the Interior or the Secretary's delegate. The Trust is managed by an executive director and a professional staff with expertise in real estate leasing, finance, development, property management, park stewardship, and natural and cultural resource protection and management.

Since the Trust began operations in 1998, the budget needed to operate, maintain, and enhance the park has borne out the initial estimates of the high costs and complexity of managing the Presidio. In the first years of operation, the Trust focused on upgrading the Presidio's aging infrastructure and rehabilitating the Presidio's most reliable source of revenue – its housing. The Trust also recognized the need to capitalize on a strong real estate market by negotiating long-term leases for several key buildings. In 1998, the Trust began the process to lease a 23-acre site in the Presidio's Letterman district, and in 2002

signed a lease with Letterman Digital Arts Ltd. (LDA) to redevelop the obsolete Letterman Hospital and research center as a digital arts campus.

In addition to the LDA project, the Trust attempted to undertake other rehabilitation and leasing projects, including the PHS. Many members of the public criticized these early projects for departing from the NPS GMPA. The NPS plan was not constrained by the need to make the park financially self-sufficient, however, and it did not provide the flexibility necessary to respond to the real estate market, which is now an important factor in how the Trust must manage the park.

In August 2002, after two years of extensive planning, agency and public input, and public review, the Trust adopted a new management plan for Area B. The Presidio Trust Management Plan (PTMP) provides a general policy framework that balances the preservation of open space and other park resources with building uses that support both the financial needs of the park and the goal of serving the public. The PTMP also emphasizes that the Trust's financial challenge cannot be understood apart from the mandate to preserve and enhance the park. The financial goals and requirements are not an end in themselves, but rather the means to achieve the goal of preserving historic, natural, scenic, and recreational resources.

For more than two years, while preparing the PTMP, the Trust did not undertake any long-term leases. Now that the PTMP has been adopted, the Trust must resume long-term leasing, which is critical to the Trust's ability to rehabilitate its historic structures and to meet its congressionally set financial goals. The Trust must attract tenants and investors with the capacity and expertise to assume the substantial costs of rehabilitating and reusing key Presidio buildings. To that end, the Trust must continue to negotiate long-term leases that are beneficial both to investors and to the park.

1.4 PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of the proposed PHS project is 1) to rehabilitate and reactivate the severely deteriorating historic buildings within the PHS district, particularly the hospital building; 2) to protect the NHL and other historic and cultural resources; 3) to address the health and safety risks to the Presidio and surrounding city neighborhoods from dilapidated and largely vacant buildings within the project site; 4) to improve the unsightly appearance of the existing unimproved landscapes within the project boundary; and 5) to generate revenue for the long-term enhancement of other Presidio resources, and for ongoing operation of the Presidio as a national park site. These purposes and the related need for the proposed action are discussed in more detail below.

1.4.1 Rehabilitate and Reactivate Deteriorated and Unoccupied Historic Buildings

The dilapidated and vacant buildings on the project site pose both a land use and an aesthetic concern. The hospital building is entirely vacant and has been little used for about 20 years. Today, the building is fenced off and its surroundings are either overgrown with weedy vegetation or lacking vegetation. The building's broken windows and dilapidated condition are obvious to the passerby. Many of the other

buildings in the PHSH district are also unoccupied, some are currently boarded up, and most appear abandoned. Vacant buildings are subject to slow deterioration as well as vandalism and destruction of historic building materials. The magnitude of such destruction within the main hospital building can be seen in its interior (see Figure 2) or by comparing its current condition to the conditions during a walk-through inspection by the U.S Army and the NPS in 1994 (NPS 2004a).

The project site's abandoned appearance is incompatible with its park setting. Trust staff members are often asked by members of the public to explain the visibly poor condition of the buildings such as the boarded-up houses on Wyman Avenue, which can be seen from Park Presidio Boulevard and to a lesser extent from nearby Mountain Lake Park. The appearance of the entire south end of the PHSH district strikes most visitors as jarring. The overwhelming sense of decay and deterioration contrasts dramatically with scenic views to the west, natural areas to the west and north, and well-kept residential neighborhoods to the south.

1.4.2 Protect the NHLD and Other Historic and Cultural Resources

As noted earlier, the Presidio was designated a NHLD in 1962. The designation was updated in 1993. According to the 1993 update, the Presidio's "period of significance" dates from 1776 to 1945. Buildings and features within the NHLD are considered "contributing" (to the NHLD) if they were constructed during this period of significance and if they retain sufficient integrity. The 20 historic buildings within the PHSH district total approximately 280,000 square feet, and most were built around 1932, when an earlier hospital complex on the site was replaced.⁴ The project is needed to protect the integrity of the NHLD and to preserve and rehabilitate the contributing historic buildings.

In addition to contributing buildings, the PHSH district includes other character-defining structures, objects, and landscape features that need to be protected as part of the project. These resources are varied and include some open spaces, road alignments, and building orientations. There are also known archaeological resources and possible undiscovered archaeological resources that may lie buried in previously undisturbed areas of the PHSH district.

Section 110 of the National Historic Preservation Act (NHPA) describes the broad historic preservation responsibilities of federal agencies. Under Section 110(f), special provision is to be afforded to National Historic Landmarks like the Presidio, and agencies must "to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm" to a National Historic Landmark. Both the proposed rehabilitation of historic buildings and the proposed cultural landscape improvements are needed to meet the Trust's NHPA obligations, including Section 110(f).

⁴ Of these 20 buildings, 18 are being considered for reuse as part of the current project. Buildings 1451 and 1449 are not part of the project.



Windows are boarded up after excessive glass-breaking.



Surrounded by a security fence, the building and landscape grow increasingly derelict.



Graffiti mars building interiors.



Vandals regularly break in and cause considerable damage.

FIGURE 2. EXISTING CONDITIONS AT THE PHSB

Source: Presidio Trust, 2006

1.4.3 Address Health and Safety Risks

Vacant and dilapidated buildings on the project site pose a health and safety risk and can be most effectively secured through rehabilitation and reuse. Vacant buildings at the site are spread out and difficult for the U.S. Park Police (USPP) – which provides the Trust’s law enforcement services – to monitor effectively. As a result, vandalism is common and unauthorized individuals regularly enter the buildings, severely vandalizing the interiors. The vandalized buildings also show evidence of illicit drug use and unauthorized occupancy by the homeless, raising health and safety concerns due to the absence of power, water, or sanitation systems. During colder weather, there is always a possibility that unauthorized occupants will set fires for warmth, increasing the risk of building damage through uncontrolled fire.

Building vandalism and other property damage can spread from vacant buildings to the areas around them. Graffiti has become more of a problem in the section of the Presidio adjacent to Mountain Lake Park and the PSHH district than in other areas of the park. Vandalism threatens the success of planned trails, trailheads, and scenic overlooks. Substantial investments in these improvements and in interpretive signs, natural areas, and landscape improvements would be unwise until nearby buildings are better secured.

The Trust and the USPP have taken and continue to take steps to reduce the incidence of break-ins and unauthorized use of vacant buildings within the PSHH district. The effectiveness of increased measures appears to have reached a plateau. Common sense suggests that activating vacant buildings or abandoned sites with residents and/or employees can improve site security and reduce vandalism, unauthorized entry, and related crime risks. Rehabilitating and activating buildings with occupants also slows or stops building deterioration.

1.4.4 Improve the Appearance of Existing Landscapes

Developed areas of the PSHH district are characterized by expansive asphalt parking areas and other hardscape, limited landscape buffers, and poorly maintained vegetation that is overgrown in some areas and sparse in others. The unkempt appearance of these areas is incompatible with an actively managed urban and national park setting, and contributes to the district’s vacant and neglected aesthetic. The PSHH project is needed to improve the appearance of parking and landscape areas and make them more compatible with adjacent buildings and the NHL, and to complement planned remediation of old U.S. Army landfills, planned enhancement of natural areas, and planned construction of trails, bikeways, a trailhead, and a scenic overlook. The project is also needed to facilitate implementation of local circulation improvements, including changes to the configuration of Battery Caulfield Road intended to discourage traffic that cuts through the park, and re-creation of the tree-lined entry drive that once extended from 14th Avenue to Building 1801.

1.4.5 Generate Revenue for Presidio Improvements and Operations

The proposed action is needed to generate revenue to support the long-term financial sustainability of the Presidio. Trust Act Section 104(o) requires the Trust to manage the Presidio to become permanently independent of annual federal appropriations by 2013. As federal appropriations decline annually, the Presidio becomes more dependent on other sources of funds to provide for its operating and capital needs. Lease revenues, derived primarily from the Presidio's residential and non-residential rents, are affected by economic swings. In the recent economic downturn, for example, the Trust has seen substantial declines in both non-residential and residential rents. The consensus among real estate industry analysts is that there will continue to be uncertainty in the real estate market, particularly in the non-residential area.

The buildings of the PHS complex are one of only a few remaining opportunities to generate a significant revenue stream sufficient, in aggregate, to support operation and enhancement of the Presidio over the long term. The proposed action is also one of only a few significant opportunities to convert non-residential to residential use, as is called for by the PTMP. Because of the inherent uncertainty about future markets and the yield from future leasing opportunities, the Trust must obtain a substantial and ongoing financial return from the buildings in the PHS district in order to generate a stable base of residential income for the park.

Generating revenue from projects like the PHS is also vitally important because annual appropriations to the Trust are uncertain and have been declining more rapidly than originally anticipated. The Trust's 1998 Financial Management Program (FMP) set appropriation levels considered necessary at that time. These levels have not been met, as illustrated in Table 3 below, and there is no guarantee that appropriations will continue to decline at a gradual rate given increasing demands on the federal budget.

The Presidio is a costly place to operate and maintain on a daily basis, and it has extraordinary needs for capital-intensive improvements. Despite tight control over the Trust's operating costs, these costs are budgeted at \$49.9 million including property management expenses in Fiscal Year 2006 and are expected to grow steadily due to projected increased costs of security and maintenance over the next decade. In addition, necessary capital improvements to the military-post-turned-national-park were estimated at \$589 million in the PTMP. Some of these capital improvements, such as rehabilitation of a subset of the Presidio's historic buildings, will result in increased revenue. Many of the improvements, however, will not generate revenue, but are nonetheless critical to the preservation and enhancement of the Presidio as a national park. These include rehabilitating many of the Presidio's historic buildings, rehabilitating the historic forest, enhancing the Tennessee Hollow watershed, recovering the San Francisco lessingia (a federally listed endangered plant), creating or improving 49 miles of bikeways and trails throughout the Presidio, building a series of scenic overlooks such as Inspiration Point, improving Rob Hill campground, and enhancing the park's historic entries and landscapes. All of these are projects to which the Trust is committed, and all require substantial capital investments not presently available and not projected to be available in the near term unless the Trust can successfully implement some projects that do not simply pay for themselves, but also provide ongoing revenue.

Table 3. Presidio Trust Federal Appropriations, Fiscal Years 2000 to 2006 (in Millions of Dollars)

	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006
Presidio Trust Financial Management Program (FMP) Assumption	24.38	23.75	23.13	22.50	21.88	21.25	20.58
Presidio Trust Budget Request	24.40	23.75	23.13	22.50	21.88	21.25	20.00
President's Budget	24.40	23.40	22.40	21.33	20.70	20.00	20.00
Appropriation	24.40	23.40	23.13	21.33	20.70	20.00	20.00
Less Rescission	-0.17	-0.05		-0.14	-0.26	-0.28	-0.29
Special Transportation & Defense ^a			1.00	1.00	0.41	1.88	
Total	24.23	23.35	23.13	21.19	20.44	19.72	19.71
Difference Between Appropriations and Presidio Trust FMP Assumption	-0.15	-0.40	0.00	-1.31	-1.44	-1.53	-0.87

Source: Presidio Trust 2006.

^a Special appropriations such as "Special Transportation & Defense" are restricted in their use, and thus are not shown in the total available for park operations.

FY = Fiscal Year

The Trust has begun to address its capital investment needs in a variety of ways. For example, the Trust has implemented cost-control measures and has started a philanthropy program. These efforts alone will not nearly meet the park's financial needs, which require that the Trust look to achieving full and fair financial returns on its leasing projects. The Presidio's long-term financial future depends on generating sufficient funds for both capital expenditures and ongoing operating costs. The Presidio's necessary capital expenditures and operating costs, as well as the relationship between them, are discussed in Chapter 4 of the PTMP.

In 2003, the National Academy of Public Administration (NAPA), charged by Congress to provide an independent review of the Trust's accomplishments and challenges, identified a need to bolster the Trust's financial position in order to accommodate the funding needs of the park in the context of faster-than-anticipated declines in federal funding, likely economic down cycles, and potential increases in capital costs (NAPA 2004). NAPA suggested that the Trust capital projections, particularly those related to forest restoration and the protection and enhancement of other non-revenue generating park resources, may be understated. Therefore the need for funds may be greater than anticipated. NAPA also

underscored the importance of residential reuse as an important source of stable revenue that is less prone to fluctuations in the real estate market than commercial uses, and encouraged the Trust to take full advantage of opportunities to generate additional residential revenue.

The Trust believes that the PSHH proposed action is a proposal with revenue-generating potential and that, by generating rent by leasing buildings within the district, the Trust can make progress toward its statutory mandate and the PTMP's stated goals.

1.5 PROJECT OBJECTIVES

The Trust has set the following specific leasing objectives for the PSHH project and has expressed the desire that these objectives be met in balance with one another. Some of these objectives are drawn from Trust Act requirements and others reflect the land use plan and policies set forth in the PTMP. The Trust identified similar objectives in the Request for Qualifications (RFQ) and Request for Proposals (RFP) issued to initiate the effort to select a private development partner for the project.

1.5.1 Historic Resources

The Trust seeks to preserve the historic resources in the PSHH district that contribute to the Presidio's designation as a NHLD. Preservation and rehabilitation of historic buildings within the district is an essential goal of the proposed action, as is ensuring that physical changes are compatible with the NHLD.

1.5.2 Revitalization and Reuse

The Trust seeks to reactivate the project site, to provide land uses that are consistent with the PTMP, and to improve the overall appearance of the area. Under the PTMP, residential use is the preferred use for Building 1801, with residential, educational, and other supporting uses elsewhere in the district. Public access to open spaces is to be preserved.

1.5.3 Traffic and Parking

The Trust seeks to limit traffic and parking demand related to reuse of the project site, and will require prospective tenants to participate in the Trust's transportation demand management program, which encourages alternatives to single-occupant automobile use. The proposed action must include uses or programs that limit traffic and parking demand. Program elements may include use of paratransit, public transportation support, and other incentives and disincentives.

1.5.4 Financial Contribution

The Trust must become financially sustainable over the long term, and seeks a proposal that enhances the financial viability of the Presidio. Revenues support the Trust's congressional mandate to preserve and

protect the Presidio for public use in perpetuity. The Trust therefore seeks to realize substantial economic gain from the few remaining opportunities available to generate a significant revenue stream to support the operation and enhancement of the Presidio.

1.5.5 Design Quality and Environmental Sustainability

The Trust seeks high quality site planning and design, compatible with the NHLD and surrounding neighborhoods, and seeks environmentally sustainable building design, materials, techniques, and construction practices. The Trust also seeks to further a jobs-housing balance at the Presidio and to provide housing for Presidio-based employees as a way to limit energy consumption and auto trips into and out of the park.

1.5.6 Natural Resources

The Trust seeks to protect the undeveloped areas within and adjacent to the PHSB district. These areas shelter many important plant and wildlife habitats, including that of the San Francisco lessingia, a federally listed endangered plant.

2 Alternatives

Five project alternatives are evaluated in this SEIS, with each alternative proposing different treatments for Building 1801 and different amounts of demolition and replacement construction within the PHSH district. The four alternatives from the PHSH Environmental Assessment (EA) are included with the same numbering that was used in the EA (i.e., Alternatives 1, 2, 3, and 4). Alternative 1, the PTMP Alternative and required NEPA “no action” alternative, reflects the Trust’s adopted management plan as analyzed in the PTMP EIS and assumes no building demolition or new construction. In addition, in response to public comments on the PHSH EA, the Trust has included a second no action scenario: the Requested No Action Alternative, which assumes that the Trust would not implement the proposed action at the project site. All five alternatives were developed and modified with the benefit of public input throughout the course of the PHSH environmental review process, as described in Section 4.1, Concurrent Leasing and Environmental Review Process.

This section describes each alternative and highlights similarities and differences among the alternatives, as well as related activities that are common to the alternatives. Related activities would involve changes within the PHSH district that would be carried out whether or not the proposed action proceeds.

Some other alternatives requested by the public fall within the range represented by the five SEIS alternatives, as described in Section 2.9, Other Alternatives. The alternative ultimately selected for adoption by the Trust may combine various elements of the SEIS alternatives, or may fall within the range they represent. Selection or adoption of an alternative cannot occur until the Trust makes the Record of Decision available to the public and concludes the environmental review process.

2.1 CHARACTERISTICS SHARED BY THE ALTERNATIVES

Since this SEIS is tiered from the PTMP EIS, Alternatives 1, 2, 3, and 4 share some common characteristics provided by or derived from the PTMP’s policies, guidelines, and land use plans, including applicable mitigation measures in the PTMP EIS. The Requested No Action Alternative also shares some but not all of these common features, as specifically indicated below. Common characteristics include the following:

- The total building square footage in the district after project implementation would not exceed 400,000 square feet (sf), as stated in the PTMP, and the primary use of Building 1801 would be residential (except in the Requested No Action Alternative, in which the building would remain vacant).
- A prerequisite of any proposed new construction would be the removal of at least an equivalent amount of existing square footage within the district. New construction, if any, may not exceed 130,000 sf.
- The total number of dwelling units Presidio-wide would not exceed the maximum established in PTMP (1,654 units). For alternatives that propose more dwelling units than the PTMP envisioned for

the PSHH district, a reduction in the number of units permitted in one or more other planning districts is required.

- The historic portions of Building 1801 would be rehabilitated (except in the Requested No Action Alternative) in conformance with the Secretary of the Interior’s Standards for Rehabilitation of Historic Properties, and historic rehabilitation tax credits would be used.
- Any new construction would be sited within the PSHH district’s previously developed areas and would be configured and designed to be compatible with the NHLD. Site changes would also conform to planning district guidelines presented in Chapter 3 of the PTMP, and to the more specific Planning and Design Guidelines for the site included in draft form in Appendix A of the PSHH EA. These guidelines would be finalized prior to project implementation, following public review and consultation pursuant to the NHPA.
- Measures would be taken to protect significant native plant communities, endangered species, the natural resources within the Nike Swale, and the local California quail population. These measures are described more fully in Section 3, Affected Environment and Environmental Consequences.
- Except in the Requested No Action Alternative, additional (inbound) access to the site would be provided through the reopened 14th Avenue Gate. Fourteenth and 15th Avenues north of the gates would operate as a one-way couplet as described in the PTMP, unless the Park Presidio Boulevard Access Variant is approved by the California Department of Transportation (Caltrans) and constructed. This option is described below in Section 2.8, Park Presidio Boulevard Access Variant, as a possible complement to Alternatives 1, 2, 3, and 4.
- Cut-through traffic on Battery Caulfield Road would be discouraged by reconfiguring the internal roads and parking area to the west of Building 1801 and adding traffic calming techniques to the roadway.
- Transportation demand management actions would be implemented to reduce traffic as described in Section 2.2, Related Activities Common to All Alternatives, below.
- The Trust’s waste transfer station behind Building 1801 would be relocated to the former Army transfer yard (across from Amatory Loop) or other appropriate location. The composting facilities at the western edge of the parking lot on the upper plateau would remain until a suitable new site can be found. Under all alternatives, surface parking would be eliminated as a potential land use in this area and replaced with open space.
- Existing tenants within the district, Arion Press and Lone Mountain Children’s Center, would be accommodated within the district in all alternatives.
- Finally, the former Nike Missile Site and the former Marine Hospital Cemetery on the upper plateau would be interpreted for visitors as described in Section 2.2, Related Activities Common to All Alternatives, below.

2.2 RELATED ACTIVITIES COMMON TO ALL ALTERNATIVES

The alternatives are consistent with and would accommodate a number of ongoing and previously planned improvements within the PHSB district that will occur regardless of whether the proposed action proceeds. This section describes the nature and status of these improvements, along with the agreements, plans, and policies from which they derive. These related activities are shown in Figure 3.

2.2.1 Remediation Activities

Through its Presidio-wide environmental remediation program, the Trust is assessing and addressing a number of environmentally contaminated sites in or near the PHSB district pursuant to authority transferred from the U.S. Army. All Trust remediation actions are planned and implemented in compliance with governing federal and state environmental cleanup laws, regulations, and environmental agreements that include enforceable requirements and schedules.⁵ The Trust's recommended remedies are subject to a legally required decision-making process that includes formal public notice, review, and comment. Trust remedy decision documents must be approved by the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) or Regional Water Quality Control Board (RWQCB), San Francisco Bay Region, before they can be implemented.⁶

In order to bring environmental cleanup sites into planned reuse most efficiently, the Trust generally expedites remedy implementation by preparing remedial design plans concurrent with the preparation and regulatory review of remedy decision documents. The Trust is using this approach at the PHSB sites so that, once approved, remedies can be implemented in 2007 through 2009. Construction of each remedy will be timed to minimize interference with the PHSB project and reduce impacts on the neighborhood to the maximum extent possible. The following is a general description of the status of each site, based upon the Presidio Trust Revised Feasibility Study Report for the Main Installation sites at the Presidio (Presidio Trust 2003d) and the Draft Landfills 8 and 10 Feasibility Study Report (Erler & Kalinowski, Inc. 2005).

Graded Area 9 "Landfill" – This low-lying area of fill, created by the U.S. Army to construct a soccer field, has an estimated volume of 32,000 cubic yards. Contaminants at the site include low levels of

⁵ The Trust's cleanup responsibility is set out in two 1999 agreements, the Memorandum of Agreement Regarding Environmental Remediation at the Presidio of San Francisco among the Trust, Army, and NPS (Presidio MOA), and the Memorandum of Agreement for Environmental Remediation of Presidio of San Francisco "Area A" Property between the Trust and NPS (Area A MOA). Both agreements are available for review in the Presidio Trust Library.

⁶ Releases of hazardous substances into the environment are cleaned up under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). These cleanup actions are reviewed and approved by the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC). The Trust is subject to a Consent Agreement with DTSC establishing responsibilities and procedures for remediation of hazardous substances at the Presidio. This Consent Agreement identifies the Public Health Service Hospital area as one of nine operable-units Presidio-wide needing cleanup response action. Since CERCLA excludes petroleum from its definition of pollutant or contaminant, the Trust addresses petroleum releases at the Presidio pursuant to State water quality and Underground Storage Tank (UST) programs. These petroleum cleanup actions are overseen and must be accepted by the California Environmental Protection Agency, Regional Water Quality Control Board (RWQCB), San Francisco Bay Region, in accordance with Order No. R2-2003-0080.

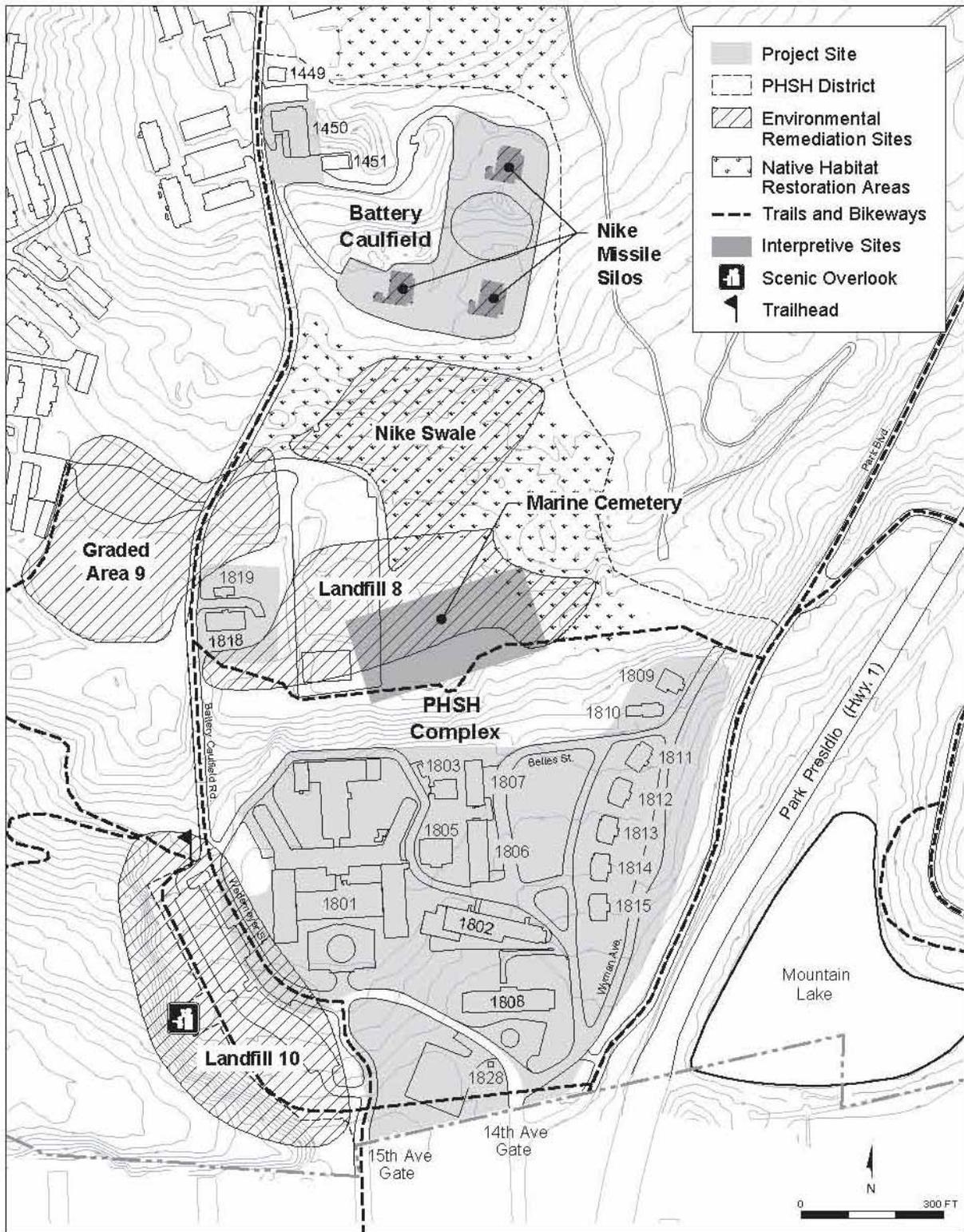


FIGURE 3. RELATED ONGOING ACTIVITIES

Source: Presidio Trust, 2006

metals and pesticides. The Trust plans to use a portion of the clean dune sand now stockpiled at this site as an on-site borrow source for the Landfill 8 and Landfill 10 cover remedies as well as other Presidio remediation and restoration projects. After the stockpiled sand has been removed for other site remedies, the sand remaining at Graded Area 9 will be used to restore dune habitat as part of a cover remedy for the site. This preferred remedy will be subject to future Land Use Controls (LUCs) that would limit certain land uses to ensure the effectiveness of the remedy.

Landfill 8 – Landfill 8 is about 28,000 cubic yards of soil and construction debris underlain by the former Marine Hospital Cemetery. The landfill is covered by an asphalt parking lot, soil, and tennis courts. Contaminants in the fill include metals, semi-volatile organic compounds (SVOCs), and pesticides. The preferred remedial alternative for Landfill 8 is to excavate the east and west “wings” of the landfill, cover the remaining central portion of the landfill with a permeable dune sand cover, and monitor groundwater. This preferred remedy will be subject to future LUCs that would limit certain land uses to ensure the effectiveness of the remedy.

Landfill 10 – Landfill 10, the Presidio’s largest landfill, contains about 140,000 cubic yards of soil, debris, and building demolition rubble. The rubble was placed at the site by the U.S. Public Health Service to build a large parking lot for the expanded hospital building in the mid- to late-1950s. Contaminants in the fill exceeding human or ecological cleanup levels include arsenic, barium, chromium, cobalt, copper, lead, nickel and zinc, polynuclear aromatic hydrocarbons (known as PAHs), and petroleum hydrocarbons. The preferred remedy for Landfill 10 is to stabilize the landfill by cutting back the slope, cover the landfill with a permeable dune sand cover, and monitor groundwater. This preferred remedy will be subject to future LUCs that would limit certain land uses to ensure the effectiveness of the remedy.

Nike Missile Site – At the Army’s former Nike Missile facility, a series of ditches and subsurface storm drains are contaminated with subsurface inorganic contaminants (i.e., metals) and PAHs. Cleanup is expected to include removal of contaminated soil and sediments in the ditches and storm drains, and groundwater monitoring to confirm removal of contamination sources. This preferred remedy may be subject to future LUCs that would limit certain land uses to ensure the effectiveness of the remedy.

Nike Swale – This site, immediately south of the Nike Missile Site, is an area of riparian scrub vegetation, including native dune plants, willows, and seasonal wetlands that receive runoff from the former missile facility. The site may be contaminated with PAHs due to transport of substances through subsurface drains that surface adjacent to and within the swale area. The expected environmental remedy includes excavation of contaminated soil and sediments. Remediation of the site will be conducted in close coordination with natural resources staff of both the Trust and the NPS to avoid damaging ecological resources at the site. No LUCs are anticipated for the remedy at this site.

2.2.2 Protection of Natural Resources and Revegetation of Remediation Sites

Portions of the upper plateau of the PHSH district support remnant native habitat and associated rare plants that include coast live oak woodland, central dune scrub, and freshwater wetland, as well as the San Francisco lessingia, a federally listed endangered plant. The complex array of vegetation in this area and the area immediately north of the PHSH district also provides valuable habitat for the largest known California quail population in San Francisco, as well as other wildlife. According to the U.S. Fish and Wildlife Service (USFWS) recovery plan for the San Francisco lessingia (and other listed species not occurring within the district), the dune slope immediately behind Building 1801 that currently supports a stand of cypress trees serves as a buffer between the built (lower) and generally unbuilt (upper) portions of the district.

Pursuant to the adopted Presidio Vegetation Management Plan (VMP), the Trust and its partners will protect and restore these natural areas over time through the park's stewardship program.⁷ Activities to date include creating brush piles (for use by California quail and other wildlife), removing invasive plants, planting native plants, collecting seeds, and monitoring wildlife and plants. Future actions will include revegetation of remediation sites including Graded Area 9, Landfill 8, portions of Landfill 10, and the Nike Swale. (Other portions of Landfill 10 will remain paved as surface parking and lie within the "designed landscape" zone of the VMP.) Revegetation will use native plant species, and will be designed to enhance habitat values and contribute to the recovery of the San Francisco lessingia.

In addition, the Trust will implement the appropriate mitigation measures from the PTMP EIS and recovery measures from the USFWS recovery plan, including minimizing changes to the local hydrology, limiting development to already built or disturbed areas within the project site, continuing to separate the existing PHSH buildings from the upper plateau through the "Hospital Buffer Zone,"⁸ and restoring native vegetation suitable for the expansion of the San Francisco lessingia populations north of the buffer zone.

The PHSH district is sited on a ridge that drains west to Lobos Creek (the source of the Presidio's drinking water) and east to Mountain Lake, one of the few remaining natural lakes in San Francisco and one of the park's most significant natural resources. The Trust will provide for the continued health of the lake and quality of the drinking water supply by directing storm water runoff away from the adjacent watersheds, encouraging storm water infiltration, and carrying out other measures included as mitigation in the PTMP EIS.

2.2.3 Development of Trails and Bikeways

Following a four-year planning and environmental review process, the Trust and the NPS adopted the Presidio Trails and Bikeways Master Plan in July 2003 (NPS and Presidio Trust 2003). The PHSH

⁷ The VMP was subject to its own environmental analysis under the NEPA. See the Presidio of San Francisco Vegetation Management Plan and Environmental Assessment, National Park Service & Presidio Trust, 1999.

⁸ See Figure 24.

project would be compatible with and allow for improvements to existing trails and bikeways, and would allow development of new trail and bikeway corridors within the district consistent with this plan. The Juan Bautista de Anza National Historic Trail will be improved as a multi-use trail along the southern and western boundaries of the site. Other key trail extensions will include the Lobos Creek Valley Trail to the west, the West Pacific/Mountain Lake Corridor to the north, the Park Boulevard Trail to the northeast, and City Bicycle Route #69 (following Battery Caulfield Road, Wedemeyer Street, and 15th Avenue). A scenic overlook and trailhead, which will include informational signs, bicycle racks, and possibly a restroom, is also proposed near the southwest corner of the site. The trail and bikeway improvements will provide a clear path system and signage, offer access to surrounding destinations such as Mountain Lake and Lobos Valley, and connect to the local and regional trails system.

2.2.4 Interpretation of Nike Missile Site and Former Marine Hospital Cemetery

Consistent with PTMP policies, both the Nike Missile Site and the former Marine Hospital Cemetery will be interpreted through wayside exhibits, signs, and/or memorials. Through historic photos and text, the Nike Missile Site exhibit will describe the site's interconnection with the other Nike sites in San Francisco and the Bay Area and the design and mission of the entire Nike national missile defense system, providing a larger context for the Presidio's role in the Cold War era. The exhibit will also promote and direct visitors to the NPS reconstructed Nike site at Fort Barry in the Marin Headlands.

The former Marine Hospital Cemetery commemoration will honor those interred in the cemetery. The cemetery is thought to contain approximately 558 graves of seamen who had been treated in the adjacent hospital between 1885 and 1912.

2.2.5 Implementation of Transportation Demand Management Actions

With the PTMP, the Presidio Trust adopted an aggressive transportation demand management (TDM) program to reduce overall reliance on the automobile. Building tenants within the PHS district will participate in the park-wide TDM program components that are sponsored by the Trust, and will be required to develop their own complementing measures. The Trust's program includes the following measures:

- A parking management program, including a parking regulation and fee program;
- A clean-fuel shuttle bus serving the entire Presidio with direct connections to MUNI and Golden Gate Transit routes;
- A guaranteed ride home program, which provides "commuter insurance" for employees using alternative forms of transportation;
- A car-sharing program to provide participants with access to a vehicle without their having to own a car;
- Transit pass sales coordination, including transit pass sales;

- Employee transportation survey coordination and tabulation;
- Vanpool coordination;
- A website with a section dedicated to information on transportation and commute alternatives;
- Mandatory participation and commitment to trip-reduction requirements by all non-residential tenants;
- Transit and ride-sharing information disseminated on kiosks within the park, the Presidio Trust’s website, and employee orientation programs;
- Event-specific TDM programs for all special events;
- Periodic monitoring of traffic volumes and mode choice among Presidio residents and employees;
- Supplements to MUNI express bus service to regional transit connections (i.e., BART and the Transbay Terminal); and
- Secure bicycle parking.

2.3 REQUESTED NO ACTION ALTERNATIVE

Under the Requested No Action Alternative, the proposed PHSB project would not be implemented now or in the future, and only existing and recent activities within the project site would continue. The site would be managed only to the minimum extent needed consistent with applicable laws and regulations to protect public health and safety and park resources. There would be no significant physical change over existing conditions; no additional building rehabilitation, new construction, or demolition would occur. Only buildings that have been rehabilitated and occupied in recent years would be leased out for appropriate uses, which would most likely include cultural/educational, office, and supporting uses. Arion Press and Lone Mountain Children’s Center would remain as existing tenants in Buildings 1802 and 1806, respectively. Buildings 1803, 1805, and 1808 would be leased for office or cultural/educational uses (similar to the former Trust tenant, the Jewish Community Center), and the Trust would continue to use Building 1450 and Battery Caulfield for maintenance facilities. The remaining vacant buildings would be deactivated for an extended period of time, protected from weather, stabilized, and secured from vandalism as funding permits through a process known as mothballing. Site improvements would be limited to those undertaken as part of other ongoing Trust plans, programs, or projects, such as remediation of old U.S. Army landfills and implementation of the Presidio Trails and Bikeways Master Plan.

2.3.1 Building Uses and Character

Current and recently rehabilitated and occupied buildings would be leased to provide about 68,000 sf of non-residential use, including 53,000 sf for schools and/or community facilities offering cultural/educational and/or recreational programs, and 5,000 sf for offices. As these buildings have been sufficiently upgraded to correct fire and life safety deficiencies, only cosmetic repairs would be made.

Physical repairs to Building 1801 and other vacant buildings would include only those necessary to slow down the deterioration of the buildings while unoccupied and reduce vandalism, break-ins, and potential for arson and sudden loss.

2.3.2 Circulation and Parking

Road access and parking locations throughout the PHSH district would remain as they are currently, with the exception of the large parking lot to the west of Building 1801, which would be reconfigured following remediation to accommodate trail-related public access improvements. No other major road or parking improvements would be undertaken under the Requested No Action Alternative. The 14th Avenue Gate would not be reopened, and 15th Avenue would continue to provide access between the PHSH district and the city to the south. Battery Caulfield Road would continue to provide secondary access from the north. Approximately 276 parking spaces would remain in the district to serve continued uses.

2.3.3 Landscaping

Minimal landscape rehabilitation would occur under this alternative. Minor alterations may be made or plantings added to meet continuing or new uses while retaining the landscape's historic character. Existing features that contribute to the landscape's historic character would be preserved.

2.3.4 Public Amenities and Access

This alternative would not include any site amenities such as a café for visitors, and few actions would be taken to expand visitor opportunities. Improvements to the surrounding network of trails and pathways would be made in accordance with the Presidio Trails and Bikeways Master Plan to connect pedestrians and bicyclists with nearby local and regional trails and surrounding destinations such as the Presidio Golf Course, Mountain Lake, and Lobos Valley. Tenants would have discretion in offering publicly available programs.

2.3.5 Sustainability

Under this alternative, Buildings 1803, 1805, and 1808 would be reused by tenants whose spatial and programmatic needs match the size, spatial configuration, massing, traffic, and utility provisions of the already rehabilitated and presently or recently occupied buildings so that little or no reconstruction would be necessary. Environmentally sustainable practices would be explored and implemented to the extent practicable when carrying out routine administrative and facility management. Tenants would be required to participate in the Presidio's energy and water conservation and waste recycling programs.

2.3.6 Construction

This alternative would not result in any substantial construction activity at the site.

2.3.7 Financial Considerations

Mothballing of vacant buildings under the Requested No Action Alternative would cost an estimated ten percent of the cost of full rehabilitation, or about \$8.2 million.⁹ Based on rents received in recent years, the alternative could generate approximately \$0.8 million in annual base rent and \$0.2 million in service district charges (SDC) for a total \$1.0 million in revenue (see Appendix A).¹⁰ No private development partner(s) would be involved, since no building rehabilitation, demolition, or new construction would occur.

2.4 ALTERNATIVE 1: PTMP ALTERNATIVE

Alternative 1, the PTMP Alternative, represents the Final Plan Alternative analyzed in the PTMP EIS. The alternative would rehabilitate buildings within the PHS district to accommodate residential and educational uses consistent with land use assumptions in the PTMP EIS and assumes no demolition or new construction within the district. Alternative 1 is considered the required NEPA “no action” alternative and serves as a benchmark for comparison, allowing the reader to understand the extent to which other alternatives are consistent with the adopted management approach and intensity of land use provided for in the PTMP.¹¹

Under this alternative, with no demolition or new construction within the district, the existing total building area of 400,000 sf would remain in its current configuration, with development concentrated on the lower plateau (see Table 4). Battery Caulfield would continue to be used in the short term as a maintenance/corporation yard.¹² The historic portion of Building 1801 and its non-historic additions, including the seven-story end “wings,” would be rehabilitated for primarily residential use (approximately 200 units) together with the historic housing along Wyman Avenue (approximately 12 units). Some non-historic portions of Building 1801 would be used to accommodate an educational use or uses compatible with residential occupancy of the remainder of the building. Other buildings on the lower plateau would contain education-related and accessory uses. Ancillary buildings on the upper plateau, including Buildings 1818, 1819, and 1450, would be rehabilitated for a variety of office, educational, and supporting uses over time (see Figure 4).

⁹ For the cost of mothballing, see Sharon C. Park, AIA, “Mothballing Historic Buildings,” National Park Service Technical Preservation Services, Preservation Brief Number 31, 1993.

¹⁰ To compare their revenue-generating potential, the alternatives were analyzed using a consistent set of financial assumptions, including the lease term, project financing, and the income potential of dwelling units of various sizes (see Appendix A). Development and/or lease agreements negotiated for the project would determine the actual financial terms and revenue associated with the selected alternative.

¹¹ See Response to Comment A.2.2, PTMP vs. Existing Conditions as the No Action Alternative, on pages A-8 to A-10 in Appendix A of the Draft SEIS for further explanation. See also Question 3, Forty Most Asked Questions Concerning CEQ’s NEPA Regulations (46 Fed. Reg. 18,026 (1981) *amended by* 51 Fed. Reg. 15,618 (1986)) in which the Council on Environmental Quality explains two interpretations of no action that may be appropriate and reasonable in different situations.

¹² If Battery Caulfield were eventually made available for open space, additional planning would be required to determine the configuration and character of that open space, including the potential for active recreation areas and/or increased native plant habitat. No funding source has been identified for near-term planning or implementation of land use changes in this area.

Table 4. Range of Alternatives under Consideration for the PHSB Project

	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1: PTMP ALTERNATIVE	ALTERNATIVE 2: WINGS RETAINED/ TRUST REVISED ALTERNATIVE	ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE	ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE
Preservation of Historic Portion of Building 1801 and other Historic Buildings	“Mothballed”	Yes	Yes	Yes	Yes
Removal of Non-Historic “Wings” of Bldg. 1801	No	No	No	Yes	Yes
Maximum Building Area	400,000 sf (68,000 sf occupied)	400,000 sf	400,000 sf	275,000 sf	362,000 sf
Proposed Uses within PHSB Complex on Lower Plateau	Cultural/Educational (53,000 sf) & Office/Accessory Uses (5,000 sf)	Residential (up to 210 units) & Other Uses ^a (173,000 sf)	Residential (up to 217 units) & Other Uses ^a (65,000 sf)	Residential (up to 230 units) & Other Uses ^a (25,000 sf)	Residential (up to 192 units) & Other Uses ^a (28,000 sf)
Proposed Uses within Battery Caulfield and Existing Buildings ^b on Upper Plateau	Maintenance/Corporation Yard (Existing Use) & Trust Facilities in Building 1450 (10,000 sf) (Existing Use)	Maintenance/Corporation Yard (Existing Use) & Other Uses ^a (17,000 sf) within Existing Buildings	Maintenance/Corporation Yard (Existing Use), Residential (up to 13 units) & Other Uses ^a (2,000 sf) within Existing Buildings	Maintenance/Corporation Yard (Existing Use) & Other Uses ^a (17,000 sf) within Existing Buildings	Residential (up to 64 units) within New Construction, Residential (up to 13 units) & Other Uses ^a (2,000 sf) within Existing Buildings
Underground Parking	No	No	Yes	No	No
Parking Spaces	276	537	452	330	267
Maximum Demolition	0	0	32,000 sf	125,000 sf	116,000 sf
Maximum New Construction	0	0	32,000 sf	0	73,000 sf
Senior (Independent & Assisted Living) Units	0	0	0	0	155
Affordable Housing Units	0	0-42	0	0-46	0
Maximum Dwelling Units	0	210	230	230	269
Average Unit Size ^c	NA	696 sf	1,025 sf	699 sf	865 sf
Total Bedrooms ^c	NA	233	367	253	385

Source: Presidio Trust 2006.

^a Other Uses = Mix of office/accessory uses and cultural/education-related uses. Includes the retention of some existing tenants and Trust facilities.

^b Includes Buildings 1818, 1819, and 1450.

^c See Appendix A.

sf = square feet

NA = not applicable

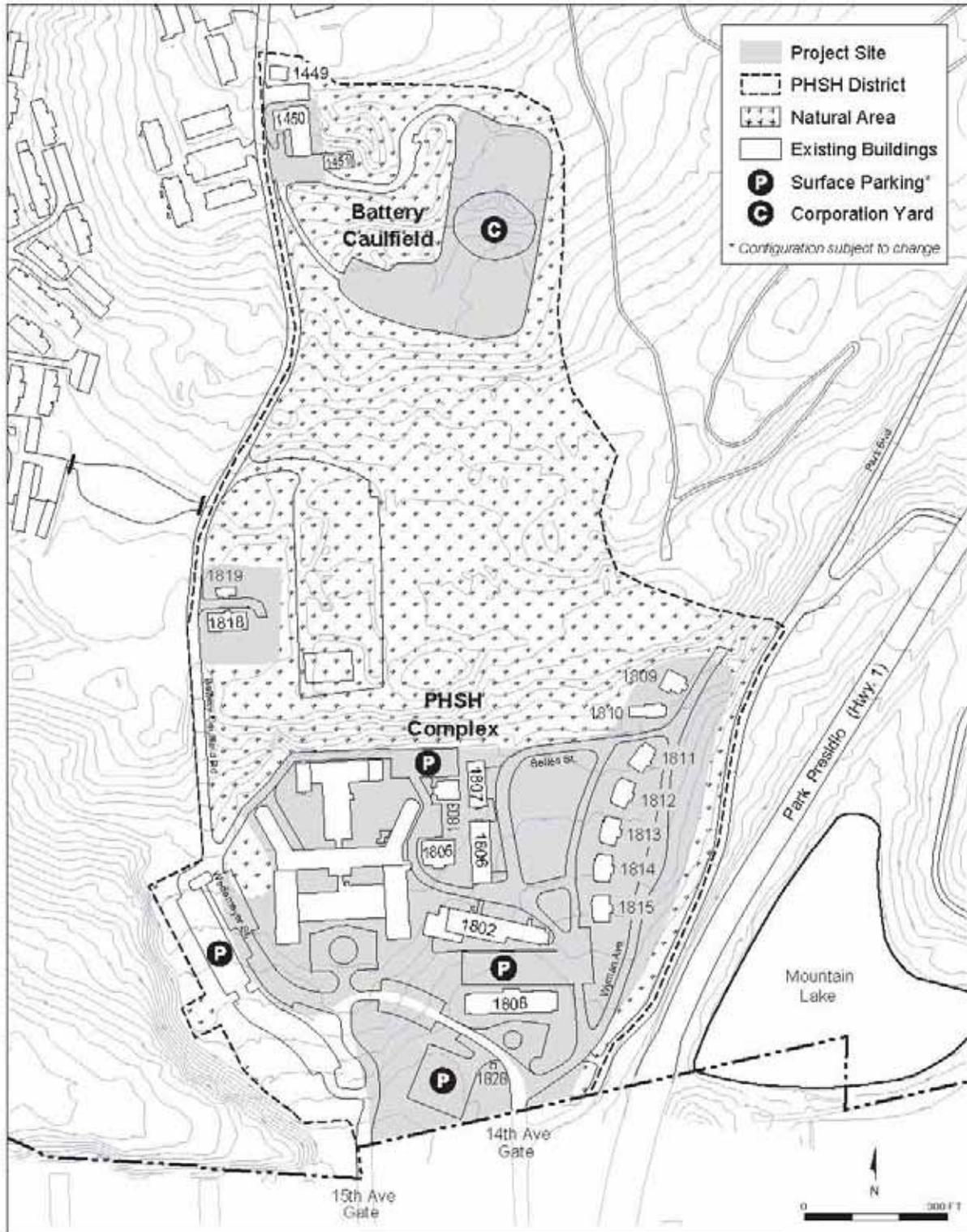


FIGURE 4. ALTERNATIVE 1: PTMP ALTERNATIVE

Source: Presidio Trust, 2006

2.4.1 Building Uses and Character

Historic and non-historic buildings within the PHSB district would be retained and rehabilitated to provide about 210 dwelling units and 190,000 sf of non-residential (mostly educational) uses. Attention would be paid to repairing and restoring character-defining features of historic buildings and incorporating compatible adaptive uses into the buildings. Historic portions of Building 1801, along with housing along Wyman Avenue, would be rehabilitated for residential uses. Non-historic portions of Building 1801 would be used for a mix of educational and residential uses. Smaller historic structures in the district would be restored to their original design and character for cultural/educational and accessory uses. All existing non-historic buildings and additions would remain. Educational uses would include schools and/or community facilities offering educational and/or recreational programs.

2.4.2 Circulation and Parking

Roadway circulation and parking throughout the PHSB district would be reconfigured to improve traffic flow, reduce auto traffic, and create a safer environment for pedestrians and residents. The 14th Avenue entrance would be reopened, and 14th and 15th Avenues would operate as a one-way couplet at and north of the Gates, providing access to and from the PHSB district and the city to the south (unless the Park Presidio Boulevard Access Variant is implemented as discussed in Section 2.8 below). Roads within the site would be designed to discourage access to and from the north. However, Battery Caulfield Road would be retained for secondary access. Traffic calming techniques would be used to slow traffic as it passes through the district. Parking and loading areas would be located to complement and minimize conflicts with adjacent areas. The large parking lot to the west of Building 1801 would be reduced in size following remediation activities, and additional parking areas would be added between Buildings 1802 and 1808 and north of Building 1801. A total of 537 parking spaces would be provided in the district to serve proposed uses.

2.4.3 Landscaping

The alternative would incorporate plantings to better define historic open spaces and entry sequences. Landscape features and elements that would be enhanced include the hospital's front lawn and tree-lined entry roads, and the Wyman Avenue houses' landscapes and tree plantings. Landscape treatments would also be used to provide appropriate screening and visual buffers from surrounding areas.

2.4.4 Public Amenities and Access

The alternative would include amenities such as a café and restrooms for visitors. Connections to the surrounding network of trails and pathways would be made in accordance with the Presidio Trails and Bikeways Master Plan to link pedestrians and bicyclists with nearby local and regional trails and surrounding destinations such as the Presidio Golf Course, Mountain Lake, and Lobos Valley.

2.4.5 Existing Tenants

Arion Press and Lone Mountain Children’s Center would remain as existing tenants in Buildings 1802 and 1806, respectively. The non-historic addition on Building 1802 may be rehabilitated for additional space.

2.4.6 Sustainability

The alternative would incorporate sustainable development and building practices consistent with the Trust’s draft Green Building Guidelines. Examples of such measures would include energy conservation and efficiency strategies, indoor environmental and air quality management, and resource efficiency practices such as construction waste management, storm water management, and water-efficient irrigation systems.

2.4.7 Construction

The duration of the building rehabilitation phase would be between two and three years, since the project may require multiple phases and development partners. The number of round trips taken by trucks on the site is estimated to be about 1,300 during the course of rehabilitation. This total represents an average of between two and three truck round trips per day, although the frequency of trips would fluctuate.

2.4.8 Financial Considerations

Alternative 1 would cost approximately \$93.2 million, not including site improvements outside the leasehold boundary such as the landscape and parking areas west of the main hospital building and utilities leading to the site. This alternative assumes the Trust would rehabilitate several buildings (Buildings 1450, 1802, 1806, 1807, 1808, 1809 to 1815, 1818, and 1819) and the private development partner(s) would rehabilitate Buildings 1801, 1803, and 1805. The total cost would be shared by the Trust (approximately \$21.4 million) and the private development partner(s) (approximately \$71.8 million).

Alternative 1 is financially feasible. The alternative could generate a minimum of \$0.57 million in annual base rent from the development partner(s), \$1.8 million in direct rent from users, and \$1.3 million in SDC for a total of \$3.7 million in revenue to the Trust in 2010, the first “stabilized” year of project operation. Over a 70-year lease term, the alternative would generate an estimated \$658 million in total revenue to the Trust to help fund preservation and enhancement of the Presidio’s natural, cultural, scenic, and recreational resources (see Appendix A). In addition, this alternative would generate net operating income (NOI) to the private development partner(s) of \$6.38 million in 2010, which represents an internal rate of return (IRR) to the private development partner(s) of 11.7 percent, which should be sufficient to induce a developer to undertake this type of historic preservation project.

2.5 ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE

Alternative 2, the Wings Retained / Trust Revised Alternative, would rehabilitate historic buildings within the PSHH district and would concentrate and locate development on the lower plateau for primarily residential use. Up to 230 units would be developed, which represents a decrease of 120 from the 350 dwelling units analyzed in the Draft SEIS. Both the historic portion and non-historic wings of Building 1801 would be rehabilitated. Up to 32,000 sf of non-historic buildings, including the front connector and two-story rear additions of Building 1801, would be removed and replaced with an equivalent amount of compatible infill construction at the rear of the main hospital building. New construction would occur in conformance with the PTMP planning district guidelines and the more specific draft Planning and Design Guidelines included as Appendix A of the PSHH EA. No new buildings would be constructed at Battery Caulfield, which would remain in the short term as a maintenance/corporation yard. Existing buildings on the upper plateau may be improved for residential and related uses (such as a community center) as part of the project, or may be rehabilitated by the Trust for non-residential uses over time. Building square footage within the PSHH district would not exceed 400,000 sf (see Figure 5).

2.5.1 Building Uses and Character

Historic buildings within the district would be retained and rehabilitated. Non-historic buildings and existing additions would be substantially retained, but up to 28,000 sf may be removed and replaced. Attention would be paid to repairing and restoring character-defining features and adapting the historic structures to new uses. Building 1801 would be converted into an apartment building, with a mix of studio and one- and two-bedroom apartments. The 1950s wings would remain and their exterior would be re-clad with materials in keeping with but distinct from the historic building. The non-historic central loggia would be removed. Two floors would be added to the rear central wing, which would remain lower in height than the main hospital building.

The Wyman Avenue residences would be rehabilitated consistent with their original design and character and used as housing. The duplexes would remain as such, and the single-family houses would either continue as three-bedroom units or each be subdivided into two two-bedroom units.

Compatible new uses, primarily residential, would be included in the other historic buildings, and alterations to character-defining features or significant spatial reconfigurations would be avoided.

2.5.2 Circulation and Parking

Fourteenth and 15th Avenues would operate as a one-way couplet at and north of the gates, providing access to and from the PSHH district and the city to the south (unless the Park Presidio Boulevard Access Variant is implemented as discussed in Section 2.8 below). Access to the district from other parts of the Presidio would continue along Battery Caulfield Road. Through-traffic would be discouraged, however, by reconfiguring the road west of the PSHH. Traffic calming techniques would be used to slow traffic as it passes through the site.

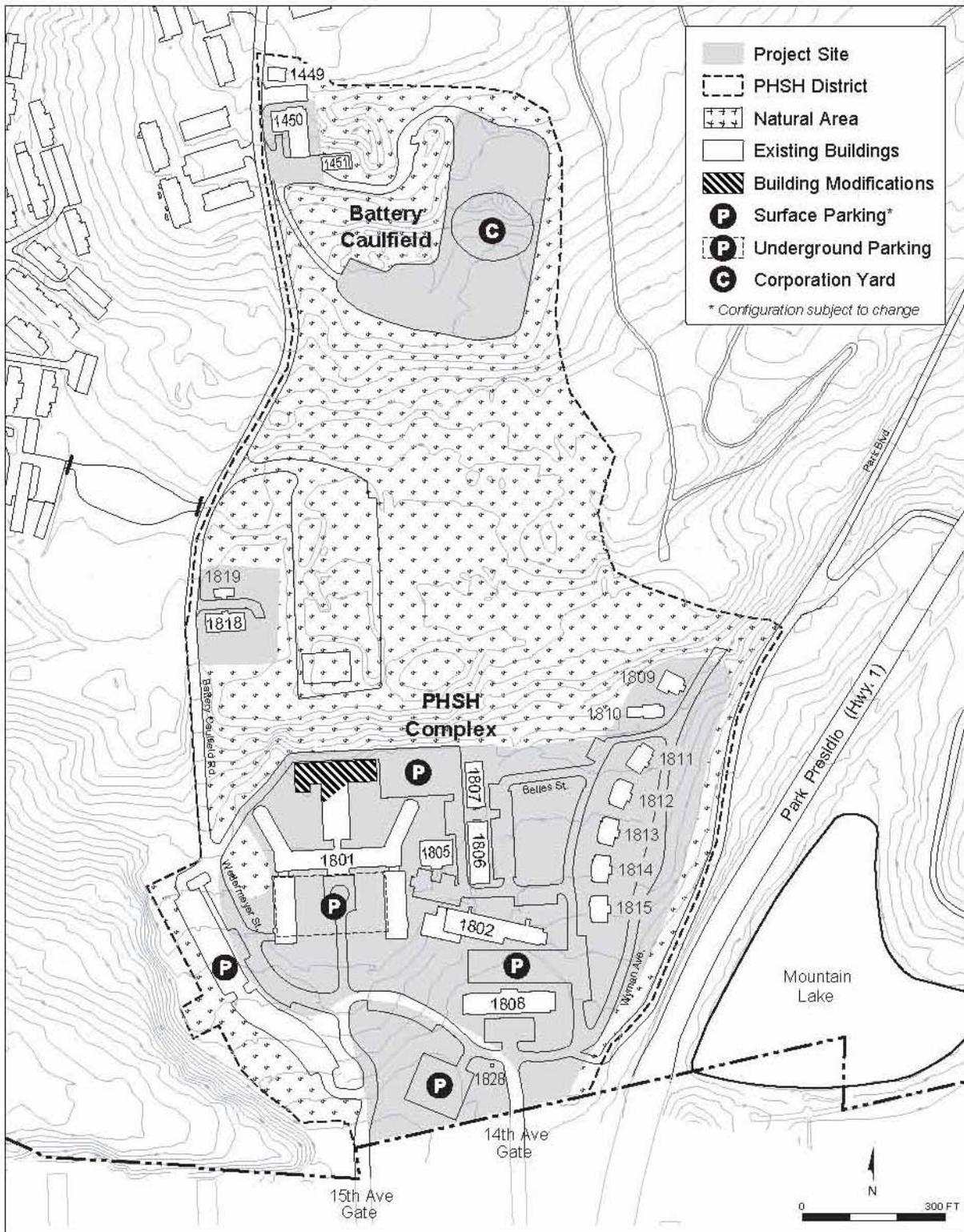


FIGURE 5. ALTERNATIVE 2: WINGS RETAINED / TRUST REVISED ALTERNATIVE

Source: Presidio Trust, 2006

Parking and loading areas would be located to complement and minimize conflicts with adjacent areas. Parking would be provided in small lots convenient to building access points on the lower plateau. An underground parking garage with approximately 123 spaces would be located on the lower plateau below the courtyard between the wings of Building 1801. The parking lot to the west of Building 1801 would be reduced in size and reconfigured to discourage cut-through traffic on Battery Caulfield Road following remediation of Landfill 10. A new parking lot would be developed behind Building 1801 to serve the residents of Building 1801. On-street parking would be provided along many of the streets to accommodate visitors and guests. Alternative 2 would accommodate up to 452 parking spaces, consisting of 431 spaces on the lower plateau and 21 spaces adjacent to Buildings 1818, 1819, and 1450. The large parking lot immediately north of Building 1801 on the upper plateau would not be reused.

2.5.3 Landscaping and Habitat Restoration

Alternative 2 would include a new landscape design compatible with the historic landscape of the district and with the VMP as amended. Major trees and significant stands that frame views and articulate open space would be retained. The existing entry drive to Building 1801 would be preserved, and the lawn in front of the building would reflect the historic character of the site while accentuating a well-defined entry court. The formal front lawn would be developed with paths and trees. The historic character of the Central Green and Wyman Avenue residences would be maintained with lawns and trees.

Trees would be planted near the south entrance to the project to create a buffer between the project and the adjacent residential area. Dune scrub vegetation would be planted in the area west of the reconfigured parking lot along the west side of the project. The woodland area to the east of the Wyman Avenue residences along Park Presidio Boulevard would be enhanced. Landscaping within the district would not include use of invasive non-native species that could compete with sensitive plant species on the upper plateau.

2.5.4 Public Amenities and Access

Alternative 2 would include outdoor amenities, as well as a recreation center in Building 1805 to serve the project and nearby neighborhood. The alternative also assumes improvements to existing and proposed trails, including the Juan Bautista de Anza National Historic Trail, the West Pacific/Mountain Lake Corridor, and the Lobos Creek Valley Trail, to improve bicycle and pedestrian circulation and connect the Presidio trail system to the existing regional network in accordance with the Presidio Trails and Bikeways Master Plan.

2.5.5 Existing Tenants

Arion Press and Lone Mountain Children's Center would remain as existing tenants in Buildings 1802 and 1806, respectively. The non-historic addition on Building 1802 may be either removed or rehabilitated for additional space.

2.5.6 Sustainability

The alternative would incorporate sustainable development and building practices. The “green building” measures would be consistent with the Trust’s draft Green Building Guidelines and would qualify for a Leadership in Energy and Environmental Design (LEED) rating, indicating a high level of sustainable design. Examples of such measures would include energy conservation and efficiency strategies, indoor environmental and air quality management, and resource efficiency practices such as construction waste management, storm water management, and water-efficient irrigation systems.

2.5.7 Construction

The duration of the construction phase would be between 21 and 24 months, potentially excluding rehabilitation of Buildings 1450, 1818, and 1819, which could be deferred to a later date. The number of round trips taken by truck on the site is estimated to be up to 4,000 during the course of construction. Approximately 30 to 50 percent of these trips would be related to excavation for and construction of underground parking. The total represents an average of about five to eight truck round trips per day. The frequency of trips would fluctuate, however, with the most trips (as many as 50 round trips per day) occurring during demolition and excavation. Trips are expected to decrease during concrete construction and again during construction of the interiors. On-site reuse of demolition debris, which would reduce the number of truck trips during that phase, would be explored.

2.5.8 Financial Considerations

Alternative 2 is financially feasible. It would cost approximately \$121.8 million, not including site improvements outside the leasehold boundary such as the landscape and parking areas west of the main hospital building and utilities leading to the site. This alternative assumes the Trust would rehabilitate Buildings 1450, 1802, 1806, 1807, 1808, 1809 to 1815, 1818, and 1819 and the private development partner(s) would rehabilitate Buildings 1801, 1803, and 1805. Total costs would be shared by the Trust (approximately \$19.5 million) and the private development partner(s) (approximately \$102.3 million).

Alternative 2 would generate a minimum of \$0.68 million in annual base rent from the development partner(s), \$1.9 million in direct rent from users, and \$1.1 million in SDC for a total \$3.7 million in revenue to the Trust in 2010, the first “stabilized” year of project operation. Over a lease term of 70 years, the alternative would generate in the area of \$658 million in total revenue to the Trust to help fund preservation and enhancement of the Presidio’s natural, cultural, scenic, and recreational resources (see Appendix A). In addition, this alternative would generate NOI to the private development partner(s) of \$6.5 million in 2010, which represents an IRR to the private development partner(s) of approximately 9.9 percent, which should be sufficient to induce a developer to undertake this type of historic preservation project.

2.6 ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE

Alternative 3, the Wings Removed Alternative, would rehabilitate historic buildings within the PHSB district, remove the non-historic wings of Building 1801 and other non-historic buildings and additions, and provide no replacement construction at Battery Caulfield or elsewhere within the district. Total building square footage in the district would decrease to about 275,000 sf. Buildings would be rehabilitated for primarily residential use (up to 230 units). The Battery Caulfield site would remain in the short term as a maintenance/corporation yard. Outlying buildings would continue to serve as Trust maintenance facilities in the short term, and would be rehabilitated for non-residential uses over time (see Figure 6).

2.6.1 Building Uses and Character

Historic buildings within the district would be retained and rehabilitated. Attention would be paid to repairing and restoring character-defining features and adapting the historic structures to new uses. Building 1801 would be converted into an apartment building with a mix of studio and one-bedroom apartments. The Wyman Avenue residences would be rehabilitated consistent with their original design and character and used for housing. New uses, primarily residential, would be included in the other historic buildings, and character-defining features or original spatial configurations would be preserved.

2.6.2 Circulation and Parking

Fourteenth and 15th Avenues would operate as a one-way couplet at and north of the gates, providing access between the PHSB district and the city to the south (unless the Park Presidio Boulevard Access Variant is implemented as discussed in Section 2.8, below). Roads within the site would be designed to discourage cut-through traffic, with Battery Caulfield Road retained for secondary access. Traffic calming techniques would be used to slow traffic as it passes through the district. Parking and loading areas would be located to complement and minimize conflicts with adjacent areas. The large parking lot on the upper plateau would not be reused. The parking lot to the west of Building 1801 would be reduced in size following remediation activities to accommodate planned public access improvements. A total of 330 parking spaces would be provided to serve proposed uses, consisting of 18 spaces on the upper plateau and 312 spaces on the lower plateau.

2.6.3 Landscaping and Habitat Restoration

The alternative would incorporate plantings to better define historic open spaces and entry sequences. Landscape features and elements that would be enhanced include the hospital's front lawn and tree-lined entry roads and the Wyman Avenue houses' landscapes and tree plantings. Landscape treatments would also be used to provide appropriate screening from surrounding areas.

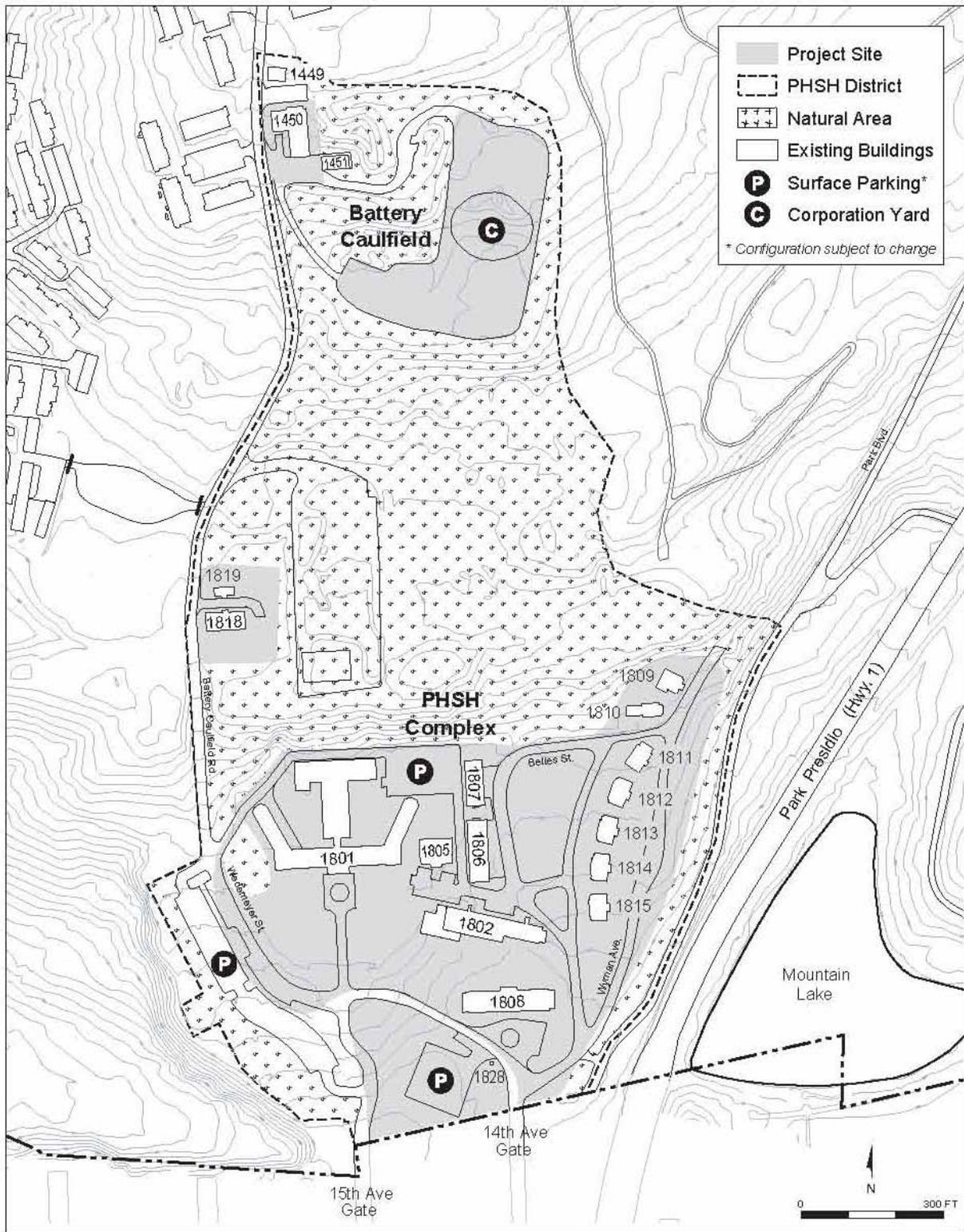


FIGURE 6. ALTERNATIVE 3: WINGS REMOVED ALTERNATIVE

Source: Presidio Trust, 2006

2.6.4 Public Amenities and Access

The alternative would include amenities such as a café and restrooms for visitors in Building 1805. Important trails that intersect in the district would be improved to connect to the network of nearby local and regional trails. These trails include the Juan Bautista de Anza National Historic Trail, the West Pacific/Mountain Lake Corridor, and the Lobos Creek Valley Trail.

2.6.5 Existing Tenants

Arion Press and Lone Mountain Children's Center would remain as existing tenants in Buildings 1802 and 1806, respectively.

2.6.6 Sustainability

The alternative would incorporate sustainable development and building practices consistent with the Trust's draft Green Building Guidelines. Examples of such measures would include energy conservation and efficiency strategies, indoor environmental and air quality management, and resource efficiency practices such as construction waste management, storm water management, and water-efficient irrigation systems.

2.6.7 Construction

The duration of the building rehabilitation phase would be approximately 17 months, possibly excluding rehabilitation of Building 1450 and other outlying buildings (which may be deferred). The number of round trips taken by trucks on the site is estimated to be about 1,580 for demolition and 540 during the course of rehabilitation. This estimate represents an average of about five truck round trips per day, although the frequency of trips may fluctuate. On-site reuse of demolition debris, which would reduce the number of truck trips during that phase, would be explored.

2.6.8 Financial Considerations

Alternative 3 is marginally financially feasible. It would cost approximately \$80.0 million, not including site improvements outside the leasehold boundary such as the landscape and parking areas west of the main hospital building and utilities leading to the site. This alternative assumes the Trust would rehabilitate Buildings 1450, 1802, 1806, 1807, 1808, 1809 to 1815, 1818, and 1819 and the private development partner(s) would rehabilitate Buildings 1801, 1803, and 1805. Total costs would be shared by the Presidio Trust (approximately \$20.0 million) and the private development partner(s) (approximately \$60.0 million).

Alternative 3 would generate a minimum of \$0.60 million in annual base rent from the development partner(s), \$1.8 million in direct rent from users, and \$0.8 million in SDC for a total \$3.2 million in

revenue to the Trust in 2010, the first “stabilized” year of project operation. Over a 70-year lease term, the alternative would generate in the area of \$575 million in total revenue to the Trust to help fund preservation and enhancement of the Presidio’s natural, cultural, scenic, and recreational resources (see Appendix A). In addition, this alternative would generate NOI to the private development partner(s) of \$2.8 million in 2010, which represents an IRR to the development partner(s) of 6.3 percent, which may not be sufficient to induce a developer to undertake this type of historic preservation project.

2.7 ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE

Alternative 4, the Battery Caulfield Alternative, would rehabilitate historic buildings within the PSHS district, and remove the non-historic wings of Building 1801 and replace them with new construction at Battery Caulfield. The alternative would include a mix of senior housing (age-restricted independent living), assisted living facilities, and conventional dwelling units on the lower plateau, and conventional dwelling units at Battery Caulfield. Rehabilitation of the historic buildings, including a portion of Building 1801, would accommodate approximately 192 units. Several non-historic buildings totaling 116,000 sf, including Building 1803 and the wings and connector in front of Building 1801, would be removed and replaced with about 73,000 sf of compatible new residential construction, including a 14,000-square-foot building (13 units) on Belles Street above the Central Green within the lower plateau, and 56,000 sf at Battery Caulfield (up to 64 units) (see Figure 7). Building area in the district would not exceed 362,000 sf.

2.7.1 Building Uses and Character

Historic buildings within the PSHS district would be retained and rehabilitated for new uses, with attention paid to preserving character-defining features. Building 1801, with 125 units, would be converted into housing for independent seniors and would include studios and one- and two-bedroom apartments equipped with small kitchens. Building 1808 would be renovated as an assisted living residence with 30 units. With the exception of Buildings 1802 and 1806, which would accommodate Arion Press and Lone Mountain Children’s Center, and Building 1819, which would be converted into an art studio for local residents, all remaining buildings in the district would accommodate residential uses. A new three-story apartment building would be built along the north edge of the Central Green on Belles Street. The massing and scale of the building would be modeled after nearby historic buildings, but it would be contemporary in design.

The existing Wyman Avenue residences would be rehabilitated consistent with their original design and character. Buildings 1809 and 1810 would be subdivided, retaining original fenestration on the exterior with alterations to the interior to accommodate the additional units.

The character of housing proposed for construction at Battery Caulfield would be distinct from that of the lower plateau. The two-story buildings would be similar in scale to the existing Wyman Avenue duplexes and designed to look like single residential structures. Housing would be clustered along a loop road that winds along the sloping site.

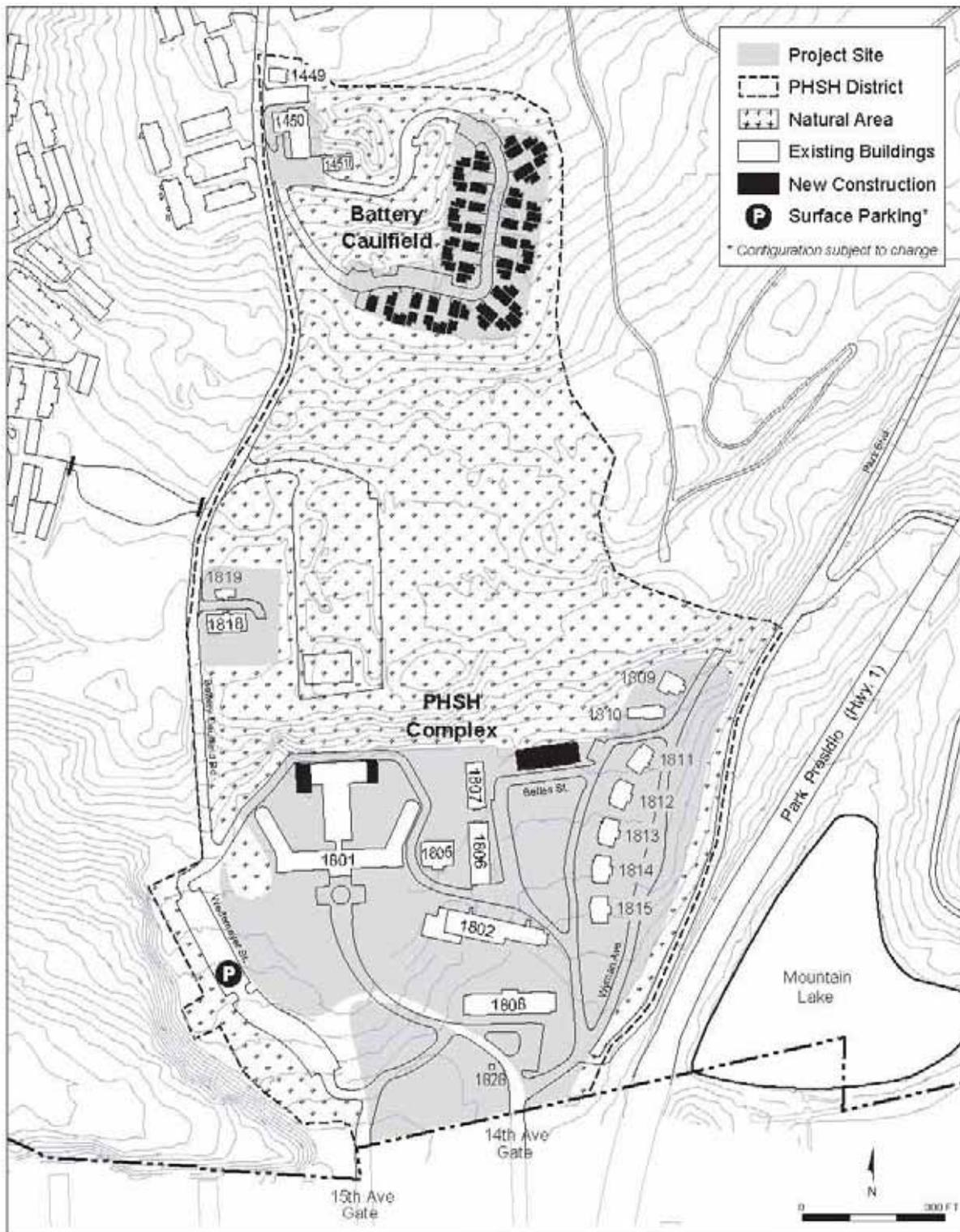


FIGURE 7. ALTERNATIVE 4: BATTERY CAULFIELD ALTERNATIVE

Source: Presidio Trust, 2006

2.7.2 Circulation and Parking

Fourteenth and 15th Avenues would operate as a one-way couplet at and north of the gates, providing access between the PHS district and the city to the south (unless the Park Presidio Boulevard Access Variant is implemented as discussed in Section 2.8 below). The 14th Avenue entrance road would be reconstructed to re-create the historic entry road alignment. Wedemeyer Street would be re-routed farther south, creating a new intersection and left turn intended to reduce cut-through traffic.

Parking would be provided in small lots convenient to building access points on the lower plateau. The large parking lot on the upper plateau would not be reused. The lot to the west of Building 1801 would be downsized following remediation activities and reconfigured to discourage cut-through traffic on Battery Caulfield Road. The parking lot adjacent to the 14th Avenue Gate would be eliminated. Parking within Battery Caulfield would be accommodated mostly in the buildings themselves. Guest parking would be provided by on-street parking spaces along the loop road leading to the buildings. Alternative 4 would include up to 267 spaces, consisting of 160 spaces on the lower plateau and 107 spaces on the upper plateau (including parking for Buildings 1818 and 1819).

2.7.3 Landscaping and Habitat Restoration

Alternative 4 would include a new landscape design compatible with the historic landscape of the district and with the VMP as amended. Major trees and significant stands that frame views and articulate open space would be retained. The lawn in front of Building 1801 would reflect the historic character of the site while accentuating a well-defined entry court. The formal front lawn would be developed with paths and trees. The historic character of the Central Green and Wyman Avenue residences would be maintained with lawns and trees. The landscape design at Battery Caulfield would incorporate native plants compatible with the surrounding natural vegetation.

Trees would be replanted near the south entrance to the project to create a buffer between the project and the adjacent residential area. Dune scrub vegetation would be restored in the area west of the reconfigured parking lot along the west side of the project. The woodland area to the east of the Wyman Avenue residences along Park Presidio Boulevard would be improved. Landscaping within the district would not include use of invasive non-native species that could compete with sensitive plant species on the upper plateau.

2.7.4 Public Amenities and Access

The alternative would include a recreation center and district- and neighborhood-serving retail spaces in Building 1805, including a small convenience store, a coffee shop, and a pick-up/drop-off dry cleaning counter. The recreation center would provide wellness programs for seniors and residents of the surrounding community. The alternative also assumes key trail extensions to segments of the Juan Bautista de Anza National Historic Trail, the West Pacific/Mountain Lake Corridor, and the Lobos Creek

Valley Trail that would connect with the existing regional network and other key features of the Presidio in accordance with the Presidio Trails and Bikeways Master Plan.

2.7.5 Existing Tenants

Arion Press and Lone Mountain Children's Center would be retained as tenants in Buildings 1802 and 1806, respectively. The non-historic addition on Building 1802 may be either removed or rehabilitated for additional space.

2.7.6 Existing Battery Caulfield Uses

The Trust's building and landscaping materials at the Battery Caulfield maintenance/corporation yard would be consolidated and moved to Battery Dynamite in the Fort Scott area. NPS use of the yard for equipment and materials would be eliminated.

2.7.7 Sustainability

The alternative would incorporate sustainable development and building practices. The "green building" measures would be consistent with the Trust's draft Green Building Guidelines and would qualify for a LEED rating. Examples of such measures would include energy conservation and efficiency strategies, indoor environmental and air quality management, and resource efficiency practices such as construction waste management, storm water management, and water-efficient irrigation systems.

2.7.8 Construction

The duration of the construction phase would be about 20 months. The number of round trip truck trips on the site is estimated to be approximately 2,200 during the course of construction, with an average of about five truck round trips per day for the 20-month duration. The frequency of trips would fluctuate, with the most trips (up to 20 truck round trips per day) occurring during demolition and excavation. Trips are expected to decrease during concrete construction and decrease more during construction of the interiors. Reuse of demolition debris on-site, which would reduce the number of truck trips during that phase, would be explored.

2.7.9 Financial Considerations

Alternative 4 is financially feasible. It would cost approximately \$100.2 million, not including site improvements outside the leasehold boundary such as the landscape and parking areas west of the main hospital building and utilities leading to the site. This alternative assumes the Trust would rehabilitate Buildings 1450, 1802, 1806, 1807, 1809 to 1815, 1818, and 1819 and the private development partner(s) would rehabilitate Buildings 1801, 1803, 1805, and 1808. Unlike in the other alternatives, in this alternative it is assumed that Building 1808 is leased to the private development partner(s) for reuse as 30

senior housing units. This assumption is made because it would be unreasonable for a development partner to operate 125 units in Building 1801 and for the Trust to separately operate 30 senior housing units in Building 1808. With one party (the private development partner) operating both buildings, there are greater economies of scale, both in development and operation. Total costs would be shared by the Trust (approximately \$14.6 million) and the private development partner(s) (approximately \$85.6 million).

Alternative 4 would generate a minimum of \$0.67 million in annual base rent from the private development partner(s), \$1.3 million in direct rent from users, and \$1.0 million in SDC for a total \$3.0 million in revenue to the Trust in 2010, the first “stabilized” year of project operation. Over a 70-year lease term, the alternative would generate in the area of \$514 million in total revenue to the Trust to help fund preservation and enhancement of the Presidio’s natural, cultural, scenic, and recreational resources (see Appendix A). In addition, this alternative could generate NOI to the private development partner(s) of \$6.1 million in 2010, which represents an IRR to the development partner(s) of 10.2 percent, which should be sufficient to induce a developer to undertake this type of historic preservation project.

2.8 PARK PRESIDIO BOULEVARD ACCESS VARIANT

Under Alternatives 1, 2, 3, and 4, vehicular access to the site could be altered with approval and construction of a new intersection on Park Presidio Boulevard (Highway 1). Because this intersection would require approval by Caltrans, which has yet not been secured, the intersection is described and evaluated in this EIS as a “variant” that could be combined with any alternative except the Requested No Action Alternative.

The Park Presidio Boulevard Access Variant would construct a new signalized intersection approximately 400 feet north of the current intersection of Lake Street and Park Presidio Boulevard (see Figure 8) and would make operational changes to 14th and 15th Avenues. Internal Presidio roadways (e.g., Wyman Avenue, Brown Street) would be reconfigured in the immediate vicinity to accommodate these changes.

The new intersection would allow traffic traveling southbound on Park Presidio Boulevard to enter the PHS site directly via a right turn, and would provide virtually all traffic exiting the PHS site with direct access to northbound or southbound Park Presidio Boulevard.¹³ Rather than operating as they do today, or as a one-way couplet as proposed in the PTMP and Alternative 1, the 14th and 15th Avenue Gates would both allow inbound (northbound) Presidio access only.

Installation of the described traffic signal would not require widening of Park Presidio Boulevard but would require reconfiguration of traffic lanes in two ways. First, in the northbound direction, the existing three-lane configuration north of Lake Street would be extended about 350 feet and through the new

¹³ While Wedemeyer Street and Battery Caulfield Road would still permit some traffic exiting the project site to travel north through the Presidio, changes to the configuration of these roads at the site are proposed to slow traffic and discourage their use by motorists traveling to the Golden Gate Bridge.

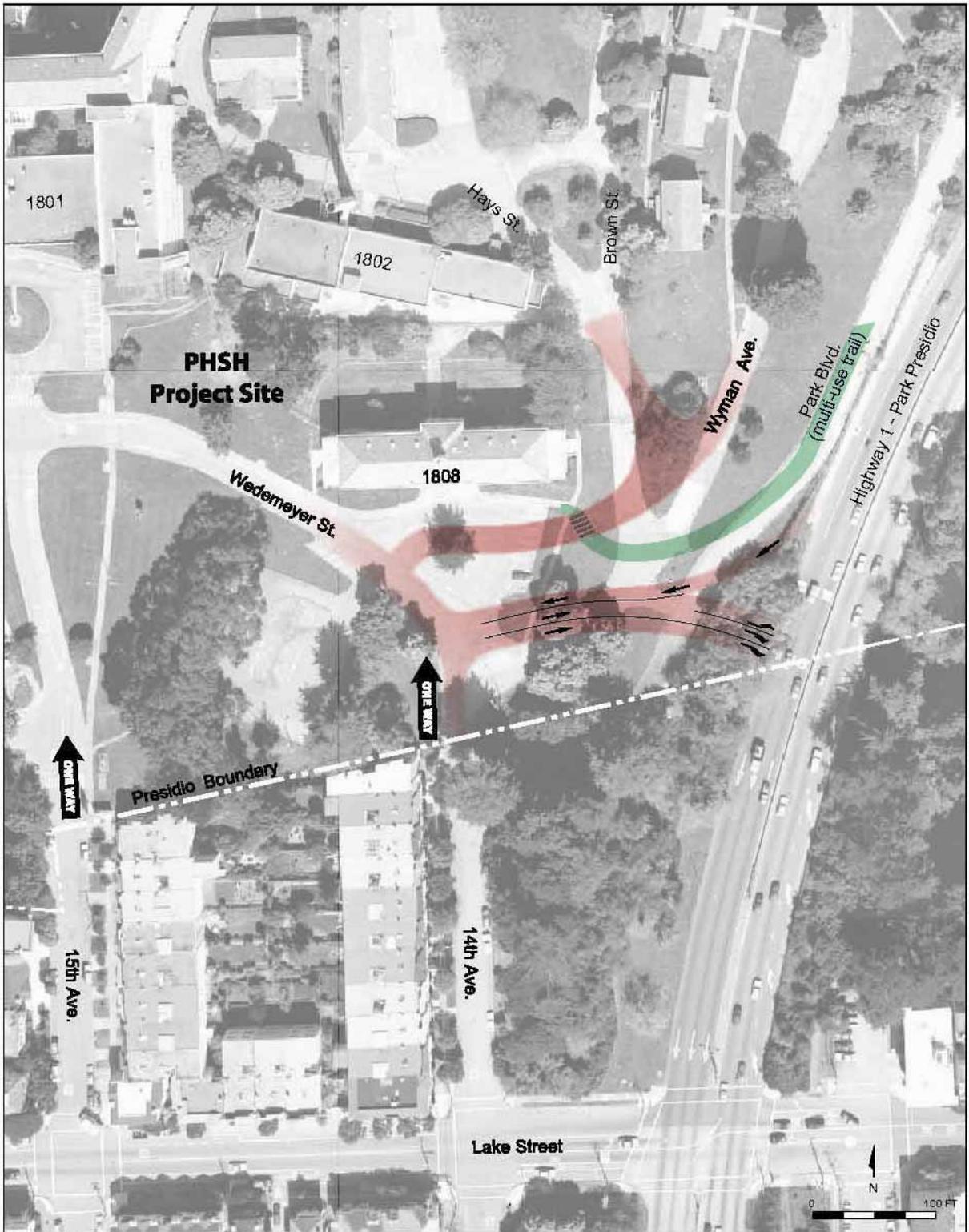


FIGURE 8. PARK PRESIDIO ACCESS VARIANT

Source: Presidio Trust, 2006

intersection, so that traffic in the right-hand lane would have a total of about 600 feet before merging left. Second, in the southbound direction, the three-lane configuration that currently begins about 200 feet before Lake Street would begin about 400 feet earlier, and before the new intersection. These changes in lane configuration would effectively extend existing non-standard highway conditions, wherein traffic uses the full width of the roadway without provision of standard shoulders. Sign and lighting changes on the highway and within the Presidio would be required. In addition, some grading would be required within the Presidio, and the retaining wall on the west side of Park Presidio Boulevard could require modification.

No pedestrian or bicycle use would be permitted at the new intersection. Pedestrians and bicyclists would continue to be accommodated via the exclusive multi-use trail that connects the PHSB district to Mountain Lake Park under Highway 1, or at Lake Street (San Francisco Bicycle Route No. 10). The new intersection would act as a transition point between the free-flow conditions of Highway 1 and the signalized Park Presidio Boulevard. In providing this transition point, the new intersection could improve pedestrian and bicycle safety at Lake Street because traffic would be slowed by the new traffic signal before it reached the bike lanes along Lake Street or the Park Presidio crosswalk.

The cost of the Park Presidio Boulevard Access Variant has been preliminarily estimated at approximately \$1.6 million (in 2004 dollars), and could be shared by the Trust and its private development partner(s). Further discussion of operational issues associated with this variant is included in Section 3.2, Transportation, of this document.

2.9 OTHER ALTERNATIVES

A number of other alternatives for the PHSB district have been suggested, previously considered, and rejected since the hospital closed in 1981, and a number of additional alternatives were requested by the public during the review and scoping periods for the PHSB EA and the Draft SEIS. The following section summarizes these other alternatives. In each case, the text indicates whether the alternative has been eliminated from detailed examination, and if so why. Where requested alternatives are being considered, the text explains how they fall within the range of alternatives reviewed in this Final SEIS.

2.9.1 Alternatives Suggested Pre-1989

In 1988, a year before the decision was made to close the Presidio as an Army post but seven years after the Public Health Service vacated the site, the City and County of San Francisco (CCSF) received a ten-year lease option on the PHSB property from the U.S. Army. At that time, a study was prepared for the CCSF to determine the feasibility of converting the PHSB into a long-term treatment facility for AIDS patients. The result of the study was the "Reactivation Plan" submitted in 1990 (Fong & Chan Architects).

Ultimately, the CCSF declined to exercise its lease option for the PHSB, presumably because the Reactivation Plan concluded that the costs of seismic upgrade of the facility for acute health care would

be substantial, making the economics of reuse for this purpose infeasible. More recent suggestions that the PHSB buildings be used for medical purposes have been rejected for similar reasons. In addition, medical use is inconsistent with land uses included in both the 1994 NPS management plan for the Presidio and the subsequent PTMP adopted in 2002. The medical reuse alternative is not considered further in this SEIS.

2.9.2 1994 GMPA FEIS Alternatives

Following the base closure announcement in 1989, the NPS considered four alternatives for the Presidio, including a number of options for the PHSB district, as part of the GMPA EIS. Under two GMPA EIS alternatives (Alternatives B and C), the PHSB would have been turned over to the federal General Services Administration (GSA) for disposal as surplus property. No site improvements would have been made prior to disposal, but new private development would have been allowed if compatible with the historic setting and structures.

In 1994, the NPS rejected these proposals to sever the PHSB site and sell off the land. The same proposals today would be inconsistent with the Presidio Trust Act because the Trust cannot sell property transferred to it and is obligated to protect the integrity of the NHLD.

Under the adopted NPS plan (Alternative A) and one other alternative (Alternative D) considered in the GMPA EIS, the PHSB district was to be rehabilitated as an education and conference center and might have served as an international school or a youth job training center. Under the GMPA, the 1950s wings of the main hospital building were to be removed, and under Alternative D they would have been retained. Non-historic buildings totaling 4,500 sf would have been removed, and new construction of up to 20,000 sf would have been permitted. Under the adopted plan, “if a suitable tenant could not be found for the hospital, the building would be removed and the site returned to open space.” Residences on Wyman Avenue and dormitories such as Building 1808 would have been used to support educational and conferencing activities. Natural areas and water resources would have been protected. The planning approach in the GMPA was later modified in the PTMP to allow more leasing flexibility and because public comment favored a predominantly residential approach to the site. The GMPA alternatives are not being considered further.

2.9.3 PTMP EIS Alternatives

The PTMP EIS included seven alternatives for Area B of the Presidio, including the adopted GMPA and the adopted PTMP. In these alternatives, the Trust considered and analyzed various treatments of the PHSB district. As described above, the GMPA called for removing the non-historic wings and reusing the remainder of the site for educational and/or conferencing activities, with limited, supporting residential use and up to 20,000 sf of new construction. Under this alternative, the district would have included about 290,000 sf of built space. Another alternative (Final Plan Variant) considered the same scenario without the possibility of new construction, for a total of 270,000 sf of built space in the district. The Resource Consolidation Alternative considered removing all buildings within the district and

returning the entire area to open space. A third alternative (Sustainable Community) envisioned mostly residential use and possibly a small increment (10,000 sf) of additional building area. A fourth alternative (Cultural Destination) contemplated a residential campus with cultural and educational uses within 400,000 sf of built space. The last alternative (Minimum Management) considered a mix of office, institutional, and residential uses in the existing buildings (400,000 sf).

The Final Plan Alternative in the PTMP EIS assumed 400,000 sf of developed space in the PHSH district, consisting of 190,000 sf of educational space, 200,000 sf of residential space, and 10,000 sf of lodging/conference space. The PTMP provided the flexibility to consider up to a maximum of 400,000 sf in residential and educational use at unspecified intensities, as long as the mix resulted in no environmental consequences beyond those identified in the PTMP EIS. The PTMP ROD notably rejected the Resource Consolidation Alternative in part because it proposed demolition of all buildings in the PHSH district, thus impairing the integrity of the NHLD. Instead, the ROD selected an alternative with a mix of residential and educational uses and called for residential use of the main hospital building. In doing so, the adopted PTMP implicitly rejected other planning approaches that envisioned intensive use of the site for office, conferencing, or primarily educational uses. The Final Plan Alternative from the PTMP EIS is evaluated in this Final SEIS as Alternative 1, the PTMP Alternative.

2.9.4 Reuse as a Hospital

Under State law, San Francisco's hospitals have limited time to upgrade their facilities to meet stringent seismic safety standards. As a result, those who operate the hospitals, including the California Pacific Medical Center, the University of California at San Francisco (UCSF), and San Francisco General Hospital, have been charged with identifying potential replacement sites for some or all of their facilities. The PHSH site is occasionally mentioned or considered as one such potential site. The Presidio Trust has eliminated this option from consideration because earlier consideration of this option determined the economics of this land use to be infeasible. It is also being eliminated from further review because the potential scale of a medical facility would likely cause intensive traffic and other environmental impacts, and because it is inconsistent with the PTMP, the adopted management plan for the area.

2.9.5 Demolition of Building 1801

Although the PTMP allows the Trust to consider removal of the PHSH if reuse is found to be infeasible, this suggestion is not currently being considered. In fact, within the Request for Qualifications (RFQ) and Request for Proposal (RFP) prepared for the PHSH in early 2003, the Trust *required* preservation of historic portions of Building 1801. By requiring building rehabilitation and reuse, the Trust believes it is fulfilling its obligation to preserve the cultural and historic integrity of the NHLD. Offering the property for lease is a reasonable way to determine whether retention and rehabilitation of the hospital building is feasible, even though some potential developers declined to submit qualifications due to their difficulty in meeting this requirement. If the Trust were to find reuse of the hospital infeasible at a later date, it could consider demolition and replacement construction, which would likely result in a greater financial return than the reuse alternatives.

2.9.6 No Development at Battery Caulfield/“District Plan” for the PHS District

A number of commenters advocated removing the Battery Caulfield site from consideration for development and restoring the site as a natural area. They believed that the environmental impact of construction at Battery Caulfield would be so significant that additional analysis and review would need to be undertaken. Other commenters suggested that the Trust should undertake a plan for the entire PHS district that included the ultimate reuse of Battery Caulfield as open space.

Battery Caulfield is identified in the PTMP as a previously disturbed site (developed by the U.S. Army as the site of underground missile silos), and the possibility of future development at Battery Caulfield was left open in the PTMP subject to later, more detailed analysis. The option of no new development at Battery Caulfield continues to be considered as part of the Requested No Action Alternative, as well as Alternatives 1, 2, and 3 within this SEIS. Under each of these alternatives, the site would remain in its current use as a maintenance/corporation yard for the present but could be converted to open space (natural area or recreational area) under a separate project sometime in the future.

The potential conversion to open space is not part of the current project because there is no current funding source for planning or implementation of open space improvements at Battery Caulfield and the type and configuration of open space that is desirable (i.e., active recreation and/or native plant restoration) have not been determined. The scope of the actions for decision under this SEIS are the extent and configuration of building development and associated landscape changes within the project site. This SEIS will not be used to make all future resource management or open space decisions for the entire PHS district. In addition, the Trust cannot incur the costs and planning associated with relocation of Trust maintenance yard functions in the near term unless a third party provided the investment revenue for changes to the area, as with Alternative 4. The construction at Battery Caulfield assessed as part of Alternative 4 within this SEIS has not been shown to result in new adverse impacts warranting additional environmental analysis, although conformance with extensive and potentially costly mitigation measures would be required.

2.9.7 Minimal Development on Lower Plateau

A number of commenters requested a “variant” of Alternative 3 allowing a limited amount of new construction on the lower plateau (e.g., up to 25,000 sf). They suggested that this variant should be considered in the event that a development team can show that a particular construction project, such as an addition to the back of Building 1801 or a low building east of the building, would enhance the revitalization of the district. The variant would consist of removal of the non-historic wings, no construction at Battery Caulfield, and up to 25,000 sf of new construction, for a total of up to 300,000 sf of development overall within the district.

The proposed Alternative 3 variant with demolition of the non-historic wings and limited replacement construction on the lower plateau is encompassed within and being analyzed as part of the existing range of alternatives included in this SEIS. Thus, the variant requested can be fully considered as among the

alternatives available for selection on the basis of the current SEIS, and its impacts would fall between those associated with Alternatives 2 and 3.

2.9.8 Professional Office Complex or Commercial Retail Center

During scoping for the EA, one individual requested consideration of the rehabilitation of some or all of the buildings at the PHS site for development as an office complex for small businesses or a “shopping mall.” These suggested alternatives are inconsistent with the land uses designated for the site in the PTMP, the adopted management plan for the district, and would generate substantially more traffic and parking demand than other alternatives being considered. For both reasons, the proposed alternative has not been analyzed in detail.

2.9.9 Supportive Housing, 100-Percent Affordable Housing, or other “Community Service” Use

During scoping for the EA and the Draft SEIS, a couple of individuals suggested that the PHS should be used for “community service” instead of conventional residential use. One individual specified that the complex should be rented to the CCSF or other public or private entity for use as “supportive housing for homeless singles, single-parent and other homeless families, etc. whose lives can be expected to benefit curatively from onsite medical, psychiatric and social services.” This suggestion is similar to a reuse alternative considered and rejected more than a decade ago because of financial infeasibility (see discussion in Section 2.9.1, Alternatives Suggested Pre-1989). As a result, the alternative has not been carried forward for detailed analysis in this SEIS.

2.9.10 210 Dwelling Units with the Trust as Developer

Some commenters suggested that the Trust itself undertake rehabilitation of buildings in the PHS district and then lease the buildings directly without involvement by a private development partner. The commenters claimed that this strategy would allow the Trust to remove the non-historic wings of Building 1801, achieve the 210 dwelling units anticipated in the PTMP, and also achieve a greater revenue stream than if a private development partner were involved.

An alternative with 210 dwelling units (Alternative 1) is included in this SEIS, together with an alternative that would remove the non-historic wings of Building 1801 and not replace them (Alternative 3), and an alternative with substantially less overall activity (Requested No Action Alternative). Thus, the potential physical impacts of the suggested alternative fall within the range presented in this SEIS, and this alternative could be considered for implementation by the Trust. In addition, the Trust will invest capital in many of the buildings within the district in order to enhance revenues generated for the Presidio. As explained in the PTMP (page 121), the Trust will combine and balance the strategies of Trust and third-party investment over time.

The Trust does not believe, however, that implementation of any of the alternatives, with the exception of the Requested No Action Alternative, would be feasible without some participation by a private

development partner(s). This is because, without a private development partner(s), implementation of Alternative 1, 2, 3, or 4 would require the Trust to invest between \$80 and \$122 million up front before any revenue stream could be realized. The Trust would not have the required capital dollars available for this investment in the near term without borrowing from the U.S. Treasury and increasing the long-term operating costs of the Presidio (costs associated with payment of interest and principal). In addition, the cost of funds available to the Presidio Trust at the 30-year U.S. Treasury rate currently exceeds the cost of funds available to a private development partner using tax allocation bond financing. An additional factor is that historic preservation tax credits would not be available to the Trust. These factors suggest that, on balance, the overall financial profile of the project would be better with a development structure that includes some private development partner participation. The level of that participation would be the subject of lease negotiation with the private development partner(s), regardless of which alternative is selected.

2.9.11 One-Hundred-Percent Senior Housing Alternative

A number of scoping commenters suggested that the Trust pursue a project consisting entirely of senior housing and/or assisted living because these uses would result in the fewest transportation impacts. Senior housing (age-restricted independent living and assisted living) has been incorporated within the range of alternatives and is being evaluated as part of Alternative 4. In addition Section 3.2, Transportation, describes the differences in traffic and parking demand from senior housing and other housing.

2.9.12 Offices for USPP, FBI, IRS, or Secret Service/Department of Labor Job Training Center

The suggestions to rehabilitate the PHSB for government office and training space were made by separate individuals. The proposed reuse alternatives have been eliminated from further analysis due to inconsistencies with the PTMP, and because it is highly unlikely that the federal government would have the large sums required for the needed capital improvements to the district's historic buildings. Without tenant financing of the needed improvements, the Trust would need to act as the developer, an option that is not being pursued for the reasons stated above.

2.10 PREFERRED ALTERNATIVE

Based on the information and analysis to date in the EA and in this SEIS, Alternative 2 as revised is the Trust's Preferred Alternative. Identification of a preferred alternative does not indicate a final decision or commitment to approve or execute a project identical to that alternative. While NEPA analysis is ongoing, no final approvals may be granted and no development agreement or lease may be signed. The project ultimately selected for implementation may combine various elements of the alternatives or may fall within the range they represent.

Alternative 2 has been identified as the Trust's Preferred Alternative at this stage of the process because it would meet the project's purpose and need and best balances the Trust's objectives while minimizing or avoiding adverse environmental impacts. While certain of the other alternatives may have less overall impact, the benefits of Alternative 2 surpass the benefit of the other alternatives, and its impacts would be less than significant. Alternative 2 provides this balance in part by offering a relatively low number of dwelling units while providing a variety of financial benefits (i.e., overall return and capacity to ameliorate the short- and long-term financial risks of the project) without unduly affecting park resources or the adjacent community.

Under any alternative, there would inevitably be a change in activity level at and near the project site as compared to the last 25 years of building vacancy. Also, under Alternatives 1, 2, 3, and 4, there would be a noticeable change in activity level when compared to the Requested No Action Alternative. Nevertheless, across the spectrum of impact topics, the increase in activity level and degree of environmental impact would not rise to a level of environmental significance under any of the alternatives considered in this SEIS if identified mitigation measures are implemented. Thus, the Trust believes it is prudent to favor the alternative that is financially beneficial while meeting the project purpose and need and also minimizing high-intensity non-residential land uses in the district (unlike Alternative 1) and land use changes at Battery Caulfield (unlike Alternative 4).

2.10.1 Financial Considerations

The PHS district is one of few significant opportunities at the Presidio to convert non-residential space to residential use and thus one of few remaining opportunities of this scale to generate a substantial and stable revenue stream to support operation and enhancement of the Presidio. This is due to the size and configuration of buildings within the district when compared to other areas of the Presidio such as Fort Scott and the Main Post.

Alternative 2 appears to address the Trust's financial objectives better than other alternatives would because it could generate a substantial amount of revenue and have a small risk of financial failure. Based on the financial analysis of the SEIS alternatives, Alternative 2 could generate about \$658 million in lease revenue over a 70-year lease term, more than Alternative 3 (\$575 million) and Alternative 4 (\$486 million), and the same as Alternative 1 (\$658 million). The Requested No Action Alternative would gross an estimated \$241 million over 70 years (see Appendix A).

Alternative 2 would also pose less financial risk to the Trust, compared to other alternatives. Based on the analysis conducted, the leveraged internal rate of return with Alternative 2 would be incrementally below the 15 percent that is typically required by developers of multi-family rental housing projects in San Francisco. This rate of return would be still less with Alternative 3, as there would be no margin (no "breathing room") if construction costs were higher than anticipated, or if rents were lower. Risks associated with Alternative 1 relate to the large amount of educational space that would be available in multiple buildings and the resulting mix of uses (education and residential) in Building 1801. Educational space configured in this way might not be attractive to a single institutional user who could

pay market rents, and multiple land uses in a single building might result in land use conflicts affecting residential occupancy – for example, if residents were disturbed by students arriving early in the morning. Risks associated with Alternative 4 relate to the senior housing/assisted living component and its likely desirability when compared to competing locations closer to medical facilities, more varied and frequent transit services, and neighborhood-serving retail. Also, the success of any project depends on the availability of investment capital and the willingness of lenders to lend. Financing for affordable housing, typically available for residential development, would not be available in Alternative 4 with its age-restricted units, whereas it could be available for the other alternatives with 20-percent affordable units. Thus, achieving financial success with a senior housing development is more difficult.

2.10.2 Other Objectives and Environmental Issues

Like Alternatives 1, 3, and 4, Alternative 2 would improve the existing, dilapidated and unsightly appearance of the PHSB district, remove chain link fencing around the main hospital, increase public access, and adaptively reuse historic buildings. Rehabilitating and occupying currently vacant buildings would improve health and safety in the area by reducing the incidence of vandalism and the risk of a structural fire set by unauthorized building occupants.

Alternatives 1, 2, 3, and 4 would all address the other leasing objectives identified by the Trust. Based on the information and analysis available to date, however, the Trust believes that Alternative 2, including the retention of the non-historic wings, the associated opportunity for additional housing supply, and the greater capacity for financial return and risk mitigation, would best balance the Trust’s objectives while minimizing or avoiding adverse environmental impacts. Non-financial objectives and environmental issues are discussed further below.

Traffic and Parking Demand – The increase in traffic and parking demand associated with all alternatives would be a noticeable change compared to what has existed for 25 years, and compared to the future “no action” condition reflected in the Requested No Action Alternative. In relative terms, Alternative 2 would result in more daily and peak hour vehicle trips than Alternatives 3 or 4, and less than Alternative 1. Alternative 2 would also result in higher parking demand than Alternatives 3 or 4, and less than Alternative 1. However, due to the proposed construction of an underground parking garage, it would actually have lower total parking demand that would be met with surface parking than any of the action alternatives.

The SEIS analysis shows that the expected increase in traffic and parking demand under all alternatives would not be of a magnitude that would result in a significant deterioration of environmental conditions beyond what is expected as a result of background growth in the region. The SEIS analysis demonstrates that all study intersections would operate at the same level of service (LOS) under Alternative 2 compared to Alternatives 3 or 4 (with one exception at the Lake Street/Park Presidio Boulevard intersection with the variant in the AM peak hour compared to Alternative 4) and the same or better levels of service compared to Alternative 1. None of the alternatives would noticeably increase anticipated traffic congestion or decrease traffic safety over the Requested No Action Alternative, given the roadway capacity and density

in the surrounding area. Also, each of the alternatives would provide parking supply sufficient to meet demand, and each would limit parking demand by requiring aggressive transportation demand management measures.

Historic Resources – Like the other alternatives except for the Requested No Action Alternative, Alternative 2 would include preservation and rehabilitation of historic buildings within the PHSB district and would avoid new construction or other changes within the district that deviate from adopted and proposed planning and design guidelines intended to ensure compatibility with the NHLD. Indeed, the primary differences among the alternatives relate to the use and disposition of non-historic buildings and building additions. Alternative 2 would remove some but not all non-historic buildings and additions.

Natural Resources – Alternative 2 could have greater indirect impacts on natural resources near the site than the Requested No Action Alternative or Alternative 3, which has less building space and fewer residents. Alternative 2 would introduce fewer people to the site than Alternative 1, however, and would not include housing construction at Battery Caulfield, which would require extensive and costly mitigation related to hydrology and biology as in Alternative 4. Alternative 2 and all other alternatives would incorporate all mitigation measures necessary to avoid or minimize any adverse natural resources impacts.

Revitalization and Reuse – Like the other alternatives, Alternative 2 would include land uses that would be consistent with the PTMP, improve the overall appearance of the area, and preserve public access to open space.

Design Quality and Environmental Sustainability – All alternatives except the Requested No Action Alternative assume the opportunity for addressing design quality through building rehabilitation and other site planning and landscaping activities. Alternatives 1, 2, 3, and 4 would contribute dwelling units toward the Presidio's jobs/housing balance. Alternatives 1 and 4 would be more consistent with sustainability principles than the other alternatives in that they would result in less demolition and more reuse of existing buildings.

Other Environmental Issues – Other environmental topics addressed in this SEIS include land use, housing and schools, archaeological resources, air quality, noise, visual resources, visitor use, utilities and services, geology and soils, hydrology, wetlands, and water quality. While impacts and benefits would vary to some degree by alternative for each topic, the analysis establishes that Alternative 2 would avoid or minimize any adverse environmental impacts.

3 Affected Environment and Environmental Consequences

3.1 Land Use, Housing, and Schools

3.1.1 AFFECTED ENVIRONMENT

Land use and socioeconomic (housing and school enrollment) characteristics of the Presidio and surrounding neighborhoods are described on pages 131 to 157 and pages 161 to 166 of the PTMP EIS. This description is incorporated here by reference, and portions relevant to the PHSB district are summarized below and expanded upon as necessary.

3.1.1.1 Existing Land Uses at the PHSB District and in Surrounding Areas

The PHSB district lies entirely within the Presidio of San Francisco, a national park site within the GGNRA. The PHSB district is divided between the lower plateau to the south, which contains the majority of the district's buildings including the PHSB and supporting structures, and the upper plateau to the north, which contains significant natural areas, several historic buildings, and paved areas such as the former Nike Missile Site at Battery Caulfield.

Before 1980, the PHSB was a full-service medical facility, providing acute medical and surgical services as well as dental services to patients and employing people who lived at or and commuted to the site. The PHSB also provided the following programs: alcoholism program, cobalt therapy, diabetes program, family planning, geriatric day treatment center, geriatric screening, health education, mental health clinics, nutrition program, optometry services, psychiatric day hospital services, and speech therapy. The PHSB had an operating bed capacity of 260 and employed the second largest number of staff (810) of any Public Health Service hospital (Bailey et. al. 1981). Accessory uses included housing, research laboratories, gardens and recreational uses, a steam generation facility, and a laundry. There were an estimated 12 dwelling units and 86 dormitory rooms available to hospital staff within the complex. After reverting to the U.S. Army, the PHSB complex was used for a time as a satellite branch of the Army's Defense Language Institute.

Today, most of the buildings in the PHSB district are vacant. Existing building uses include the following:

- Building 1802 contains Arion Press, a cultural/educational use that includes typeface and book production and printing activities.
- The bottom half of Building 1806 contains Lone Mountain Children's Center, an educational use.
- The top half of Building 1806 was rehabilitated for short-term office use and is now partially used for offices and partially vacant.

- Buildings 1803, 1805, and 1808 were rehabilitated for short-term use by the Jewish Community Center, a cultural/educational use, and are now vacant.
- Building 1450 and 1451 have recently been or are currently occupied by Trust maintenance activities.

The Trust and NPS also use paved areas within the PHSB district for maintenance activities as follows:

- An area immediately behind Building 1801 is used as a waste transfer station where waste collected from containers throughout the park is consolidated within dumpsters for removal off-site.
- The parking area at the southern end of the upper plateau is currently used to manufacture compost from green waste collected throughout the park.
- The paved area at Battery Caulfield is used as a maintenance yard, with heavy equipment and materials storage by the NPS (lower portion) and materials storage by the Trust (upper portion).

Other land uses within the PHSB district include surface parking, natural areas, and recreational trails. A tennis court located behind the PHSB is currently closed. Surrounding land uses include natural areas (Lobos Valley and Lobos Creek) to the west, the Presidio Golf Course and a regional transportation facility (Park Presidio Boulevard/Highway 1) to the east, residential neighborhoods of the Presidio to the north and northwest, and residential neighborhoods of the city to the south. Mountain Lake lies to the east of the PHSB district, across Highway 1 from the district, and is bordered on its south by parkland under the jurisdiction of the City and County of San Francisco (CCSF) Recreation and Park Department.

3.1.1.2 Projected Future Land Uses

The PTMP (page 93) calls for revitalization of the PHSB district as a residential and educational community and identifies these as preferred uses for buildings in the district. Specifically, the PTMP (page 94) identifies residential use as the preferred use for the PHSB (or Building 1801), sets a district goal of 200 to 210 dwelling units (page 45), and also identifies the potential for up to 190,000 square feet (sf) of educational uses (page 37).

There is an inherent contradiction in these PTMP statements, since the district contains only about 100,000 sf of building space outside Building 1801 and thus cannot accommodate 190,000 sf of educational space *and* devote Building 1801 to residential use in light of the maximum permitted building area of 400,000 sf under the PTMP. In recognition of this contradiction, the Record of Decision (ROD) (Trust 2003c) adopted by the Trust Board of Directors in August 2002 reiterates “the Trust’s preference for residential use of the PHSB building” and notes the potential educational use of auxiliary structures.¹⁴

The PTMP (page 95) also envisions compatible outdoor recreational uses in the PHSB district, reduced parking (page 51), and enhanced natural areas (page 95). The Nike Missile Site at Battery Caulfield is

¹⁴ ROD, Attachment 3, page 2. Also see PTMP EIS Volume II, page 4-194, which describes the land use preference for the PHSB and notes “the actual number of units that could be provided will take further site-specific analysis, including a detailed assessment of the historic building and rehabilitation requirements.”

identified as a “generalized area of development” (page 94) with no specific land use preference.¹⁵ However, the PTMP encourages maintaining the historic concentration of development on the lower plateau and enhancing open space on the upper plateau (page 94).

3.1.1.3 Existing Presidio Housing Supply and Occupancy

There are no residential tenants in the PSHH district today, although historically some hospital personnel lived on-site, occupying single-family homes, duplexes, and larger dormitory buildings. The PSHH district contains a total of 12 vacant dwelling units and 86 vacant dormitory-type accommodations in Buildings 1808 through 1815.

The Presidio as a whole contains a total of 1,116 conventional dwelling units and an estimated 538 dormitory-style or single-resident-occupied (SRO) accommodations. Of this total supply, approximately 1,030 conventional units have been rehabilitated and are being leased, mostly on a year-to-year basis. Additional units are in the process of being rehabilitated. About 60 SRO or dormitory-style accommodations are currently in use or are intermittently occupied. Currently, approximately 2,675 people reside at the Presidio.

Of the occupied units at the Presidio, an estimated 20 percent are currently leased to employees or volunteers who work at the Presidio, whether for the Trust, the NPS, or one of the many non-residential tenants that lease space. Some of the Presidio-based employees participate in a “preferred renter” program, which currently makes about 60 units available to households with annual combined household incomes of up to 100 percent of the area median at rents equal to 30 percent of income. Current programs accommodate other employees with lower incomes, as well as Presidio public safety personnel and “on call” employees of the Trust.

3.1.1.4 Housing Policies and Projected Future Demand for Housing

With adoption of the PTMP, the Trust established housing policies giving preference to Presidio-based employees and accommodating a diverse tenant mix through housing affordability programs. Although many residences in the park are currently leased to the general public, the PTMP anticipates that Presidio-based employees and their families will eventually occupy a significant portion of Presidio housing. This estimate was based on an assessment of existing and future employment and a 1999-2001 survey of employee housing demand (see Table 5).

As stated in the PTMP and PTMP EIS, the Trust expects housing demand by Presidio-based employees to increase as employment increases and as unit diversity (i.e., the number of smaller units) increases. The Trust has agreed to monitor employee housing demand over time as employment and unit diversity at the Presidio increase.

¹⁵ Elsewhere in the PTMP (pages viii and 16), Battery Caulfield is identified as within the native plant zone established by the Presidio VMP, which was adopted by the NPS and the Trust in 2001. This designation was superseded with adoption of the PTMP as described and analyzed in the PTMP Final EIS (Volume I, page 223).

Table 5. Existing and Projected Employee Housing Demand at the Presidio

	2002-2003	PTMP 2020
Presidio-Based Employees (PBE)	2,250 employees	6,886 employees
Total PBE Housing Demand ^a	1,440 units	4,406 units
Occupancy / Demand for Presidio Housing by PBE ^b	180 units	1,486 units

Source: PTMP EIS 2002 and Trust 2006 residency data.

Notes:

^a Total PBE Housing Demand = number of PBEs ÷ 1.563 employed residents per household

^b 2020 demand assumes 1.25 PBEs per household.

The PTMP establishes a maximum housing supply of 1,400 to 1,654 residences park-wide, despite fluctuations expected as a result of housing removal and other activities. The PTMP EIS projects that the PTMP would result in approximately 1,295 conventional dwelling units and 352 dormitory-style units in the year 2020 after planned housing removal and replacement. A goal of 200 to 210 overall units was established for the PHS district.

The conversion of non-residential buildings to residential use was identified as an important strategy for replacing housing that will be removed over time to achieve natural resources goals of the PTMP. This type of conversion was also identified as an historic preservation strategy:

Rehabilitating and converting historic non-residential buildings to residential use may prove to be an excellent historic preservation strategy regardless of the demand for housing by Presidio-based employees. For example, residential use may be the best way to ensure that historic portions of the Public Health Service Hospital are sensitively rehabilitated. For that reason, senior housing or other residential uses are preferred for the hospital building. (PTMP, page 43)

3.1.1.5 Existing and Projected Future School Enrollment

In 2000, there were 128 school-age children residing at the Presidio, of whom 107 were enrolled in San Francisco Unified School District (SFUSD) schools that serve the area. Because the Presidio is under exclusive federal jurisdiction, it does not provide property tax revenue for the SFUSD. In order to offset the absence of tax revenue, the federal government established the School Impact Aid Program, administered by the U.S. Department of Education. Under this program, school districts can receive compensation for non-military students living on federal property. In fiscal year 2000, the SFUSD received approximately \$67,000 from the School Impact Aid Program for all federal facilities in San Francisco.

School enrollment by Presidio residents is expected to increase over time, based on the projected increase in residential population. In 2020, this population is projected to reach 3,770, with 125 elementary school pupils, 63 middle school pupils, and 86 high school pupils, for a total school enrollment of 274.

3.1.2 ENVIRONMENTAL CONSEQUENCES

The potential impacts of development within the Presidio on land use and socioeconomic conditions are assessed on pages 269 to 292 and 296 to 298 of the PTMP EIS. The sole impact on land use, housing, and schools identified by the PTMP EIS that would occur within the PHS district is a change in activity levels, given the district's underused condition. The PTMP EIS analysis is supplemented here by analysis of the issues specific to the alternatives being considered for the PHS project.

3.1.2.1 Requested No Action Alternative

Under the Requested No Action Alternative, land use in the PHS district would remain unchanged from early 2004. Specifically, Arion Press and Lone Mountain Children's Center would occupy Building 1802 and the lower half of Building 1806 (with office space in the upper half of the building), and another educational tenant would use the buildings recently vacated by the Jewish Community Center (Buildings 1803, 1805, and 1808). Buildings 1450 and 1451 would remain in use by the Trust as maintenance buildings, and Battery Caulfield would remain in use as a maintenance yard. The main hospital building, the houses on Wyman Avenue, and Buildings 1807, 1818, and 1819 would remain unrehabilitated and vacant.

The Requested No Action Alternative would not introduce residential use or any other use to the PHS district's unrehabilitated buildings, and thus would not accommodate either adult or school-age residents. The mix of land uses proposed for the district in the PTMP would not be accomplished. As a result, the Presidio as a whole would be unlikely to achieve its projected housing supply (about 1,654 units) or accommodate the projected growth in population (3,770 residents). With estimated employment of 61 jobs, the Requested No Action Alternative would have an associated housing demand of 39 units (see Table 6 for a comparison of the alternatives).

The size and scale of the main hospital building would not change under this alternative. Because the building would remain vacant, the resulting density or level of activity in the district would be extremely modest. Only about 68,000 gross sf would be occupied within the 42-acre district, and about 58,000 gross sf would be occupied within the 18-acre lower plateau. As a comparison, 58,000 sf is less than the amount contained in the 1.5-acre city block (a half-size block) bounded by 14th and 15th Avenues, Lake Street, and the Presidio, which contains 49 dwelling units.

The Requested No Action Alternative would be inconsistent with the PTMP's land use goals, planning principles regarding preservation of historic buildings, and strategies for housing rehabilitation and conversion. Under this alternative, the district would remain underused, historic buildings would remain unoccupied, and the vision of a residential and educational community would not be fulfilled.

Table 6. Projected Land Use, Population, Employment, and School Enrollment at the PSHH District by Alternative

ALTERNATIVE	TOTAL DWELLING UNITS		SENIOR UNITS	POPULATION		EMPLOYMENT			SCHOOL ENROLLMENT
	STUDIOS & 1 BR	2+ BR		ADULT	SCHOOL-AGE	NON-RESIDENTIAL USES (GSF)	JOBS	HOUSING DEMAND (DWELLING UNITS)	FULL- OR PART-TIME STUDENTS ON-SITE
Requested No Action Alternative	0	0	0	0	0	68,000	61	39	387
Alternative 1	198	12	0	305	43	190,000	140	90	1,422
Alternative 2	109	121	0	429	60	67,000	138	88	89
Alternative 3	218	12	0	333	46	42,000	20	13	89
Alternative 4	167	102	155	385	54	30,000	>20	>13	89

Source: Presidio Trust.

Derived from PTMP EIS assumptions regarding employment density, housing demand, and the percentage of the residential population that is school-age (12.2%).

Household size = 2.6 persons per 2+BR unit, 1.6 persons per studios/1BR unit, and 1.0 person per senior unit

School enrollment = existing Lone Mountain enrollment plus 9 students per 1,000 gsf of educational use in additional school space

BR = bedrooms; GSF = gross square feet

3.1.2.2 Alternative 1: PTMP Alternative

The rehabilitation and reuse of buildings within the PSHH district under Alternative 1 would result in activity levels as described in the PTMP EIS. The PSHH would be used primarily as residential apartments, although some educational use would also be included in the building. Educational uses such as schools would also fill the accessory buildings on the site, except for the residential buildings along Wyman Avenue, which would be rehabilitated for residential use.

The addition of 210 dwelling units and 190,000 sf of education-related uses under Alternative 1 would increase the level of activity within the PSHH district dramatically when compared to the Requested No Action Alternative, but would be generally consistent with the PTMP. The addition of 210 dwelling units, most of them small studios or one-bedrooms, would provide for a residential population of up to 348 people.¹⁶ Space used for education-related uses would generate an estimated 140 employees, as well

¹⁶ The PTMP EIS estimated residential population by using an average of 2.6 residents per dwelling unit, regardless of unit size, and an average of 1.6 residents per SRO unit, resulting in a Presidio-wide population projection of 3,770 residents in up to 1,654 units. To more accurately reflect the population associated with the residential apartments included in the PSHH alternatives (apartments that would generally be smaller than other Presidio units), this analysis assumes 1.6 persons per studio and one-bedroom apartment and 2.6 persons per two-bedroom apartment. One person is assumed for each senior housing unit. The revised population assumptions do not change the trip generation factors used in the traffic analysis, and derive from U.S. Census data for western San Francisco and data gathered from several rental apartment projects in areas of San Francisco outside of downtown. These data are available for review in the Presidio Trust Library, 34 Graham Street, at the Presidio.

as a substantial number of students and visitors. Housing demand associated with the increase in employment would be considerably less than the proposed increase in housing supply.

Incorporation of about 190,000 sf of non-residential uses in this alternative would create a mix of land uses that is less compatible with the surrounding residential neighborhood than a purely residential project. The mix of uses in Alternative 1 would result in overall higher activity levels (residents+employees+students) than Alternatives 2, 3, or 4. In addition, Alternative 1 would involve reuse of Building 1801 for both residential and educational use, potentially resulting in use conflicts within the main hospital building. For example, residents might be disturbed by students arriving early in the morning.

In the Presidio as a whole, the number of conventional dwelling units that are currently occupied would increase to about 1,240 under this alternative. When combined with the current number of dormitory units, the total of 1,300 occupied units would remain well below the total of 1,654 units allowed for in the PTMP and analyzed in the PTMP EIS. For a time, however, conventional units (as opposed to dormitory-style units) would represent a larger percentage of the overall unit count than anticipated in the PTMP EIS. As described in the PTMP, the unit mix within the Presidio will fluctuate over time, and will begin to change dramatically when the planned removal of large, conventional units at Wherry Housing is initiated.

The addition of 210 dwelling units would represent an increase of less than one percent in the Richmond neighborhood of San Francisco that adjoins the district.¹⁷ In general, residential use would be compatible with surrounding neighborhood uses, which are principally residential, and educational use would be more intense than most surrounding uses due to the level of activity associated with students. The scale of the PHSB would remain far greater (taller and bigger) than nearby single-family homes, but this difference in scale already exists and would not be accentuated in any way. With 210 dwelling units in the 18-acre lower plateau, the area would have a residential density of about 12 units per acre, incrementally less than the surrounding neighborhood.¹⁸ Incorporation of educational use would make the area dissimilar to the immediately adjacent neighborhood, but similar to portions of the larger Richmond district that accommodate hospitals, schools, and other institutions.

Arion Press and Lone Mountain Children's Center, which are existing tenants, would remain at their current location under Alternative 1, but some interim land uses in the PHSB district would be displaced. Specifically, the waste transfer activity that currently occurs behind the PHSB would be relocated to the former U.S. Army transfer yard (across from Amatory Loop), an area within the Presidio's historic forest. Under Alternative 1, composting activities would remain in the parking lot behind the PHSB until a suitable new location is found. Battery Caulfield would remain in use as a maintenance or corporation yard until its transformation into open space (natural area and/or recreation) is separately planned for and

¹⁷ According to the Housing Element of the General Plan (2004a) by the CCSF Planning Department, there are about 36,700 dwelling units in the Richmond district, of which 28 percent are single-family homes and 17 percent are within buildings of 10 or more units.

¹⁸ A comparable 18-acre area within the immediately adjacent neighborhood contains 318 units, for a residential density of about 18 units per acre. See Figure A-1 in Appendix A of the Draft SEIS.

funded. NPS maintenance activities at Battery Caulfield would be displaced and consolidated or relocated elsewhere in the south district of the GGNRA.

Residents of the new housing proposed within the PSHH district under Alternative 1 could include up to approximately 43 school-age children. These students would seek enrollment at area schools, including schools operated by the SFUSD. Under mitigation agreed to during the PTMP planning process, the Trust will make all reasonable efforts to collaborate with the SFUSD to locate necessary space for students residing at the Presidio and to continue participation in the federal School Impact Aid Program.

3.1.2.3 Alternative 2: Wings Retained / Trust Revised Alternative

The rehabilitation and reuse of buildings within the PSHH district under Alternative 2 would increase activity levels when compared to the Requested No Action Alternative, but these activity levels would be somewhat less than under Alternative 1, since the resident and employee population under Alternative 1 would be supplemented by a large daytime student population. Under Alternative 2, the PSHH and the existing Wyman Avenue residences would be used as residential apartments and the majority of other buildings on the site would be used for offices and other uses. Compared to Alternative 1, this would result in a lower daytime population of students and a similar daytime population of employees, but a higher population of residents. Non-residential uses would occupy approximately 67,000 sf.

The addition of up to 230 dwelling units and 67,000 sf of non-residential uses would differ from the PTMP in two regards. First, unlike Alternative 1, Alternative 2 would place greater emphasis on residential use than on educational use. Second, as a result of the increased emphasis on residential use, the total number of dwelling units within the district would increase above the maximum of 210 specified on page 45 of the PTMP. As a result, the Trust would be constrained from reaching the maximum number of dwelling units stated for one or more other districts of the Presidio, so as to stay below the overall maximum of 1,654.

The addition of up to 230 dwelling units, more than half of them two-bedroom apartments, would provide for a residential population of about 489. This residential population would be larger than anticipated under the other alternatives. Space used for non-residential uses would generate an estimated 138 employees, about the same as Alternative 1 and far greater than Alternatives 3 and 4.

In the Presidio as a whole, the number of conventional dwelling units that are currently occupied would increase to about 1,260 under this alternative. When combined with the current number of dormitory units, the total of 1,320 occupied units would remain well below the total of 1,654 units allowed for in the PTMP and analyzed in the PTMP EIS. For a time, however, conventional units (as opposed to dormitory-style units) would represent a larger percentage of the overall unit count than anticipated in the PTMP EIS. As described in the PTMP, the unit mix within the Presidio will fluctuate over time, and will begin to change dramatically when the planned removal of conventional units at Wherry Housing is initiated.

The addition of 230 dwelling units would represent an increase of less than one percent in the Richmond neighborhood of San Francisco that adjoins the district. In general, residential uses would be compatible with surrounding neighborhood uses, which are principally residential. The scale of the PSHH would

remain far greater (taller and bigger) than nearby single-family homes, but would not differ from the scale anticipated under the Requested No Action Alternative or Alternative 1. Similar to Alternative 1, occupied buildings within the 18-acre lower plateau would not exceed 383,000 gross sf. The residential density in the lower plateau would be about 13 units per acre.

Arion Press and Lone Mountain Children's Center, which are existing tenants, would remain at their current location under Alternative 2, but some interim land uses in the PHSH district would be displaced, similar to Alternative 1. Specifically, the waste transfer activity that currently occurs behind the PHSH would be relocated to the former U.S. Army transfer yard (across from Amatury Loop), an area within the Presidio's historic forest. Under Alternative 2, the parking lot behind the PHSH on the upper plateau would continue to be used for composting until a suitable new location is found. As in the Requested No Action Alternative and Alternative 1, Battery Caulfield would remain in use as a maintenance or corporation yard until its transformation into open space (natural area and/or recreation) is separately planned for and funded. NPS maintenance activities at Battery Caulfield would be displaced and consolidated or relocated elsewhere in the south district of the GGNRA.

Residents of the new housing proposed within the PHSH district under Alternative 2 could include up to approximately 60 school-age children. These students would seek enrollment at area schools, including schools operated by the SFUSD. Under mitigation agreed to during the PTMP planning process, the Trust will make all reasonable efforts to collaborate with the SFUSD to locate necessary space for students residing at the Presidio and to continue participation in the federal School Impact Aid Program.

3.1.2.4 Alternative 3: Wings Removed Alternative

The rehabilitation and reuse of buildings within the PHSH district under Alternative 3 would increase activity levels when compared with the Requested No Action Alternative, but not to the same extent as Alternative 1 or Alternative 2, and not to the extent described in the PTMP EIS. The main hospital building would be reduced in size and converted to residential use. The majority of other buildings on the site would also be rehabilitated for residential use. Non-residential uses would occupy approximately 42,000 sf.

The addition of up to 230 dwelling units and 42,000 sf of non-residential uses would differ from the PTMP in two regards. First, similar to Alternative 2, Alternative 3 would place greater emphasis on residential use than on educational use. Second, as a result of the increased emphasis on residential use, the total number of dwelling units within the PHSH district would increase above the maximum of 210 specified on page 45 of the PTMP. As a result, the Trust would be constrained from reaching the maximum number of dwelling units stated for one or more other districts of the Presidio, so as to stay below the overall maximum of 1,654.

The addition of up to 230 dwelling units, most of them small studios or one-bedrooms, would provide for a residential population of up to about 379. This residential population would be larger than anticipated under Alternative 1 and smaller than anticipated under Alternatives 2 and 4. Space devoted to non-

residential uses would generate an estimated 20 employees, which would be fewer than expected under Alternatives 1 and 2 and about the same as expected under Alternative 4.

In the Presidio as a whole, the number of conventional dwelling units that are currently occupied would increase to about 1,260 under this alternative, as it would under Alternative 2. When combined with the current number of dormitory units, the total of 1,320 occupied units Presidio-wide would remain well below the total of 1,654 units allowed for in the PTMP and analyzed in the PTMP EIS. For a time, however, conventional units (as opposed to dormitory-style units) would represent a larger percentage of the overall unit count than anticipated in the PTMP EIS. As described in PTMP, the unit mix within the Presidio will fluctuate over time, and will begin to change dramatically when the planned removal of conventional units at Wherry Housing is initiated.

The addition of 230 dwelling units would represent an increase of less than one percent in the Richmond neighborhood of San Francisco that adjoins the district. In general, residential uses would be compatible with surrounding neighborhood uses, which are principally residential. The scale of the PHSB would remain far greater (taller and bigger) than nearby single-family homes, but unlike Alternatives 1 and 2, Alternative 3 would address the difference in scale by removing the non-historic wings of the building. The resulting 258,000 gross sf of occupied buildings would include 230 units within the 18-acre lower plateau for a residential density of 13 units per acre on the lower plateau. This density would be incrementally lower than densities in most of the surrounding neighborhood.

Arion Press and Lone Mountain Children's Center, which are existing tenants, would remain at their current location under Alternative 3, but some interim land uses in the PHSB district would be displaced. Specifically, the waste transfer activity that currently occurs behind the PHSB would be relocated to the former U.S. Army transfer yard (across from Amatory Loop), an area within the Presidio's historic forest. Under Alternative 3, composting activities would remain at the parking lot behind the PHSB on the upper plateau until a suitable new location is found. As in Alternatives 1 and 2, Battery Caulfield would remain in use as a maintenance or corporation yard until its transformation into open space (natural area and/or recreation) is separately planned for and funded. NPS maintenance activities at Battery Caulfield would be displaced and consolidated or relocated elsewhere in the south district of the GGNRA.

Residents of the new housing proposed within the PHSB district under Alternative 3 could include up to approximately 46 school-age children. This number would be less than under Alternative 2 (74) and about the same as under Alternatives 1 and 4. These students would seek enrollment at area schools, including schools operated by the San Francisco Unified School District. Under mitigation agreed to during the PTMP planning process, the Trust will make all reasonable efforts to collaborate with the SFUSD to locate necessary space for students residing at the Presidio and to continue participation in the federal School Impact Aid Program.

3.1.2.5 Alternative 4: Battery Caulfield Alternative

The rehabilitation and reuse of buildings within the PHSB district under Alternative 4 would increase activity levels beyond the levels projected under the Requested No Action Alternative, but not to the same

extent as Alternative 1, and not to the extent described in the PTMP EIS. The PHSH and the majority of other buildings on the site would be used as residential apartments. Non-residential uses would occupy approximately 30,000 sf.

The addition of up to 269 dwelling units (155 of them for seniors) and 30,000 sf of non-residential uses would constitute a change from existing conditions within the PHSH district and would differ from the PTMP in two regards. First, unlike Alternative 1 and like Alternatives 2 and 3, Alternative 4 would place greater emphasis on residential use than on educational use. Second, as a result of the increased emphasis on residential use, the total number of dwelling units within the district would increase above the maximum of 210 specified on page 45 of the PTMP. As a result, the Trust would be constrained from reaching the maximum number of dwelling units stated for one or more other districts of the Presidio, so as to stay below the overall maximum of 1,654.

The addition of up to 269 dwelling units, some of them for seniors and over 100 of them two-bedrooms, would provide for a residential population of about 439. This residential population would be larger than anticipated under Alternative 1 (348) and Alternative 3 (379), and smaller than anticipated under Alternative 2 (489). Space devoted to non-residential uses would generate an estimated 20 employees, which would be far fewer than expected under Alternatives 1 and 2, and about the same as expected under Alternative 3.

In the Presidio as a whole, the number of conventional dwelling units that are currently occupied would increase to about 1,299 under this alternative. When combined with the current number of dormitory units, the total of 1,359 occupied units would remain well below the total of 1,654 units allowed for in the PTMP and analyzed in the PTMP EIS. For a time, however, conventional units (as opposed to dormitory-style units) would represent a larger percentage of the overall unit count than anticipated in the PTMP EIS. As described in the PTMP, the unit mix within the Presidio will fluctuate over time, and will begin to change dramatically when the planned removal of conventional units at Wherry Housing is initiated.

The addition of 269 dwelling units would represent an increase of less than one percent in the Richmond neighborhood of San Francisco that adjoins the district. In general, residential uses would be compatible with surrounding neighborhood uses, which are principally residential. The scale of the PHSH would remain far greater (taller and bigger) than nearby single-family homes, but as with Alternative 3, this difference in scale would be reduced by removal of the non-historic wings. Alternative 4 would have about the same residential density as Alternative 3 on the lower plateau (about 13 units per acre), but unlike any of the other alternatives would also introduce up to 73 dwelling units at the Battery Caulfield site within the upper plateau. This would constitute a change in land use at Battery Caulfield. District-wide, this alternative would result in 362,000 occupied sf and 269 dwelling units on 42 total acres, about 21 acres of which are considered “previously disturbed” in the PTMP.

Arion Press and Lone Mountain Children’s Center, which are existing tenants, would remain at their current location under Alternative 4, but some interim land uses in the PHSH district would be displaced. Specifically, the waste transfer activity that currently occurs behind the PHSH would be relocated to the former U.S. Army transfer yard (across from Amatory Loop), an area within the Presidio’s historic forest.

Under Alternative 4, composting activities would remain at the parking lot behind the PSHH on the upper plateau until a suitable new location is found. Unlike in Alternative 1, 2, or 3, Battery Caulfield would be converted to residential use, displacing all maintenance or corporation yard functions. Trust activities would be relocated to Battery Dynamite in the Fort Scott district, and NPS maintenance activities would be consolidated or relocated elsewhere in the south district of the GGNRA.

Residents of the new housing proposed within the district under Alternative 4 could include approximately 54 school-age children. This number would be more than under Alternatives 1 (43) and 3 (46), and fewer than under Alternative 2 (60). These students would seek enrollment at area schools, including schools operated by the SFUSD. Under mitigation agreed to during the PTMP planning process, the Trust will make all reasonable efforts to collaborate with the SFUSD to locate necessary space for students residing at the Presidio and to continue participation in the federal School Impact Aid Program.

Residential development at Battery Caulfield as proposed under Alternative 4 would be inconsistent with the PTMP's guidance to concentrate development within the lower plateau of the PSHH district, although development would remain, as required, within a generalized area of development (i.e., the former missile site and current maintenance yard). Mitigation measures described in Section 3.11, Hydrology, Wetlands, and Water Quality, and Section 3.12, Biology, including providing wildlife corridors and buffers for native plant communities and minimizing changes in local hydrology, would be required to protect and enhance open space as envisioned in the PTMP.

3.1.2.6 Park Presidio Boulevard Access Variant

The addition of a direct access between the PSHH district and Park Presidio Boulevard would not alter land use, population, housing, employment, or school enrollment associated with any of the alternatives.

3.1.2.7 Cumulative Effects

The cumulative effects of added employment and population at the Presidio are analyzed in the PTMP EIS and would not increase as a result of any of the project alternatives analyzed here. The shift from a shared emphasis on residential and educational uses in the PTMP EIS analysis and Alternative 1 to mostly residential use in Alternatives 2, 3, and 4 would tend to reduce cumulative effects of those alternatives, even though the overall number of dwelling units in the PSHH district would be greater than originally analyzed, as would the percentage of units Presidio-wide that are conventional units versus dormitory-style units. This reduction in effects, as demonstrated by the transportation analysis (see Section 3.2), is attributable to the higher levels of activity generally associated with educational uses than with residential uses.

From a land use and socioeconomic perspective, the reactivation of the PSHH district under Alternatives 1 through 4 after many years of vacancy would benefit San Francisco's overall housing and employment base whether considered in isolation or in combination with other changes planned for the Presidio or surrounding areas.

3.1.3 MITIGATION MEASURES

All of the alternatives will include adopted mitigation measures from the PTMP EIS as conditions of approval, and therefore none of the alternatives would result in significant environmental impacts. The Requested No Action Alternative and Alternatives 2, 3, and 4 would differ from assumptions in the PTMP EIS, but all could be accomplished within the overall parameters of the adopted Plan and would result in less activity at the site than Alternative 1. The following mitigation measures are derived from the PTMP EIS and were adopted as conditions of approval at the end of the PTMP planning and environmental review process.

CO-2 Jobs/Housing Balance Monitoring – The Trust will monitor housing demand, occupancy, unit mix, and progress toward a jobs/housing balance, and will accommodate Presidio-based employees at a range of income levels. As part of this monitoring effort, the Trust will ensure that the total number of dwelling units Presidio-wide does not exceed the maximum of 1,654.

CO-3 Collaboration with SFUSD – The Trust will make all reasonable efforts to collaborate with the SFUSD to locate necessary space for students residing at the Presidio and to continue participation in the federal School Impact Aid Program.

Preparation and review of this SEIS meets requirements of PTMP EIS Mitigation Measure CO-1 *Monitoring Area B Uses*, which requires that the Trust review proposed uses for consistency with the PTMP planning principles and consult with the NPS regarding activities with the potential to significantly affect Area A resources. No additional measures have been identified.

3.2 Transportation

Traffic, transit, parking, and other transportation-related issues within the Presidio are described on pages 168 to 183 and 302 to 327 of the PTMP EIS. This analysis is supplemented below with updated information and analysis specific to the PHSB project.

3.2.1 AFFECTED ENVIRONMENT

The PHSB district is located on the south side of the Presidio, near external roadways including Lake Street, California Street, Park Presidio Boulevard, 14th Avenue, and 15th Avenue. Access through the PHSB district is provided by Wedemeyer Street and Battery Caulfield Road. Figure 9 shows key roadways to and through the district.

Lake Street is an east–west-oriented street located immediately south of the Presidio, with bike lanes and on-street parking on both sides of the street in the vicinity of the project site, except between 14th Avenue and Park Presidio Boulevard, where there is no on-street parking. California Street is an east–west-oriented street located immediately south of Lake Street with one to two travel lanes each way and on-street parking on both sides of the street.

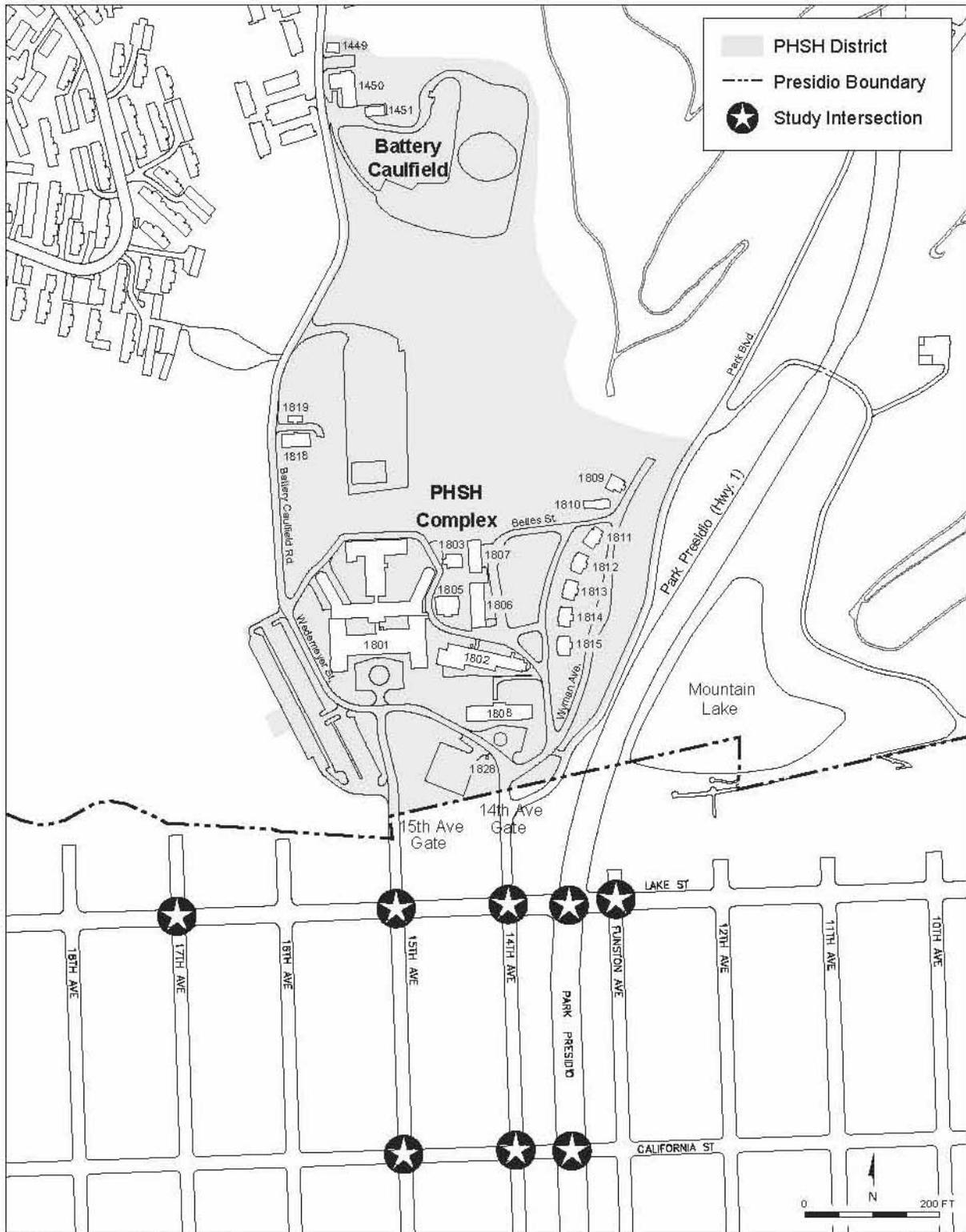


FIGURE 9. STUDY INTERSECTIONS

Source: Presidio Trust, 2006

Park Presidio Boulevard (Highway 1) is a major north–south arterial and a state-designated facility under Caltrans jurisdiction. It has three travel lanes each way with a raised median south of its intersection with Lake Street. Approximately 450 feet north of Lake Street, Park Presidio Boulevard narrows to two travel lanes each way south of the MacArthur Tunnel. Fourteenth Avenue is a north–south-oriented residential street with on-street parking on both sides of the street that narrows to a width of 30 feet north of Lake Street near the former entrance to the Presidio. The 14th Avenue Gate to the Presidio is currently closed to vehicular traffic. Fifteenth Avenue is a north–south-oriented street that is approximately 40 feet wide with one travel lane each way near Lake Street and California Street. It narrows to approximately 35 feet near the Presidio gate. Fifteenth Avenue has on-street parking on both sides of the street and provides access to the Presidio approximately 260 feet north of Lake Street. Wedemeyer Street and Battery Caulfield Road are Presidio roadways that provide access to the project site and connect 14th Avenue with Washington Boulevard north of the site. Wedemeyer Street has one travel lane each way and no on-street parking.

The 15th Avenue Gate is currently the only direct vehicular access to the project site from outside the Presidio. Traffic count data indicate that the weekday daily traffic through the 15th Avenue Gate has increased from about 920 vehicles in November 1998 to about 1,960 vehicles in October 2002, largely due to the occupancy of more buildings on the project site.

3.2.1.1 Historical and Existing Traffic Volumes

The PHSB district was historically distinct from the rest of the Presidio and housed a full-service medical facility providing acute medical and surgical services, in addition to a number of out-patient services. Fourteenth Avenue provided the main access point to the hospital from the 1930s to the 1950s, when the 15th Avenue Gate was added. No reliable source of data regarding traffic generated by the hospital – which was closed in 1980 – has been discovered. However, based on the number of hospital beds (260), staff accommodations (98), and staff (810) around the time the hospital closed, standard trip generation rates would suggest that between 3,400 and 4,500 daily vehicle trips were generated, including between 270 and 350 in the PM peak hour when traffic is generally at its worst.¹⁹

Today, the 15th Avenue Gate entrance is the only direct vehicular access to the project site from outside the Presidio. As part of the Presidio Bus Management Plan study (Robert Peccia & Associates 1999a), 24-hour machine traffic counts were conducted at the nine Presidio gates during the second week of May, the first week of August, and the third week of November 1998. The data indicate that approximately 780 to 920 vehicles per day entered the Presidio via the 15th Avenue Gate, which represented approximately one percent of all vehicles entering or exiting the park on a weekday.

Traffic volumes through the 15th Avenue Gate have increased as occupancy of buildings in the PHSB district has increased. Additional daily count data were collected on a weekday in October 2002, when buildings in the eastern part of the PHSB district were occupied by the Jewish Community Center, Arion Press, and Lone Mountain Children’s Center. The average daily traffic volume was 1,958 vehicles and

¹⁹ Calculations using the Institute of Transportation Engineers (ITE) trip generation rates for hospitals are available for review at the Presidio Trust Library, 34 Graham Street.

the PM peak hour traffic volume was 187 vehicles. Peak hour traffic data were collected again in October 2005, after the Jewish Community Center left the project site, and the PM peak hour gate volume was 133 vehicles.

Residents of the neighborhood immediately south of the site have general safety concerns related to traffic flow in and through the area, such as the heavy volume of U-turns at the intersection of Lake Street/14th Avenue and pedestrian crossings of Park Presidio Boulevard at the intersection with Lake Street. Accident data obtained from the San Francisco Department of Parking and Traffic indicate that there have been 13 accidents at the intersection of Park Presidio Boulevard and Lake Street over a five-year period, two of which involved pedestrians. There was also an accident at this location in 1996 that resulted in a bicyclist fatality. Neighborhood residents have expressed safety concerns related to the volume of traffic traveling through the 15th Avenue Gate as well as the speed of traffic exiting the gate.

3.2.1.2 Existing Traffic Conditions at Nearby Intersections

Existing intersection operating conditions were evaluated for weekday AM and PM peak period conditions at eight key intersections in the vicinity of the project site. These intersections would most likely experience the greatest change in traffic volumes due to changes in land uses at the project site. The eight study intersections, which are shown on Figure 9, are as follows:

- Lake Street/15th Avenue
- Lake Street/14th Avenue
- Lake Street/Park Presidio Boulevard
- California Street/15th Avenue
- California Street/14th Avenue
- California Street/Park Presidio Boulevard
- Lake Street/17th Avenue
- Lake Street/Funston Avenue

The turning movement traffic volumes at the first six study intersections were counted in November 2000 as part of the data collection efforts undertaken for the PTMP EIS. In January 2004, after review of PTMP EIS data for consistency with traffic volume data from other sources (including the preliminary data from the Doyle Drive study), new traffic counts were taken at the Lake Street/Park Presidio Boulevard and California Street/Park Presidio Boulevard intersections for the purposes of the February 2004 PHS EA. In response to comments on the EA, the intersections of Lake Street/17th Avenue and Lake Street/Funston Avenue were added to the analysis, and traffic counts at these intersections were gathered in May 2004. Intersection turning movement counts were counted again during the morning and afternoon peak commute periods at all eight study intersections in October 2005 in response to public comment about the applicability of traffic counts from the year 2000 used for some intersections in the Draft SEIS. For each study intersection, the peak hour total for the intersection traffic volume during each two-hour period was determined and used for the intersection capacity analysis. In order to conservatively account for the variation in traffic volumes for adjacent intersections, turning movement

volumes at intersections were balanced to adjust volumes to reflect the higher volume approaching from an adjacent intersection.

The AM and PM peak hour intersection operations analysis was conducted according to the methodology described in the 2000 Highway Capacity Manual (HCM 2000) (Transportation Research Board 2000). The HCM methodology calculates the average delay experienced by a vehicle traveling through the intersection and assigns a corresponding level of service (LOS), which ranges from LOS A, indicating volumes well below capacity with vehicles experiencing little or no delay, to LOS F, indicating volumes near capacity with vehicles experiencing extremely high delays. An intersection operating at LOS D or better is generally considered to be operating acceptably. Levels of service E and F are generally considered unacceptable. However, at two-way stop-controlled intersections, delay and LOS are calculated for each of the two stop-controlled approaches, and operating conditions are reported for the worst approach. As a result, LOS E and F conditions reported for the worst minor approach of two-way stop-controlled intersections may represent unacceptable conditions for a small number of vehicles, while the majority of cars traveling through the intersection are not affected.

For signalized intersections, the HCM 2000 methodology determines the average delay per vehicle for each lane group based on the particular movement, and traffic volume and capacity associated with that lane group. The average delay per vehicle is then aggregated for each approach and for the intersection as a whole. A combined weighted average delay and LOS are then presented for the intersection as a whole. For all-way stop-controlled intersections, average delay per vehicle is averaged across all approaches, and operating conditions are again reported for the average delay and LOS for the intersection as a whole.

Table 7 presents the results of the intersection LOS analysis for the existing weekday AM and PM peak hour conditions.²⁰ As the table indicates, all eight intersections operate at LOS D or better during the weekday AM peak hour. During the weekday PM peak hour, seven intersections operate at LOS D or better, with the southbound minor approach of the two-way stop-controlled intersection of California Street/14th Avenue currently operating at LOS E.

3.2.1.3 Projected Future Traffic Conditions

As regional population and employment continue to grow in the future, traffic on roadways near the project site is expected to increase over current levels. The increased occupancy of the Presidio as described in the PTMP would contribute to this overall increase in traffic volumes on nearby roadways, as shown in the PTMP EIS. The PTMP calls for access to and from the PHS district to be accommodated by a one-way couplet at the 14th and 15th Avenue Gates, with the 14th Avenue Gate accommodating inbound traffic and the 15th Avenue Gate accommodating outbound traffic.

²⁰ Detailed calculations of the intersection LOS analysis are provided in Appendix B.

Table 7. Intersection Levels of Service – Weekday AM and PM Peak Hours
Existing Conditions (2005)

INTERSECTION	TRAFFIC CONTROL DEVICE	AM PEAK HOUR		PM PEAK HOUR	
		DELAY ^a	LOS	DELAY ^a	LOS
Lake Street / 15 th Avenue	4-Way Stop	17.2	C	13.1	B
Lake Street / 14 th Avenue ^b	2-Way Stop	21.4	C	30.5	D
Lake Street / Park Presidio Boulevard	Traffic Signal	16.4	B	18.4	B
California Street / 15 th Avenue ^b	2-Way Stop	20.8	C	20.2	C
California Street / 14 th Avenue ^b	2-Way Stop	29.9	D	38.9	E
California Street / Park Presidio Boulevard	Traffic Signal	16.2	B	22.2	C
Lake Street / 17 th Avenue	2-Way Stop	17.5	C	16.7	C
Lake Street / Funston Avenue	2-Way Stop	16.9	C	15.9	C

Source: Wilbur Smith Associates 2006a.

Notes:

^a Delay is presented in seconds per vehicle based on the HCM 2000 methodology.

^b LOS and delay are shown for worst minor stop-controlled approach. Major approach is uncontrolled and without delay.
LOS = Level of service

3.2.1.4 Transit Service

Major public transit systems serving the project site include the San Francisco Municipal Railway (MUNI) and the Golden Gate Transit (GGT) system operated by the Golden Gate Bridge, Highway and Transportation District (GGBHTD). These services provide access to other regional transit providers such as BART, AC Transit, Caltrain, SamTrans, and the regional ferry system. In addition, the Presidio’s internal shuttle bus service (PresidiGo) serves the park and connects to MUNI and GGT buses at key transfer points.

Five MUNI routes provide regular scheduled daily transit service directly to the San Francisco neighborhoods adjacent to the project site: 1-California, 1AX-California “A” Express, 1BX-California “B” Express, 28-19th Avenue, and 28L-19th Avenue Limited. Figure 10 illustrates the location(s) of these routes in relation to the PHS district. These MUNI routes operate at a frequency of 6 to 15 minutes during peak commute periods.

Recent ridership data are available for each line’s maximum load point, defined as the location along the route at which the highest level of ridership typically occurs. In all instances, with the exception of the

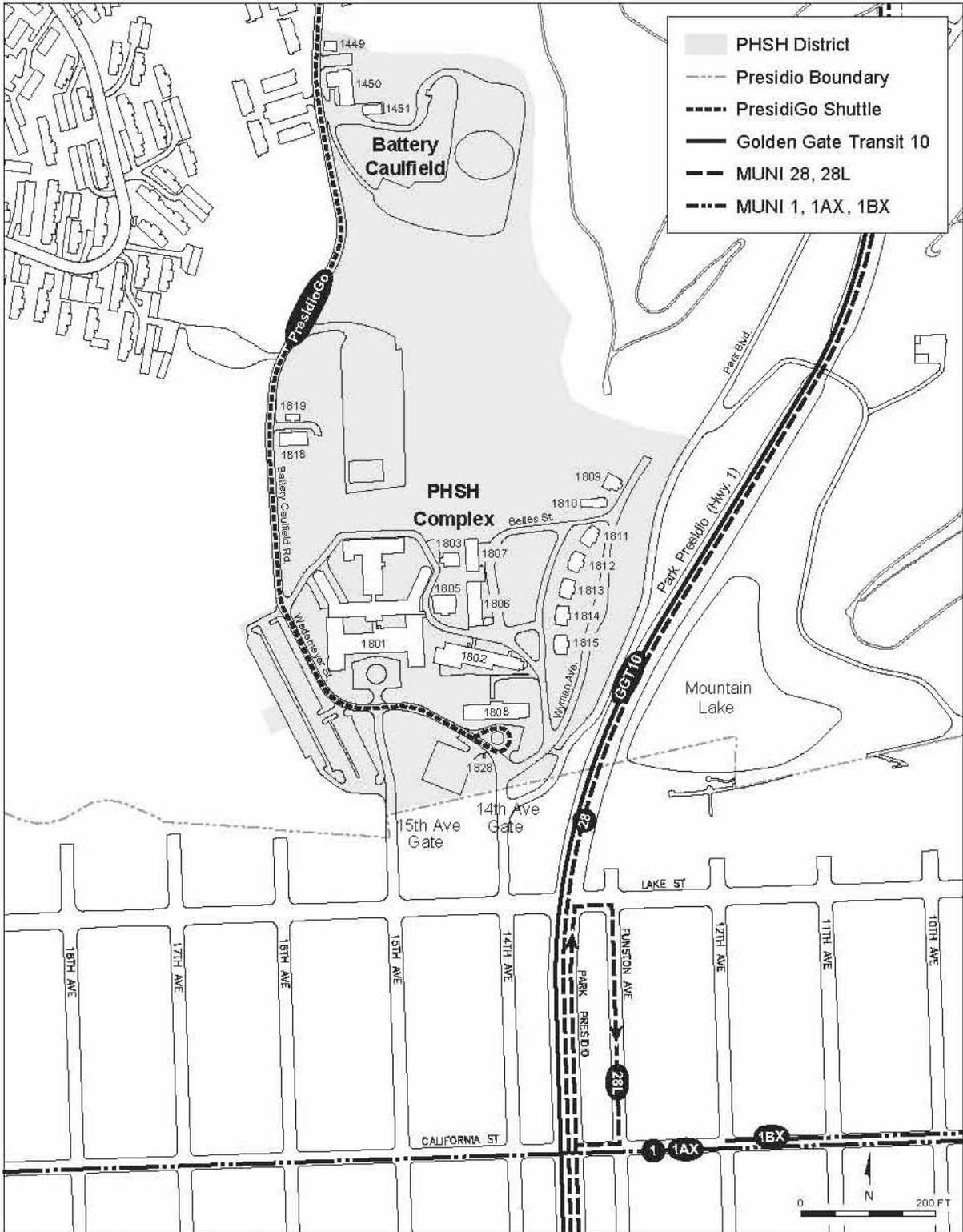


FIGURE 10. EXISTING TRANSIT ROUTES

Source: Presidio Trust, 2006

1AX-California route, the maximum load point occurs at a substantial distance from the Presidio (at least 1.6 miles from the PHSH district). Table 8 presents the maximum load points and associated current ridership for the various MUNI bus lines serving the Presidio or its adjacent neighborhoods during the AM and PM peak commute periods. Table 8 indicates that the MUNI lines serving the PHSH district are well-used, but most still have available capacity with the exception of the 1-California line in the AM peak hour, which currently exceeds capacity at the maximum load point (Clay/Powell).

GGT operates bus lines and ferry routes between San Francisco and Marin and Sonoma Counties. Twenty-one GGT bus lines pass through the Presidio during the AM and PM peak hours, all stopping at the Golden Gate Bridge Plaza. Only Route 10, however, proceeds south into San Francisco via Highway 1, Park Presidio Boulevard, and Geary Boulevard, with the stop nearest to the project site located at the California Street/Park Presidio Boulevard intersection. GGT ridership on this route is provided in Appendix B.

Early in 2002, the Trust began a free-of-charge shuttle service within the Presidio (PresidiGo) that runs on compressed natural gas. The shuttle's Around the Park route serves the entire Presidio with more than 35 stops within the park, including key transfer points to MUNI and GGT buses. The service currently operates on 30-minute headways from 6:30 AM to 7:30 PM on weekdays, and on one-hour headways from 11:00 AM to 6:00 PM on weekends.

The PresidiGo Around the Park route serves the project site with a stop at Wedemeyer Street, in front of Building 1808 (Nurses' Quarters) and the 14th Avenue Gate. It connects with the following bus lines: MUNI's 29-Sunset at Lincoln Boulevard, GGT's transbay lines at the Golden Gate Bridge Plaza, MUNI's 82X-Presidio and Wharves Express and PresidiGo Downtown route at the Transit Center near the Main Post, and MUNI's 43-Masonic on Letterman Drive. In October 2005, the PresidiGo service carried 11,570 passengers. In addition, PresidiGo provides special service for tenants and events within the Presidio. Special service must be arranged in advance and is generally paid for by the tenant or event sponsor.

As regional population and employment continue to grow, transit ridership and transit service levels are projected to increase above existing levels. The increased occupancy of the Presidio, together with increased visitorship, would contribute to the overall increase in transit ridership, as projected in the PTMP EIS. Mitigation measures to address transit service levels are identified in the PTMP EIS.

3.2.1.5 Bicycle and Pedestrian Conditions

Figure 11 illustrates the existing and proposed trails and bikeways in the vicinity of the project site. Paved sidewalks connect the main buildings within the PHSH district by extending, for example, along the north side of Wedemeyer Street in front of Buildings 1801 (the former hospital building) and 1808 (the former nurses' quarters). Pedestrian paths on both sides of 15th Avenue and on the east side of 14th Avenue connect the site to the nearby park entrances. A similar network of pedestrian paths links together the buildings on Wyman Avenue. A shared pedestrian-bicycle path also crosses under Highway 1 to connect the project site to the Mountain Lake area. Implementation of the Presidio Trails

Table 8. Existing (2004/2005) MUNI Passenger Loads

LINE	DIRECTION	AM PEAK HOUR				PM PEAK HOUR			
		MAXIMUM LOAD POINT	PEAK HOUR LOAD	PEAK HOUR CAPACITY	LOAD FACTOR	MAXIMUM LOAD POINT	PEAK HOUR LOAD	PEAK HOUR CAPACITY	LOAD FACTOR
1	to Howard / Main	Clay / Powell	886	866	102%	Clay / Polk	581	1,276	46%
	to Geary / 33 rd	Sacramento / Polk	365	819	45%	Sacramento / Powell	1,001	1,173	85%
1AX	to Davis / Pine (6:50 AM – 8:30 AM)	California / Park Presidio	322	353	91%	NA	NA	NA	NA
	to Geary / 33 rd (4:30 PM – 6:30 PM)	NA	NA	NA	NA	California / Park Presidio	205	294	70%
1BX	to Davis / Pine (6:45 AM – 8:45 AM)	California / Fillmore	630	707	89%	NA	NA	NA	NA
	to Park Presidio / California (4:30 PM – 6:30 PM)	NA	NA	NA	NA	California / Fillmore	265	334	79%
28	to Fort Mason	19 th Ave. / Lincoln	254	420	60%	19 th Ave. / Sloat	134	268	50%
	to Daly City BART	19 th Ave. / Sloat	133	378	35%	19 th Ave. / Lincoln	248	305	81%
	to Park Presidio / California	19 th Ave. / Lincoln	159	236	67%	NA	NA	NA	NA
	to Daly City BART	19 th Ave. / Sloat	115	331	35%	NA	NA	NA	NA

Source: MUNI, FY 2004-2005 Transit Data.

Notes:

NA = not applicable; indicates that no runs are made on that route in that direction during that particular time period

Peak hour capacity is based on the MUNI Bus and Metro FY 2004-2005 Weekday Conditions. It assumes an appreciable number of standees per vehicle (somewhere between 60 percent and 80 percent of the number of seated passengers, depending on the specific transit vehicle configuration) and may not include the effects of missed or late runs.

Peak hour ridership is assumed to be 60 percent of the two-hour peak period ridership, consistent with the guidance provided by the San Francisco Planning Department's Transportation Impact Analysis Guidelines for Environmental Review.

The 1-California line operates at a three-minute headway east of Fillmore Street; the peak hour loads correspond to maximum load points that occur in this zone.

and Bikeways Master Plan will extend this multi-use path around the south side of the project site to Battery Caulfield Road on the west side of the site. The plan will also provide a continuous pedestrian path in the Wedemeyer Street/Battery Caulfield corridor and add pedestrian paths that connect the project site to Lobos Creek and Baker Beach Apartments.

Sixty-seven pedestrians were counted at Battery Caulfield Road from 7:00 AM to 6:00 PM during a weekday in October 1999; 157 pedestrians were counted the following Saturday during the same time period (Robert Peccia & Associates 1999b).

There are several bicycle routes through the Presidio, although bicycles and vehicles currently share a standard-width roadway along most of these routes. Near the project site, San Francisco Citywide Bicycle Route 10 is a Class II (striped bicycle lanes in roadway) facility along Lake Street. In addition, 15th Avenue, 25th Avenue, and El Camino del Mar are part of the designated San Francisco Citywide Bicycle Routes (Routes 69, 75, and 95, respectively) that continue into the Presidio. Route 69 is a Class III facility (signed route only where bicyclists share roadway with vehicles, generally with wider travel lanes). In the immediate vicinity of the project site, Route 69 follows Wedemeyer Street and Battery Caulfield Road to connect with Route 65 (Class III) at Washington Boulevard. The Presidio Trails and Bikeways Master Plan allows for an uphill bike lane on Wedemeyer Street/Battery Caulfield Road between 15th Avenue and Washington Boulevard. Park Boulevard/West Pacific Avenue at the southeast corner of the site is a Class I facility (paved off-street path separated from motor vehicle traffic) that extends from 14th Avenue and crosses under Highway 1 to connect to the Presidio Golf Course parking area on West Pacific Avenue. This facility will be extended around the south side of the project site to Battery Caulfield Road on the west side of the site as part of implementation of the Presidio Trails and Bikeways Master Plan.

Forty-five bicyclists were counted at Battery Caulfield Road from 7:00 AM to 6:00 PM during a weekday in October 1999; 241 bicyclists were counted the following Saturday during the same time period.

3.2.1.6 Parking Conditions

On-street parking in the San Francisco neighborhood near the project site entrance is not metered but is mostly restricted to a two-hour time limit, except for local residents displaying the appropriate sticker. Near the project site, the “N” residential permit parking zone, in which an “N” sticker is required in order to legally exceed the two-hour parking limit, extends on both sides of 14th and 15th Avenues between California Street and the Presidio, on both sides of Lake Street between 14th and 15th Avenues, and on both sides of 15th Avenue and on the west side of 14th Avenue between California Street and Clement Street. The only other parking restriction in this area is for weekly street cleaning.

As part of a study to assess the potential “spillover” effects of daytime parking fees and time restrictions in the Presidio, parking supply and occupancy surveys were conducted in the early morning, midday, and late afternoon periods of weekdays in October 2001 and December 2000. Survey data indicate that there are approximately 260 on-street parking spaces on Lake and California Streets between 14th and 18th Avenues and on 14th and 15th Avenues between California Street and the Presidio. Parking occupancy

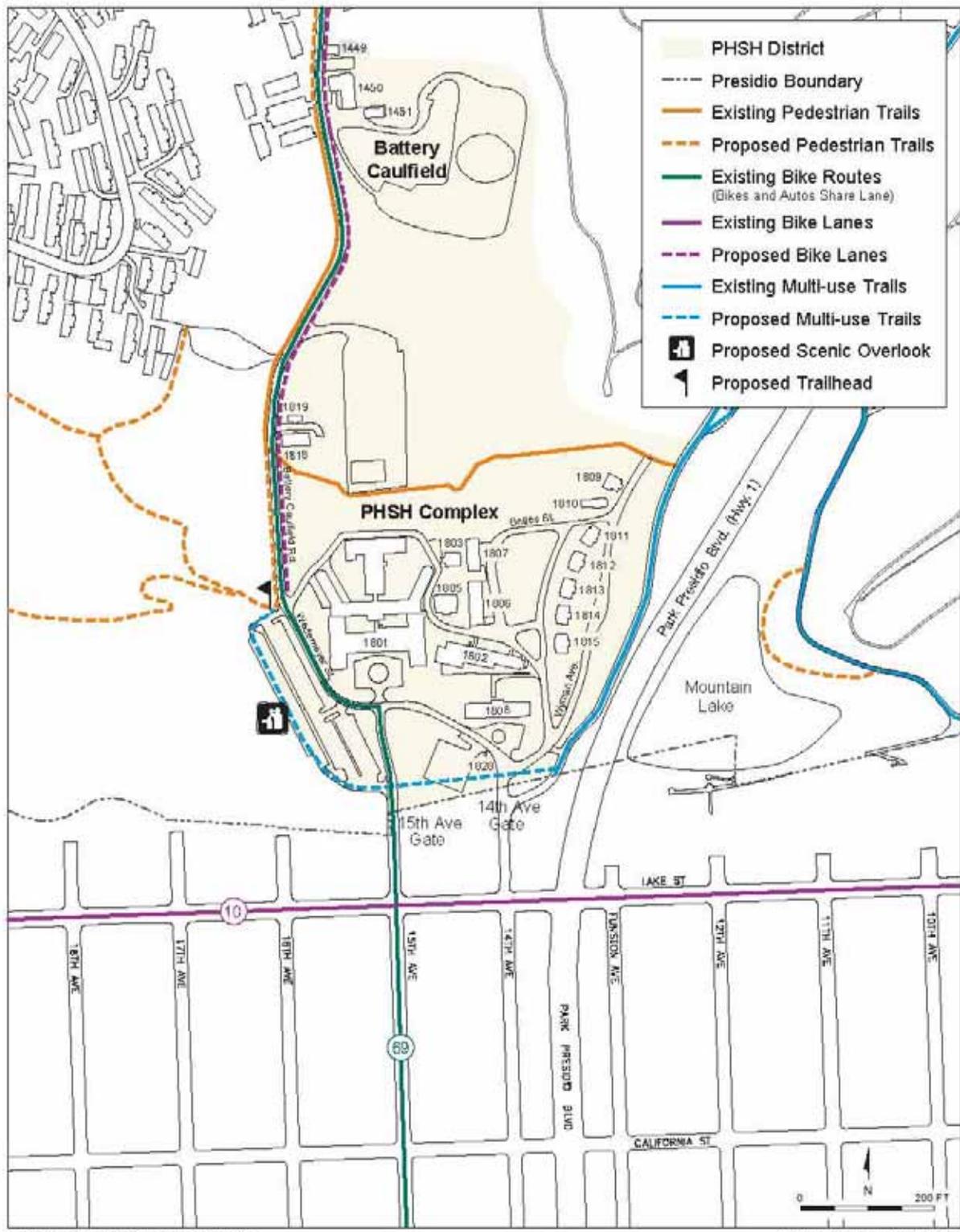


FIGURE 11. TRAILS AND BIKEWAYS

Source: Presidio Trust, 2006

data indicate that 87 percent of the parking spaces are occupied early in the morning (6:00-8:30 AM) as residents start leaving the area to go to work. About 60 percent are occupied during the middle of the day (11:00 AM-1:00 PM), and about 47 percent are occupied in the late afternoon (3:00-5:00 PM). The cluster of parked vehicles near the 15th Avenue Gate suggests that the Presidio is used by some residents in the surrounding neighborhood as a convenient parking area when sufficient on-street parking is not available, and that parking occupancy during late evenings and weekends likely nears 100 percent.

Parking is currently prohibited on the Battery Caulfield site, and there are approximately 30 parking spaces in the paved areas on the upper plateau. There are 306 parking spaces on the lower plateau. Because there are a number of vacant buildings within the PHSH complex, most of these spaces are unoccupied.

3.2.2 ENVIRONMENTAL CONSEQUENCES

Impacts related to transportation and circulation are discussed on pages 302 to 327 of the PTMP EIS, which indicates that the level of service at a number of intersections will degrade to unacceptable levels by the year 2020 and that no mitigation is available for some intersections. The PTMP EIS analysis is incorporated here by reference, together with results of two subsequent transportation studies: Access Study at 14th /15th Avenue Gates (Presidio Trust 2003e) and Presidio Public Health Service Hospital Transportation Study: Additional Alternatives Analysis (Wilbur Smith Associates 2003).²¹ Relevant sections are summarized below and expanded upon as necessary. Analysis of transportation-related impacts for the four PHSH alternatives is further detailed in technical memoranda prepared for this study and included as Appendix B.

3.2.2.1 Travel Demand

Trip generation rates, mode split, auto occupancy factors, and other travel and parking demand parameters were used to estimate the number of weekday daily, AM, and PM peak hour trips that would be generated by each of the PHSH alternatives.

The methodology is based on that used in the PTMP EIS, which, in turn, was based on standard data sources such as the San Francisco Planning Department Guidelines for Environmental Review, the State of California Department of Transportation (Caltrans), and the Institute of Transportation Engineers (ITE). Modal split and auto occupancy for each of the alternatives vary by land use type and differ between external trips and trips internal to the Presidio. All of these travel characteristics incorporate the transportation demand management (TDM) measures included in the PTMP. Parking demand has also been estimated for midday weekday, evening, and weekend conditions, based on the methodology used in the PTMP EIS.

In order to estimate the number of person trips that would be generated by each alternative, trip generation rates were developed for and applied to the different land use types (residential, senior

²¹ Copies of these studies are available for review at the Presidio Trust Library, 34 Graham Street.

residential, cultural/educational, day care/preschool, recreation, office, etc.) expected under each alternative. A trip generation rate expresses the number of person trips that would be generated by a unit (dwelling unit or square foot) of given land use type. Person trips for each alternative were calculated for weekday daily, AM peak hour, and PM peak hour conditions. In order to accurately reflect the different travel behavior characteristics of different types of housing, different trip generation rates were used for senior housing and conventional housing.

Trip generation rates for each land use type were estimated based on information from the San Francisco Planning Department Guidelines for Environmental Review, the ITE Trip Generation Manual-Sixth Edition, the Caltrans' 15th Progress Report on Trip Ends Generation Research Counts, and the San Diego Traffic Generators Manual. Based on these sources, the person trip generation rates shown in Table 9 were developed to reflect the land uses described for each alternative. The cultural/educational trip rate assumed in the PTMP transportation analysis reflects a land use that is a composite of museum space and its associated educational programs. Because this rate is not representative of the preschool facilities currently and recently located in the PHS district, the rate used in the PTMP transportation analysis was adjusted upward for space assumed to be used for preschool or other similar high-intensity educational use; the adjusted rate is reflected in Table 9. This rate would be applicable to 37,700 gross square feet (gsf) in the Requested No Action Alternative and Alternative 1, 4,750 gsf in Alternative 2, 10,000 gsf in Alternative 3, and 9,600 gsf in Alternative 4. The trip generation estimates conservatively assume the same trip generation rate for all dwelling units, regardless of the number of bedrooms. The assumed daily trip generation rate of 10 person trips per non-senior residential unit is consistent with the San Francisco Planning Department Guidelines for Environmental Review rate for a two-bedroom (or larger) unit. Detailed travel demand calculations by alternative are provided in Appendix B.

Based on the Trust's live/work model, it is expected that many of the employed residents living in the Presidio would work within the park. The expected balance of employment and residential land uses within the Presidio creates the opportunity for Presidio residents to work within the Presidio; therefore some of the trips would both originate and terminate in the Presidio. In order to evaluate internal trips differently from trips to and from other parts of San Francisco or the Bay Area, and to accurately reflect the effect of the jobs/housing balance on travel behavior, the number of person trips generated by the proposed land uses in each alternative was separated into external and internal trips. Depending on the alternative, approximately 6 to 13 percent of the trips generated or attracted to the project site were assumed to begin and end within the Presidio. Presidio residents working in the Presidio could walk, bike, or ride the internal shuttle service to destinations within the Presidio. Because internal trips are more likely to be made by transit, walking, or bicycling than external trips, the separation of the two types of trips allowed for the application of different assumptions regarding the mode of travel ("mode split"). Detailed information on the internal/external split and the mode split for each can be found in Appendix B.

Project site-generated person trips were assigned to travel modes in order to estimate the number of auto, transit, and walk/bicycle trips. Mode split information from the PTMP EIS is also used here. This

information was based on Presidio employee and resident surveys and the minimum performance standards of the Transportation Demand Management Program as outlined in Appendix D of the PTMP.

Table 9. Trip Generation Rates by Land Use

TIME PERIOD	NUMBER OF PERSON TRIPS AND TRIP DISTRIBUTION BY LAND USE TYPE							
	INDUSTRIAL/ WAREHOUSE ^a	OFFICE ^a	CONFERENCE ^a	RECREATION ^a	CULTURAL/ EDUCATIONAL ^a	DAY CARE ^a	RESIDENTIAL ^b	SENIOR RESIDENTIAL ^b
Daily	6.00	15.00	8.50	45.00	40.00	57.00	10.00	5.00
<i>Inbound</i>	50%	50%	50%	50%	50%	50%	50%	50%
<i>Outbound</i>	50%	50%	50%	50%	50%	50%	50%	50%
AM Peak Hour	0.60	2.25	0.85	2.48	2.0	9.11	0.90	0.20
<i>Inbound</i>	80%	90%	80%	60%	80%	53%	20%	20%
<i>Outbound</i>	20%	10%	20%	40%	20%	47%	80%	80%
PM Peak Hour	0.90	1.50	0.85	4.50	4.0	10.25	1.05	0.25
<i>Inbound</i>	20%	15%	30%	50%	50%	47%	70%	70%
<i>Outbound</i>	80%	85%	70%	50%	50%	53%	30%	30%

Source: Wilbur Smith Associates 2006b.

Notes:

^a Number of person trips per 1,000 gross square feet.

^b Number of person trips per dwelling unit.

Auto person trips refer to person trips involving either a driver or a passenger in a private vehicle. To determine the number of vehicle trips generated by the number of auto person trips, average vehicle occupancy was used. The assumed vehicle occupancy factor varies by land use. The chosen vehicle occupancy factors were based on those used in the PTMP EIS, which in turn are based on Citywide Travel Behavior Survey (CTBS) travel data published by the San Francisco Planning Department.

Table 10 presents the projected daily, AM peak hour, and PM peak hour travel demand estimates by mode for typical weekday conditions for the project alternatives analyzed. Daily and peak hour travel demand vary by alternative, depending on the land uses included in each alternative and the intensity of use. Detailed travel demand calculations incorporating mode shares are provided in Appendix B.

The number of vehicle trips expected to be generated by the Requested No Action Alternative is comparable to some of the other alternatives due to the travel behavior characteristics unique to educational uses. Trips to and from educational uses typically include passenger pick-ups and drop-offs, which essentially double the number of one-way vehicle trips generated.

Table 10. Estimated Trip Generation^a by Mode of Travel and by Alternative
Weekday Daily, AM and PM Peak Hour

TIME PERIOD	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 4
Daily					
Person Trips^b					
Auto	1,869	6,190	2,087	1,962	1,683
Transit	265	1,524	558	484	417
Other ^c	179	1,483	541	452	404
Total	2,313	9,197	3,186	2,898	2,504
<i>Vehicle Trips^d</i>	<i>1,296</i>	<i>4,286</i>	<i>1,725</i>	<i>1,542</i>	<i>1,295</i>
AM Peak Hour					
Person Trips^b					
Auto	295	542	224	209	159
Transit	41	114	58	48	34
Other ^c	27	103	56	43	31
Total	363	759	338	300	224
<i>Vehicle Trips^d</i>	<i>203</i>	<i>377</i>	<i>187</i>	<i>161</i>	<i>119</i>
PM Peak Hour					
Person Trips^b					
Auto	328	901	246	245	189
Transit	45	212	64	57	42
Other ^c	30	203	61	52	38
Total	403	1,316	371	354	269
<i>Vehicle Trips^d</i>	<i>225</i>	<i>623</i>	<i>202</i>	<i>189</i>	<i>142</i>

Source: Wilbur Smith Associates 2006b.

Notes:

^a Includes inbound and outbound trips.

^b Person trips refer to trips made by all modes.

^c "Other" includes walking, bicycling, and other modes.

^d Vehicle trips are calculated by dividing the auto person trips by the average number of persons per vehicle.

The modal split for the Requested No Action Alternative would be approximately 81 percent by auto, 11 percent by transit, and 8 percent by walking and bicycle. Alternative 1 would have a daily modal split of 67 percent by auto, 17 percent by transit use, and 16 percent by walking and bicycle. For the other three alternatives, the modal split would be approximately 66 to 68 percent by auto, 17 to 18 percent by transit use, and 16 to 17 percent by walking and bicycle. The average number of occupants per vehicle would be 1.2 to 1.5 for all alternatives. The number of weekday daily person trips would range from about 2,500 for Alternative 4 to approximately 9,200 for Alternative 1; vehicle trips would follow a similar pattern. In general, about 16 percent of the daily trips generated by the Requested No Action Alternative are expected to occur in the AM peak hour, and approximately 8 to 11 percent of the daily trips generated by Alternatives 1, 2, 3, and 4 would occur during the AM peak hour. About 17 percent of the daily trips generated by the Requested No Action Alternative are expected to occur in the PM peak hour, and 11 to 14 percent of the daily trips generated by Alternatives 1, 2, 3, and 4 would occur during the PM peak hour.

It is worth noting (see Table 10) that the daily vehicle trip estimates for Alternatives 2, 3 and 4 and the Requested No Action Alternative are between 49 and 62 percent less than the comparable estimates calculated for the PHSH's historic use as a hospital (see Section 3.2.1.1 above). The PM peak hour vehicle trip estimates for Alternatives 2, 3 and 4 and the Requested No Action Alternative are at least 17 to 47 percent less than the comparable estimates calculated for the PHSH's historic use as a hospital. The daily, AM peak hour and PM peak hour vehicle trip estimates for Alternatives 2, 3 and 4 and the Requested No Action Alternative are also less than that associated with implementation of the adopted PTMP (Alternative 1).

The geographic distribution of employee, visitor, and resident trips to the project site was based on data gathered as part of the PTMP EIS transportation analysis, which in turn was based on a survey of Presidio employees, the San Francisco Planning Department's Guidelines for Environmental Review, and results from the San Francisco County Transportation Authority travel demand model. The PHSH-generated trips were distributed to San Francisco, the East Bay, the North Bay, and the South Bay based on this distribution as shown in Table 11. The trips to and from San Francisco were further separated into four quadrants of the city, or superdistricts as described in the Citywide Travel Behavior Survey. Based on the trip distribution, external vehicle trips were assigned to the local street network, and external transit trips were assigned to the appropriate transit routes.

3.2.2.2 Traffic at Local Intersections

Currently, the 15th Avenue Gate is open to vehicular (and pedestrian) traffic and the 14th Avenue Gate is open only to pedestrians. This condition would continue unchanged under the Requested No Action Alternative, but would be modified under all other alternatives. The NPS 1994 General Management Plan Amendment for the Presidio originally recognized the need for improved access to the PHSH and recommended reopening the 14th Avenue Gate to vehicular traffic and operating the 14th Avenue and 15th Avenue Gates as a one-way couplet, with the 14th Avenue Gate accommodating northbound traffic entering the Presidio and the 15th Avenue Gate accommodating southbound traffic exiting the Presidio.

Table 11. Geographic Distribution of PHS-Generated Trips

AREA	PERCENTAGE OF TRIPS
San Francisco	
Superdistrict 1	11%
Superdistrict 2	27%
Superdistrict 3	23%
Superdistrict 4	19%
North Bay	10%
South Bay	5%
East Bay	5%
Total	100%

Source: Wilbur Smith Associates 2006b.

This one-way couplet was carried forward to the PTMP EIS, studied further in a 2003 Access Study (Presidio Trust 2003e), and is a component of the adopted PTMP. Thus, the operation of the one-way couplet was assumed for the assessment of traffic impacts related to Alternatives 1, 2, 3, and 4. These four PHS alternatives were also analyzed assuming the operation of the Park Presidio Boulevard Access Variant, which would provide a new intersection on Park Presidio Boulevard and would convert both the 14th and 15th Avenue Gates to provide inbound (northbound) traffic access only.

Although specific significance thresholds were not used to determine whether a transportation impact is significant or not, several factors were considered in making this determination. Table 12 provides a comparison of these factors to the significance thresholds used by the San Francisco Planning Department.

Tables 13 and 14 compare the projected average delay per vehicle and associated intersection level of service under the various alternatives with and without the Park Presidio Boulevard Access Variant in the AM peak hour and PM peak hour in future year 2025 (five years following the year of build-out analyzed in the PTMP EIS). The delay and level of service are also provided for existing conditions for ease of comparison. The existing level of service at area intersections is also compared with the level of service under each alternative in an “existing plus project” scenario provided in response to public comments on the Draft SEIS (see Response to Comment TR-30 in separate volume of this Final SEIS).

With the Park Presidio Boulevard Access Variant, signal timings for other intersections on Park Presidio Boulevard could be modified to optimize individual intersection operation and progression of traffic on Park Presidio Boulevard. In response to the expected cumulative changes in traffic volume on respective streets at the intersection of California Street/Park Presidio Boulevard, the analysis described below

Table 12. Comparison of Factors Used in Evaluating the Relative Significance of Transportation Impacts

	SAN FRANCISCO PLANNING DEPARTMENT	PHSH FINAL SEIS
Unsignalized Intersections	<p>Potentially significant if project-related traffic:</p> <ul style="list-style-type: none"> Causes the level of service (LOS) at the worst approach to deteriorate from LOS D or better to LOS E or F, and Caltrans signal warrants would be met; or Causes Caltrans signal warrants to be met when the worst approach is already operating at LOS E or F. 	<p>Two-way stop-controlled intersections</p> <p>Potentially significant if project-related traffic:</p> <ul style="list-style-type: none"> Causes Caltrans signal warrants to be met, and contributes considerably to the cumulative traffic increases that would cause the level of service at the worst approach to deteriorate from LOS D or better to LOS E or F. Causes Caltrans signal warrants to be met, and contributes considerably to cumulative traffic increases that would cause the average delay per vehicle to worsen considerably on the worst approach already operating at LOS E or F conditions. <p>All-way stop-controlled intersections</p> <p>Potentially significant if project-related traffic:</p> <ul style="list-style-type: none"> Contributes considerably to the cumulative traffic increases that would cause a deterioration in LOS from LOS D or better to LOS E or F, or from LOS E to LOS F, and Causes Caltrans signal warrants to be met.
Signalized Intersections	<p>Significant if:</p> <ul style="list-style-type: none"> Project-related traffic causes the intersection level of service to deteriorate from LOS D or better to LOS E or F, or from LOS E to LOS F, or Project would contribute considerably to the worsening of average delay per vehicle at an intersection operating at LOS E or F under existing conditions, or Project would contribute considerably to cumulative traffic increases that would cause deterioration in levels of service to unacceptable levels, or Project would cause major traffic hazards. 	<p>Potentially significant if project-related traffic:</p> <ul style="list-style-type: none"> Contributes considerably to the cumulative traffic increases that would cause a deterioration in LOS from LOS D or better to LOS E or F, or from LOS E to LOS F.

Source: Wilbur Smith Associates (e-mail correspondence) and Presidio Trust.

Table 13. Intersection Levels of Service – Weekday AM Peak Hour
Year 2025 Conditions

INTERSECTION	CONTROL	EXISTING CONDITIONS (2005)		REQUESTED NO ACTION ALT.		ONE-WAY COUPLET AT 14 TH & 15 TH AVE. GATES								VARIANT: NEW PARK PRESIDIO BLVD. ACCESS WITH INBOUND ONLY TRAFFIC AT 14 TH AND 15 TH AVE. GATES							
		DELAY ^a	LOS	DELAY ^a	LOS	ALT. 1	ALT. 2	ALT. 3	ALT. 4	ALT. 1	ALT. 2	ALT. 3	ALT. 4	ALT. 1	ALT. 2	ALT. 3	ALT. 4				
Lake Street / 15 th Avenue	4-way stop	17.2	C	43.3	E	38.3	E	30.4	D	30.2	D	27.6	D	27.0	D	23.6	C	23.0	C	22.6	C
Lake Street / 14 th Avenue ^b	2-way stop	21.4	C	39.0	E	> 50.0	F	> 50.0	F	> 50.0	F	> 50.0	F	> 50.0	F	43.7	E	40.3	E	39.1	E
Lake Street / Park Presidio Boulevard	Signal	16.4	B	22.0	C	22.9	C	21.9	C	21.8	C	21.6	C	20.9	C	20.2	C	20.3	C	19.9	B
California Street / 15 th Avenue ^b	2-way stop	20.8	C	24.5	C	20.9	C	19.9	C	19.8	C	19.6	C	22.4	C	20.2	C	19.9	C	19.8	C
California Street / 14 th Avenue ^b	2-way stop	29.9	D	> 50.0	F	> 50.0	F	> 50.0	F	> 50.0	F	> 50.0	F	> 50.0	F	> 50.0	F	> 50.0	F	> 50.0	F
California Street / Park Presidio Boulevard	Signal	16.2	B	20.4	C	20.5	C	20.4	C	20.4	C	20.4	C	20.5	C	20.5	C	20.5	C	20.5	C
Lake Street / 17 th Avenue ^b	2-way stop	17.5	C	20.7	C	21.2	C	20.6	C	20.6	C	20.4	C	20.8	C	20.3	C	20.3	C	20.2	C
Lake Street / Funston Avenue ^b	2-way stop	16.9	C	20.6	C	21.2	C	20.5	C	20.4	C	20.3	C	23.9	C	23.3	C	23.2	C	23.1	C
New Alternative Access / Park Presidio Boulevard														5.5	A	5.1	A	5.1	A	5.0	A

Source: Wilbur Smith Associates 2006c.

Notes:

^a Delay presented in seconds per vehicle based on the 2000 Highway Capacity Manual (HCM 2000) methodology.

^b Delay and level of service are presented for the worst minor street approach.

LOS = Level of service

Table 14. Intersection Levels of Service – Weekday PM Peak Hour
Year 2025 Conditions

INTERSECTION	CONTROL	EXISTING CONDITIONS (2005)		ONE-WAY COUPLET AT 14 TH & 15 TH AVE. GATES								VARIANT: NEW PARK PRESIDIO BLVD. ACCESS WITH INBOUND ONLY TRAFFIC AT 14 TH AND 15 TH AVE. GATES									
		REQUESTED NO ACTION ALT.		ALT. 1		ALT. 2		ALT. 3		ALT. 4		ALT. 1		ALT. 2		ALT. 3		ALT. 4			
		DELAY ^a	LOS	DELAY ^a	LOS	DELAY ^a	LOS	DELAY ^a	LOS	DELAY ^a	LOS	DELAY ^a	LOS	DELAY ^a	LOS	DELAY ^a	LOS	DELAY ^a	LOS	DELAY ^a	LOS
Lake Street / 15 th Avenue	4-way stop	13.1	B	31.4	D	28.2	D	18.3	C	17.8	C	17.2	C	19.3	C	16.8	C	16.7	C	16.5	C
Lake Street / 14 th Avenue ^b	2-way stop	30.5	D	> 50.0	F	> 50.0	F	> 50.0	F	> 50.0	F	> 50.0	F	> 50.0	F	> 50.0	F	> 50.0	F	> 50.0	F
Lake Street / Park Presidio Boulevard	Signal	18.4	B	39.8	D	49.1	D	39.7	D	39.6	D	38.7	D	41.5	D	35.9	D	35.3	D	35.3	D
California Street / 15 th Avenue ^b	2-way stop	20.2	C	30.1	D	29.4	D	25.3	D	25.6	D	25.3	D	28.8	D	26.1	D	26.2	D	25.8	D
California Street / 14 th Avenue ^b	2-way stop	38.9	E	> 50.0	F	> 50.0	F	> 50.0	F	> 50.0	F	> 50.0	F	> 50.0	F	> 50.0	F	> 50.0	F	> 50.0	F
California Street / Park Presidio Boulevard	Signal	22.2	C	42.1	D	42.2	D	42.1	D	42.1	D	42.1	D	47.9	D	43.6	D	43.2	D	42.9	D
Lake Street / 17 th Avenue ^b	2-way stop	16.7	C	21.0	C	22.0	C	20.9	C	20.9	C	20.7	C	21.8	C	20.7	C	20.6	C	16.1	C
Lake Street / Funston Avenue ^b	2-way stop	15.9	C	19.2	C	20.5	C	19.1	C	19.1	C	18.9	C	23.3	C	22.6	C	22.6	C	22.5	C
New Alternative Access / Park Presidio Boulevard														16.3	B	7.4	A	6.9	A	6.8	A

Source: Wilbur Smith Associates 2006c.

Notes:

^a Delay presented in seconds per vehicle based on the 2000 Highway Capacity Manual (HCM 2000) methodology.

^b Delay and level of service are presented for the worst minor street approach.

LOS = Level of service

assumes slight modifications to the signal timings at the intersection of California Street/Park Presidio Boulevard in the PM peak hour with the Park Presidio Boulevard Access Variant to better reflect the expected future ratio of traffic on California Street to that on Park Presidio Boulevard. These modifications would not compromise the ability of pedestrians to safely cross Park Presidio Boulevard. An additional second of green time was assumed for the north-south direction at the intersection of California Street/Park Presidio Boulevard, which would decrease the green time for the east-west direction by one second. However, the modified signal timing would still provide about five seconds more pedestrian crossing time in the east-west direction than is provided by the existing signal timing at this intersection in the AM peak hour.

Requested No Action Alternative – The Requested No Action Alternative would contribute an estimated 1,296 daily vehicle trips, 203 AM peak hour vehicle trips, and 225 PM peak hour vehicle trips to the street network near the project site. Because the Requested No Action Alternative would not reopen the 14th Avenue Gate, but assumes that the 15th Avenue Gate would accommodate both inbound and outbound traffic, the intersection of Lake Street/15th Avenue is expected to operate at a worse level of service and the intersection of Lake Street/14th Avenue is expected to operate at a better level of service under the Requested No Action Alternative compared to Alternatives 2, 3, and 4. The Requested No Action Alternative would also contribute to cumulative traffic congestion such that the level of service at a number of the study intersections would degrade to unacceptable levels in the future, as shown in Tables 13 and 14. Specifically:

- Five of the eight study intersections would operate at LOS D or better in the AM peak hour and six of the eight would operate at LOS D or better in the PM peak hour.

The all-way stop-controlled intersection of Lake Street/15th Avenue would operate at LOS E in the AM peak hour due to increased traffic volumes associated with population and employment trends in the Bay Area region, and because the 14th Avenue Gate would remain closed to vehicular traffic. Operation of the 14th Avenue and 15th Avenue Gates as a couplet as described in the PTMP would improve the operation of this intersection to LOS D or better. At the Lake Street/15th Avenue intersection, traffic associated with the Requested No Action Alternative would comprise 51 percent of the cumulative growth in the AM peak hour volume between 2005 and 2025. The effect of the Requested No Action Alternative on the AM peak hour operating conditions is considered a project-specific significant effect.

- Minor approach(es) to the two-way stop-controlled intersections of Lake Street/14th Avenue and California Street/14th Avenue would operate at LOS E or F in both the AM and PM peak hours. Mitigation measures have been identified for these intersections further below.

LOS E or F conditions on the minor approaches of two-way stop-controlled intersections are not always considered significant, for a number of reasons as described in Table 12. Determining if Caltrans signal warrants would be met is a primary criterion in assessing potential impacts on two-way stop-controlled intersections.

Under the Requested No Action Alternative, the Lake Street/14th Avenue intersection would not meet the Caltrans peak hour signal warrant in the AM or PM peak hour in year 2025, and therefore the effect is considered less than significant. Traffic associated with the Requested No Action Alternative would comprise 33 percent of the cumulative growth in the AM peak hour volume at this intersection between 2005 and 2025. In the PM peak hour, the Requested No Action Alternative would comprise 28 percent of the cumulative growth in the PM peak hour intersection volume between 2005 and 2025.

The California Street/14th Avenue intersection would meet the peak hour warrant in the PM peak hour in year 2025. However, the Requested No Action Alternative is not expected to add any traffic to the southbound approach to the California Street/14th Avenue intersection, the approach that would meet the warrant. Therefore, the effect on the California Street/14th Avenue intersection is considered cumulatively significant, but not project-specific. At the California Street/14th Avenue intersection, traffic associated with the Requested No Action Alternative would comprise 3 percent of the cumulative growth in the AM peak hour volume between 2005 and 2025. In the PM peak hour, the Requested No Action Alternative would comprise 4 percent of the cumulative growth in the PM peak hour intersection volume between 2005 and 2025.

The possible mitigation measure identified for the Lake Street/14th Avenue intersection in the PTMP EIS included signalization and re-striping to provide a westbound left-turn pocket (Mitigation Measure TR-11). The possible mitigation measure identified in the PTMP EIS for the California Street/14th Avenue intersection included installing stop signs on California Street at the intersection and re-striping to add a right-turn lane to the northbound approach, or possibly installing a traffic signal if queues on the westbound approach were determined to extend into the adjacent intersection of California Street/Park Presidio Boulevard.

While signalization would mitigate the operation of these intersections, coordination with the San Francisco Department of Parking and Traffic following its comments on the PTMP EIS raised questions about the need for improving the minor approaches to these intersections (PTMP EIS, Volume II, Section 5, page 5-59). It has been determined through subsequent analysis (Access Study at 14th/15th Avenue Gates) (Presidio Trust 2003e) that if delays consistent with LOS E or F occur on the minor approaches to Lake Street/14th Avenue, they could potentially be mitigated with other measures such as right-turn-only restrictions for the minor approaches if the CCSF determines that this is warranted.

The delay for the minor approach(es) to the intersection of Lake Street/14th Avenue would be comparable to the delay per vehicle expected for the minor approach(es) to the intersection of California Street/14th Avenue. Therefore, such measures would also likely improve the minor approach(es) to this intersection to LOS D or better in the AM and PM peak hours.

Alternative 1: PTMP Alternative – Under Alternative 1, more daily (4,286) and peak hour (377 AM, 623 PM) vehicle trips would be generated at the project site than in all other alternatives. Also, Alternative 1 would include the one-way couplet at 14th and 15th Avenues, which would not be in place in the Requested No Action Alternative. As a result of both these factors, traffic congestion experienced at

local intersections would differ slightly in Alternative 1 when compared to other alternatives, as shown in Tables 13 and 14. Specifically:

- Five of the eight study intersections would operate at LOS D or better in the AM peak hour, and six of the eight study intersections would operate at LOS D or better in the PM peak hour. Most intersections would operate at the same level of service with Alternative 1 as with the Requested No Action Alternative, with the exception of the intersection of Lake Street/14th Avenue in the AM peak hour. The worst minor approach to this two-way stop-controlled intersection would operate at LOS F with Alternative 1 compared to LOS E with the Requested No Action Alternative.
- The all-way stop-controlled intersection of Lake Street/15th Avenue would operate at LOS E in the AM peak hour due to increased traffic volumes associated with population and employment trends in the Bay Area region as well as the project. However, the average intersection delay would improve compared to the Requested No Action Alternative. The result of the signal warrant analysis (provided in Transportation Technical Memorandum No. 3 in Appendix B) shows that the intersection would not meet the Caltrans peak hour signal warrant with the volumes projected for Alternative 1 in the AM peak hour in 2025. Therefore, the effect resulting in LOS E operating conditions in the AM peak hour with Alternative 1 is considered less than significant. At the Lake Street/15th Avenue intersection, traffic associated with Alternative 1 (including the one-way couplet at the 14th and 15th Avenue Gates) would comprise 35 percent of the cumulative growth in the AM peak hour volume between 2005 and 2025.
- The minor approaches to the two-way stop-controlled intersections of Lake Street/14th Avenue and California Street/14th Avenue would operate at LOS F in both the AM and PM peak hours. If desired, turn restrictions at these intersections could reduce delays to an acceptable level, as described for the Requested No Action Alternative above.

At the Lake Street/14th Avenue intersection, traffic associated with Alternative 1 (including the one-way couplet at the 14th and 15th Avenue Gates) would comprise 60 percent of the cumulative growth in the AM peak hour volume between 2005 and 2025. In the PM peak hour, Alternative 1 (including the couplet) would comprise 57 percent of the cumulative growth in the PM peak hour intersection volume between 2005 and 2025. The effect of Alternative 1 on Lake Street/14th Avenue intersection operating conditions would be a significant project-specific effect in both peak hours.

At the California Street/14th Avenue intersection, traffic associated with Alternative 1 (including the one-way couplet at the 14th and 15th Avenue Gates) would comprise 30 percent of the cumulative growth in the AM peak hour volume between 2005 and 2025. In the PM peak hour, Alternative 1 (including the couplet) would comprise 25 percent of the cumulative growth in the PM peak hour intersection volume between 2005 and 2025. Alternative 1 is not expected to add traffic to the southbound approach of this intersection, and the effect on the intersection would be cumulatively significant in both peak hours.

- With the Park Presidio Boulevard Access Variant, the same intersections would generally operate at an unacceptable level of service in the AM and PM peak hours as without the direct access, with one exception. At the all-way stop-controlled intersection of Lake Street/15th Avenue, a decrease in delay experienced would improve the intersection level of service from LOS E to LOS D.

With the variant, at the Lake Street/14th Avenue intersection, traffic associated with Alternative 1 (including the one-way inbound configuration at the 14th Avenue Gate associated with the variant) would comprise 34 percent and 22 percent of the cumulative growth in the AM peak hour and PM peak hour volume between 2005 and 2025, respectively.

With the variant, at the California Street/14th Avenue intersection, traffic associated with Alternative 1 (including the one-way inbound configuration at the 14th Avenue Gate associated with the variant) would comprise 26 percent and 20 percent of the cumulative growth in the AM peak hour and PM peak hour volume between 2005 and 2025, respectively.

It should be noted that nearly all study intersections that were analyzed as part of the PTMP EIS are forecast to operate at different levels of service in 2025 than shown for year 2020 in the PTMP EIS. All intersections are forecast to operate at the same (two intersections) or worse (four intersections) level of service in the AM peak hour and the same (three intersections), better (two intersections) or worse (one intersection) level of service in the PM peak hour than forecast in the PTMP EIS. This is for three reasons:

1. The traffic counts collected in October 2005 for this Final SEIS vary from the traffic counts collected in the year 2000 for the PTMP EIS, and in many cases are somewhat less than the volumes counted in the year 2000. Since future volumes are derived from growth factors applied to existing volumes, the baseline future volumes are also less, which results in improved levels of service.
2. The PTMP EIS used an older (1994) Highway Capacity Manual (HCM) methodology because revisions to the methodology in 2000 were very recent and not widely accepted at the time of the analysis. The HCM 2000 methodology has since become widely accepted, and using this methodology most study intersections are forecast to operate at a worse level of service even with the same traffic volumes as those used in the PTMP EIS.
3. Finally, traffic volumes associated with Alternative 1 have been adjusted (increased) to include 37,700 gross square feet of high-intensity educational space with a higher trip generation rate than the balance of the cultural/educational space based on data collected during the Jewish Community Center's recent occupancy in the PSHS district. Thus, Alternative 1 in this SEIS would generate approximately 560 more daily vehicle trips than was predicted in the PTMP EIS, and traffic volumes at area intersections would be incrementally greater than projected in the PTMP EIS as a result.

The Trust would work with the San Francisco Department of Parking and Traffic to develop acceptable improvements if the CCSF believes these are warranted. It is likely, based on consultation with the San Francisco Department of Parking and Traffic and the 14th/15th Avenue Gate Access Study (Presidio Trust

2003e), that alternatives to signalization, such as turn restrictions on the minor approach(es), would improve the operation of the minor approaches to these intersections.

Alternative 2: Wings Retained / Trust Revised Alternative – Alternative 2 would generate 1,725 daily vehicle trips, or about one-third more than the Requested No Action Alternative, and 60 percent fewer than Alternative 1 due to its emphasis on residential and office uses rather than residential and educational uses. In the AM peak hour, Alternative 2 would generate about half the vehicle trips as Alternative 1 and about 8 percent fewer than the Requested No Action Alternative. In the PM peak hour, Alternative 2 would generate about one-third the vehicle trips as Alternative 1 and about 10 percent less than the Requested No Action Alternative. Alternative 2 would generate about 26 to 68 more vehicle trips in the AM peak hour and 13 to 60 more vehicle trips in the PM peak hour than Alternatives 3 and 4.

Despite the variation in vehicle trips generated at the site, the levels of traffic congestion that would be experienced at study intersections in the future would be similar under Alternative 2 and Alternatives 1, 3, and 4, although delays would vary somewhat as shown in Tables 13 and 14. The similarity in congestion levels is due to the capacity of the street network, and the relative number of vehicle trips that would be generated at the site when compared to the growth in traffic volumes that is projected to occur whether or not the project site is occupied. Specifically, under Alternative 2, as with Alternatives 3 and 4:

- Six of the eight study intersections would operate at LOS D or better in both the AM and PM peak hours.
- The minor approaches to the two-way stop-controlled intersections of Lake Street/14th Avenue and California Street/14th Avenue would operate at LOS F in the AM and PM peak hours. Turn restrictions at these intersections could reduce delays to an acceptable level, as described for the Requested No Action Alternative and Alternative 1 above.

At the Lake Street/14th Avenue intersection, traffic associated with Alternative 2 (including the one-way couplet at the 14th and 15th Avenue Gates) would comprise 47 percent of the cumulative growth in the AM peak hour volume between 2005 and 2025. In the PM peak hour, Alternative 2 (including the couplet) would comprise 36 percent of the cumulative growth in the PM peak hour intersection volume between 2005 and 2025. Alternative 2 would have a cumulatively significant effect on this intersection in both peak hours.

At the California Street/14th Avenue intersection, traffic associated with Alternative 2 (including the one-way couplet at the 14th and 15th Avenue Gates) would comprise 20 percent of the cumulative growth in the AM peak hour volume between 2005 and 2025. In the PM peak hour, Alternative 2 (including the couplet) would comprise 13 percent of the cumulative growth in the PM peak hour intersection volume between 2005 and 2025. Alternative 2 would have a cumulatively significant effect on this intersection in both peak hours.

- With the Park Presidio Boulevard Access Variant, the same intersections would operate at an unacceptable level of service in the AM and PM peak hours as without the direct access, although the

level of service at the Lake Street/14th Avenue intersection would improve from LOS F to LOS E in the AM peak hour.

With the variant, at the Lake Street/14th Avenue intersection, traffic associated with Alternative 2 (including the one-way inbound configuration at the 14th Avenue Gate associated with the variant) would comprise 20 percent and 5 percent of the cumulative growth in the AM peak hour and PM peak hour volume between 2005 and 2025, respectively. The intersection would not meet the Caltrans peak hour signal warrant with the variant, and therefore Alternative 2 with the variant would have a less-than-significant cumulative effect on the intersection of Lake Street/14th Avenue.

With the variant, at the California Street/14th Avenue intersection, traffic associated with Alternative 2 (including the one-way inbound configuration at the 14th Avenue Gate associated with the variant) would comprise 18 percent and 13 percent of the cumulative growth in the AM peak hour and PM peak hour volume between 2005 and 2025, respectively.

Alternative 2 would differ from the Requested No Action Alternative at the intersection of Lake Street/15th Avenue, where the level of service would be LOS D and C in the AM and PM peak hours, respectively with Alternative 2, rather than LOS E (in the AM) and D (in the PM) under the Requested No Action Alternative, due to opening the 14th Avenue Gate in Alternative 2. At other intersections, drivers might experience somewhat more or less delay with Alternative 2 than with the Requested No Action Alternative, but not such that any other intersection's level of service would go from acceptable to unacceptable conditions or vice versa.

Alternative 3: Wings Removed Alternative – Alternative 3 would generate 1,542 daily vehicle trips, or 19 percent more than the Requested No Action Alternative, 11 percent fewer than Alternative 2, and 64 percent fewer than Alternative 1. In the AM peak hour, Alternative 3 would generate 161 vehicle trips, or 21 percent fewer than the Requested No Action Alternative, 14 percent fewer than Alternative 2, and 57 percent fewer than Alternative 1. In the PM peak hour, Alternative 3 is expected to generate 189 vehicle trips, or 16 percent fewer than the Requested No Action Alternative, 6 percent fewer than Alternative 2, and 70 percent fewer than Alternative 1. Alternative 3 would generate about 40 more vehicle trips in the AM peak hour than Alternative 4, and about 50 more in the PM peak hour.

Despite the variation in vehicle trips generated at the site, the levels of traffic congestion that would be experienced at study intersections in the future would be similar under Alternative 3 and Alternatives 2 and 4. This is due to the capacity of the street network, and the relative number of vehicle trips that would be generated at the site when compared to the increase in traffic volume that is projected to occur whether or not the project site is occupied. Specifically, under Alternative 3, as with Alternatives 2 and 4:

- Six of the eight study intersections would operate at LOS D or better in both the AM and PM peak hours.
- The minor approaches to the two-way stop-controlled intersections of Lake Street/14th Avenue and California Street/14th Avenue would operate at LOS F in the AM and PM peak hours. Turn

restrictions at these intersections could reduce delays to an acceptable level, as described for the Requested No Action Alternative and Alternatives 1 and 2 above.

At the Lake Street/14th Avenue intersection, traffic associated with Alternative 3 (including the one-way couplet at the 14th and 15th Avenue Gates) would comprise 44 percent of the cumulative growth in the AM peak hour volume between 2005 and 2025. In the PM peak hour, Alternative 3 (including the couplet) would comprise 35 percent of the cumulative growth in the PM peak hour intersection volume between 2005 and 2025. The cumulative effect with Alternative 3 would be less than significant in the AM peak hour and significant in the PM peak hour.

At the California Street/14th Avenue intersection, traffic associated with Alternative 3 (including the one-way couplet at the 14th and 15th Avenue Gates) would comprise 17 percent of the cumulative growth in the AM peak hour volume between 2005 and 2025. In the PM peak hour, Alternative 3 (including the couplet) would comprise 14 percent of the cumulative growth in the PM peak hour intersection volume between 2005 and 2025. The cumulative effect with Alternative 3 would be significant in both peak hours.

- With the Park Presidio Boulevard Access Variant, the same intersections would operate at an unacceptable level of service in the AM and PM peak hours as without the direct access, although the level of service at the Lake Street/14th Avenue intersection would improve from LOS F to LOS E in the AM peak hour.

With the variant, at the Lake Street/14th Avenue intersection, traffic associated with Alternative 3 (including the one-way inbound configuration at the 14th Avenue Gate associated with the variant) would comprise 16 percent and 4 percent of the cumulative growth in the AM peak hour and PM peak hour volume between 2005 and 2025, respectively. Alternative 3 with the variant would have a less-than-significant cumulative effect on PM peak hour operating conditions.

With the variant, at the California Street/14th Avenue intersection, traffic associated with Alternative 3 (including the one-way inbound configuration at the 14th Avenue Gate associated with the variant) would comprise 18 percent and 13 percent of the cumulative growth in the AM peak hour and PM peak hour volume between 2005 and 2025, respectively.

Similar to Alternatives 2 and 4, Alternative 3 would differ from the Requested No Action Alternative at the intersection of Lake Street/15th Avenue, where the level of service would be LOS D and C in the AM and PM peak hours, respectively rather than LOS E (in the AM) and D (in the PM) under the Requested No Action Alternative, due to opening the 14th Avenue Gate. The forecasted levels of service with Alternative 3 would be the same as with Alternative 2 in both the AM and PM peak hours, with or without the variant.

Alternative 4: Battery Caulfield Alternative – Alternative 4 would generate the least vehicle trips on a daily basis as well as during the AM and PM peak hours due to its inclusion of senior housing, which generates fewer trips compared to other residential uses. Alternative 4 is expected to generate 1,295 daily

vehicle trips, about the same as the Requested No Action Alternative, 70 percent fewer than Alternative 1, 25 percent fewer than Alternative 2, and 16 percent fewer than Alternative 3. In the AM peak hour, Alternative 4 would generate 119 vehicle trips, or 41 percent fewer than the Requested No Action Alternative, 68 percent fewer than Alternative 1, 36 percent fewer than Alternative 2, and 26 percent fewer than Alternative 3. In the PM peak hour, Alternative 4 is expected to generate 142 vehicle trips, or 37 percent fewer than the Requested No Action Alternative, 77 percent fewer than Alternative 1, 30 percent fewer than Alternative 2, and 25 percent fewer than Alternative 3.

Despite the variation in vehicle trips generated at the site, the levels of traffic congestion that would be experienced at study intersections in the future would be similar under Alternative 4 and Alternatives 2 and 3. This is due to the capacity of the street network, and the relative number of vehicle trips that would be generated at the site when compared to the increase in traffic volume that is projected to occur whether or not the project site is occupied. Specifically, under Alternative 4, as with Alternatives 2 and 3:

- Six of the eight study intersections would operate at LOS D or better in both the AM and PM peak hours.
- The minor approaches to the two-way stop-controlled intersections of Lake Street/14th Avenue and California Street/14th Avenue would operate at LOS F in the AM and PM peak hours. Turn restrictions at these intersections could reduce delays to an acceptable level, as described for the Requested No Action Alternative above.

At the Lake Street/14th Avenue intersection, traffic associated with Alternative 4 (including the one-way couplet at the 14th and 15th Avenue Gates) would comprise 39 percent of the cumulative growth in the AM peak hour volume between 2005 and 2025. In the PM peak hour, Alternative 4 (including the couplet) would comprise 30 percent of the cumulative growth in the PM peak hour intersection volume between 2005 and 2025. Alternative 4 would have a less-than-significant cumulative effect on the Lake Street/14th Avenue intersection in both peak hours.

At the California Street/14th Avenue intersection, traffic associated with Alternative 4 (including the one-way couplet at the 14th and 15th Avenue Gates) would comprise 16 percent of the cumulative growth in the AM peak hour volume between 2005 and 2025. In the PM peak hour, Alternative 4 (including the couplet) would comprise 12 percent of the cumulative growth in the PM peak hour intersection volume between 2005 and 2025. Alternative 4 would have a significant cumulative effect on the California Street/14th Avenue intersection in both peak hours.

- With the Park Presidio Boulevard Access Variant, the same intersections would operate at an unacceptable level of service in the AM and PM peak hours as without the direct access, although the level of service at the Lake Street/14th Avenue intersection would improve from LOS F to LOS E in the AM peak hour.

With the variant, at the Lake Street/14th Avenue intersection, traffic associated with Alternative 4 (including the one-way inbound configuration at the 14th Avenue Gate associated with the variant) would comprise 13 percent and 1 percent of the cumulative growth in the AM peak hour and PM peak hour volume between 2005 and 2025, respectively.

With the variant, at the California Street/14th Avenue intersection, traffic associated with Alternative 4 (including the one-way inbound configuration at the 14th Avenue Gate associated with the variant) would comprise 16 percent and 12 percent of the cumulative growth in the AM peak hour and PM peak hour volume between 2005 and 2025, respectively.

Similar to Alternatives 2 and 3, Alternative 4 would differ from the Requested No Action Alternative at the intersection of Lake Street/15th Avenue, where the level of service would be LOS D and C in the AM and PM peak hours, respectively with Alternative 4, rather than LOS E (in the AM) and D (in the PM) under the Requested No Action Alternative, due to opening the 14th Avenue Gate. At other intersections, drivers might experience somewhat less delay with Alternative 4 than with the other alternatives, but not such that any other intersection's level of service would go from acceptable to unacceptable conditions or vice versa. The levels of service with Alternative 4 would be the same as with Alternatives 2 and 3 in both the AM and PM peak hours with the couplet. With the variant, levels of service with Alternative 4 would be the same as with Alternatives 2 and 3 at all but one intersection: the Lake Street/Park Presidio Boulevard intersection, which would operate at LOS B in the AM peak hour compared to LOS C with Alternatives 2 and 3.

3.2.2.3 Gate Volumes and Cut-Through Traffic

While the absolute number of daily vehicle trips associated with each alternative would not be of a magnitude that would substantially affect the levels of congestion expected at area intersections in the future, there would be some variation in traffic operations and in the volume of traffic traveling into and out of the Presidio.

Table 15 shows anticipated peak hour traffic volumes through the 14th and 15th Avenue Gates for each of the alternatives, with and without the Park Presidio Boulevard Access Variant. In every alternative, including the Requested No Action Alternative, the volume of traffic is projected to increase when compared to the volume counted at the 15th Avenue Gate in October 2005. Comparing data collected at the intersection of 15th Avenue and Wedemeyer Street in January 2005 to October 2005 turning movement volumes suggests that approximately 40 to 60 percent of the AM peak hour traffic and 60 to 90 percent of the PM peak hour traffic passing through the 15th Avenue Gate is currently traveling to/from areas other than the PHS district. Some percentage of this traffic was cutting through the Presidio entirely, traveling between the Golden Gate Bridge and the Richmond district.

Gate volumes are expected to increase in the future due to changes within the Presidio and in the surrounding neighborhood, including increased population and employment and increased congestion on Park Presidio Boulevard. In all alternatives, the roadway network and circulation system within the

Table 15. Comparison of Future (2025) Peak Hour Traffic Volumes^a through 14th/15th Avenue Gates

ALTERNATIVE	ONE-WAY COUPLET AT 14 TH & 15 TH AVE. GATES				VARIANT: NEW PARK PRESIDIO BLVD. ACCESS WITH INBOUND ONLY TRAFFIC AT 14 TH AND 15 TH AVE. GATES			
	TOTAL VEHICLE TRIPS		VEHICLE TRIPS NOT GENERATED BY PROJECT		TOTAL VEHICLE TRIPS		VEHICLE TRIPS NOT GENERATED BY PROJECT	
	AM PEAK HOUR	PM PEAK HOUR	AM PEAK HOUR	PM PEAK HOUR	AM PEAK HOUR	PM PEAK HOUR	AM PEAK HOUR	PM PEAK HOUR
Existing Conditions (2005)	130	133	59-80 ^a	83-120 ^a	130	133	59-80 ^a	83-120 ^a
Future Conditions (2025)								
Requested No Action Alternative	310	330	160	170	NA	NA	NA	NA
Alternative 1	420	590	160	170	200	220	100	100
Alternative 2	300	310	160	170	140	140	100	100
Alternative 3	280	310	160	170	130	140	100	100
Alternative 4	250	270	160	170	120	130	100	100

Source: Wilbur Smith Associates 2006c.

Notes:

^a Traffic counts gathered at the intersection of 15th Avenue/Wedemeyer Street on January 12, 2005 indicated that 59 vehicles in the AM peak hour and 83 vehicles in the PM peak hour traveling through the 15th Avenue Gate were not destined for the lower plateau of the PHSB district. Turning movement counts gathered at the Lake Street/15th Avenue intersection in October 2005, however, suggested that non-PHSB-generated traffic volumes through the gate could be as high as 80 vehicles in the AM peak hour and 120 vehicles in the PM peak hour.

NA = not applicable

PHSB district would be designed to discourage cut-through traffic while retaining Battery Caulfield Road for secondary access, and traffic calming techniques would be used to slow traffic as it passes through the district. However, for the purposes of providing a conservative traffic analysis in this SEIS, the effect of these traffic calming measures is assumed to be somewhat modest. Nevertheless, the vehicle trips not generated by the PHSB project and forecast to travel through the 14th and 15th Avenue Gates in Table 15 have been reduced somewhat from the volume assumed to travel through these gates in the PTMP EIS to reflect the traffic calming measures and roadway circulation patterns that will be used to discourage through traffic at the site. With the one-way couplet configuration at the 14th and 15th Avenue Gates, through traffic would comprise 38 to 64 percent of the AM peak hour traffic and 29 to 63 percent of the PM peak hour traffic through the gates, depending on the alternative. With the Park Presidio Boulevard Access Variant, through traffic would comprise 50 to 83 percent of the AM peak hour traffic and 45 to 77

percent of the PM peak hour traffic through the gates, depending on the alternative. For project-generated traffic, the analysis assumes approximately 75 percent of the external vehicle trips generated by the PHS district would travel through the 14th/15th Avenue Gates (and the Park Presidio Boulevard intersection with the variant); the remaining 25 percent would be distributed to gates at the Golden Gate Bridge, Lombard Street, Gorgas Avenue/Richardson Avenue, and Marina Boulevard.

Future increases in traffic volumes through the 14th and 15th Avenue Gates would be noticeable to immediately adjacent residents of the surrounding neighborhood and park visitors most familiar with the area. However, the differences in traffic volumes at the gates would not cause major differences in delay and level of service at nearby intersections. For example, the intersection of Lake Street/15th Avenue would operate at the same level of service in both the AM and PM peak hours with Alternatives 2, 3, and 4.

Requested No Action Alternative – Under the Requested No Action Alternative, traffic traveling through the 15th Avenue Gate would consist of motorists traveling to and from Arion Press, Lone Mountain Children’s Center, and the limited number of other buildings on the eastern portion of the site, as well as motorists passing through the PHS district to other parts of the Presidio or the Golden Gate Bridge. In 2025, 310 and 330 vehicles per hour are expected to travel through the 15th Avenue Gate in the AM and PM peak hours, respectively. The expected future PM peak hour volume of 330 vehicles per hour is about 2.5 times the 133 vehicles per hour observed in October 2005. This difference is primarily related to the conservative assumption in the analysis that most of the afternoon educational trips would occur in the PM peak hour as parents pick their children up from day care. This is a conservative or “worst case” assumption; based on an observation in October 2002, some passenger pick-ups occurred earlier in the afternoon, and passenger pick-ups were generally distributed throughout the afternoon rather than being concentrated in the PM peak hour.

Alternative 1: PTMP Alternative – Alternative 1 is expected to result in approximately 420 and 590 vehicles per hour traveling through the 14th and 15th Avenue Gates in the AM and PM peak hours, respectively. The expected future volumes through the gates under Alternative 1 is approximately 35 percent more than under the Requested No Action Alternative in the AM peak hour and 79 percent more than under the Requested No Action Alternative in the PM peak hour. A PM peak hour volume of 590 vehicles is also more than four times the PM peak hour volume of 133 vehicles per hour observed in October 2005.

With the Park Presidio Boulevard Access Variant, Alternative 1 would result in about 52 percent and 63 percent less traffic through the 14th and 15th Avenue Gates during the AM and PM peak hours, respectively, compared to Alternative 1 with the couplet. Compared to the Requested No Action Alternative, Alternative 1 with the variant would result in approximately one-third less traffic through the 14th and 15th Avenue Gates in the AM and PM peak hours, respectively.

Alternative 2: Wings Retained / Trust Revised Alternative – Compared to the Requested No Action Alternative, Alternative 2 would result in slightly fewer peak hour vehicle trips through the 14th and 15th Avenue Gates in both the AM peak hour and PM peak hours. Compared to Alternative 1, Alternative 2

would result in about 29 percent fewer vehicle trips through the 14th and 15th Avenue Gates in the AM peak hour and about 47 percent fewer PM peak hour vehicle trips through the gates in the PM peak hour. Lower traffic volumes through the 14th and 15th Avenue Gates would result in less traffic on nearby residential neighborhood streets than in Alternative 1.

With the Park Presidio Boulevard Access Variant, Alternative 2 would result in less than half the volume of traffic through the 14th and 15th Avenue Gates during both the AM and PM peak hours compared to Alternative 2 with the couplet.

Alternative 3: Wings Removed Alternative – When compared to the Requested No Action Alternative, Alternative 3 would result in 10 and 6 percent fewer vehicle trips through the 14th and 15th Avenue Gates during both the AM and PM peak hours, respectively. When compared to Alternative 1 and Alternative 2, Alternative 3 would result in 33 and 7 percent fewer trips through the 14th and 15th Avenue Gates in the AM peak hour and 47 percent fewer and the same in the PM peak hour. Less traffic through the 14th and 15th Avenue Gates would result in less traffic on nearby residential neighborhood streets than in Alternative 1.

With the Park Presidio Boulevard Access Variant, Alternative 3 would result in less than half the amount of traffic through the 14th and 15th Avenue Gates during the AM and PM peak hours, respectively, as Alternative 3 with the couplet.

Alternative 4: Battery Caulfield Alternative – Due to its emphasis on residential use and inclusion of senior housing, Alternative 4 would generate 18 to 19 percent fewer vehicle trips through the 14th and 15th Avenue Gates in the AM and PM peak hours than the Requested No Action Alternative. Alternative 4 would also generate 11 to 54 percent fewer trips through the gates than Alternatives 1, 2, and 3. Less traffic through the 14th and 15th Avenue Gates would result in less traffic on nearby residential neighborhood streets than in Alternatives 1, 2 and 3.

With the Park Presidio Boulevard Access Variant, Alternative 4 would result in roughly half the amount of traffic through the 14th and 15th Avenue Gates during the AM and PM peak hours, respectively, as Alternative 4 with the couplet.

3.2.2.4 Safety Considerations

Residents in the neighborhood adjacent to the PHSB have expressed concerns about potential increases in conflicts between traffic and pedestrians and bicyclists. The intersections of Lake Street/Park Presidio Boulevard and California Street/Park Presidio Boulevard are often specifically mentioned as concerns due to past traffic accidents, including some involving pedestrians and bicyclists.²²

Traffic volumes at the intersections of Lake Street/Park Presidio Boulevard and California Street/Park Presidio Boulevard are projected to increase in the future, whether or not the proposed action or any other

²² The Trust obtained five years of accident data from the Statewide Integrated Traffic Records System (SWITRS) through the San Francisco Department of Parking and Traffic in conjunction with studying the Park Presidio Boulevard Access Variant. These data are available for review at the Presidio Trust Library, 34 Graham Street.

changes occur in the PHSB district. The PHSB alternatives are expected to contribute two percent or less to the overall 2025 traffic volumes at these intersections, and this small amount of traffic would not measurably affect the safety of these intersections.

In general, pedestrian safety is not only a function of the volume of vehicular traffic on the street, but also the adequacy of pedestrian facilities in separating pedestrian traffic from vehicular traffic. The areas of the Richmond district that would experience the most project-generated traffic are 14th and 15th Avenues north of Lake Street. Both of these streets have sidewalks and street trees that separate the sidewalks from the roadway. These streets also have on-street parking, which is also considered an element of the streetscape that buffers pedestrians from traffic. The sidewalks on these streets provide access to the PHSB district, and implementation of the Presidio Trails and Bikeways Master Plan in the PHSB district will provide a safe and continuous network of paths and bikeways that offer access to the rest of the Presidio, as well as Mountain Lake Park. For instance, connecting the proposed pedestrian trail and bikeway on the west side of PHSB district to Park Boulevard on the east side of the PHSB district with a multi-use trail around the southern edge of the district will provide a safe, continuous route to Mountain Lake that is grade-separated from Highway 1 and avoids conflicts with vehicular traffic on city streets.

With implementation of the Park Presidio Boulevard Access Variant, the Lake Street intersection would no longer be the first intersection encountered by southbound traffic on Highway 1; this would likely improve the perceived pedestrian and bicycle safety at the intersection of Lake Street/Park Presidio Boulevard, as the new intersection on Park Presidio Boulevard would serve as a transition between highway conditions and City street conditions. Pedestrians and bicyclists would be prohibited from using the new intersection, but would be directed to the multi-use trail that is grade-separated from Highway 1, or to Lake Street, which is a City-designated bike route.

Without widening Highway 1, the variant could negatively affect stopping sight distance for southbound motorists approaching the variant intersection, and this reduced stopping sight distance could increase the probability of rear-end collisions. The intersection would also incrementally increase delays for traffic on Highway 1, although the expected increase in delay would be relatively minor.

3.2.2.5 Transit

Land uses associated with the PHSB alternatives would generate transit trips for several Bay Area transit providers, and would most affect the three transit providers that directly serve the project site: MUNI, Golden Gate Transit (GGT), and the Presidio's internal shuttle (PresidiGo). Transit trips to and from the project site were estimated based on the expected mode split discussed in Section 3.2.2.1, Travel Demand, and then assigned to transit routes based on the geographic distribution of origins and destinations.

Because some transit passengers may use more than one transit mode (e.g., transfer from Golden Gate Transit to PresidiGo), the sum of transit trips for each transit provider may exceed the total number of transit passengers generated by each alternative. Table 16 summarizes the expected AM peak hour and PM peak hour transit trips to and from the project site by transit service provider for each alternative. More detailed transit ridership estimates are available in Appendix B.

Table 16. Future (2025) Peak Hour Transit Trips to/from Project Site by Service Provider and Alternative

TIME PERIOD & SERVICE PROVIDER	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 4
AM Peak Hour					
MUNI	35	90	50	42	29
Golden Gate Transit	4	10	5	4	3
PresidiGo	14	44	18	14	11
PM Peak Hour					
MUNI	38	169	55	49	35
Golden Gate Transit	4	18	6	5	4
PresidiGo	15	78	20	17	14

Source: Wilbur Smith Associates 2006.

Requested No Action Alternative – The Requested No Action Alternative would generate 265 daily transit trips, including 41 AM peak hour transit trips and 45 PM peak hour transit trips. If MUNI does not provide additional capacity for Routes 1, 1AX, and 1BX on California Street by 2025, the cumulative ridership due to regional growth trends and implementation of the PTMP could exceed capacity on one or more of these three routes in the inbound (toward downtown) direction in the AM peak hour. However, the Presidio as a whole is expected to contribute only two percent or less to the total projected 2025 ridership on these routes. In the PM peak hour, cumulative ridership on MUNI Route 28 could exceed capacity if additional capacity is not added to this route. In the southbound direction, projected ridership on MUNI Route 28 is expected to exceed capacity without ridership generated by the Presidio. The maximum load point for MUNI Route 28 occurs south of Golden Gate Park, and many passengers traveling to and from the Presidio are expected to board or alight the bus at a considerable distance from the maximum load point.

GGT Route 10 is the Golden Gate Transit route that directly serves the project site. With the trips generated by the Requested No Action Alternative, ridership on this route in 2025 would be approximately 59 percent of capacity or less depending on the direction of travel and peak hour. This analysis conservatively assumes that all PHSB-generated transit passengers to/from the North Bay would use GGT Route 10. Passengers may choose to use PresidiGo to transfer to other routes at the Golden Gate Bridge Toll Plaza, in which case the impact of these transit passengers would be distributed across several routes.

Mitigation called for in the PTMP EIS, including increased frequency on MUNI lines, PresidiGo service, and monitoring of GGT routes and coordination with GGT, would reduce the effects of the Requested No Action Alternative on transit service.

Alternative 1: PTMP Alternative – Alternative 1 would generate 1,524 daily transit trips, or more than five times that of the Requested No Action Alternative. The alternative would generate 114 transit trips in the AM peak hour, or about 2.5 times that for the Requested No Action Alternative, and 212 transit trips in the PM peak hour, or more than four times that for the Requested No Action Alternative. Similar to the Requested No Action Alternative, if MUNI does not provide additional capacity for Routes 1, 1AX, and 1BX on California Street in the AM peak hour and for Route 28 in the PM peak hour by 2025, the cumulative ridership could exceed capacity. Ridership on GGT Route 10 would be 63 percent of capacity or less, depending on the direction and peak hour. Mitigation called for in the PTMP EIS, including increased frequency on MUNI lines, PresidiGo service, and monitoring of GGT routes, would reduce the effects of Alternative 1 on transit service.

Alternative 2: Wings Retained / Trust Revised Alternative – Alternative 2 would generate 558 daily transit trips, or more than twice that generated by the Requested No Action Alternative but 63 percent fewer than would be generated by Alternative 1. In the AM peak hour, Alternative 2 would generate 58 transit trips, or about 41 percent more than the Requested No Action Alternative but 49 percent fewer than Alternative 1. In the PM peak hour, Alternative 2 would generate 64 transit trips, or about 42 percent more than the Requested No Action Alternative but 70 percent fewer than Alternative 1. Alternative 2 is expected to result in 43 percent and 45 percent more MUNI ridership in 2025 than the Requested No Action Alternative in the AM and PM peak hours, respectively, but about 44 percent and 67 percent less than Alternative 1 in the AM and PM peak hours, respectively. Alternative 2 would result in just slightly higher ridership on GGT than the Requested No Action Alternative. Mitigation called for in the PTMP EIS, including increased frequency on MUNI lines, PresidiGo service, and monitoring of GGT routes, would reduce the effects of Alternative 2 on transit service.

Alternative 3: Wings Removed Alternative – Alternative 3 would generate 484 daily transit trips, or 83 percent more than the Requested No Action Alternative, 68 percent fewer than Alternative 1, and 13 percent fewer than Alternative 2. In the AM peak hour, Alternative 3 would generate 48 transit trips, or 17 percent more than the Requested No Action Alternative, 58 percent fewer than Alternative 1, and 17 percent fewer than Alternative 2. In the PM peak hour, Alternative 3 would generate 57 transit trips, or 27 percent more than the Requested No Action Alternative, 73 percent fewer than Alternative 1, and 11 percent fewer than Alternative 2.

Compared to the Requested No Action Alternative, Alternative 3 is expected to result in 20 percent and 29 percent more MUNI ridership in the AM and PM peak hours, respectively. Alternative 3 would generate 53 and 71 percent less MUNI ridership in the AM and PM peak hours, respectively, than Alternative 1, and 27 to 30 percent less than Alternative 2. Alternative 3 would result in about the same peak hour ridership on GGT as the Requested No Action Alternative, less than half the ridership in Alternative 1, and slightly less ridership than Alternative 2. Mitigation called for in the PTMP EIS,

including increased frequency on MUNI lines, PresidiGo service, and monitoring of GGT routes, would reduce the effects of Alternative 3 on transit service.

Alternative 4: Battery Caulfield Alternative – On a daily basis, Alternative 4 would generate the fewest daily transit trips of all alternatives except the Requested No Action Alternative. Alternative 4 would generate 417 daily transit trips, or 57 percent more than the Requested No Action Alternative, 73 percent fewer than Alternative 1, 25 percent fewer than Alternative 2, and 14 percent fewer than Alternative 3. In the AM peak hour, Alternative 4 would generate the fewest transit trips of all alternatives, including the Requested No Action Alternative. Alternative 4 would generate 34 AM peak hour transit trips, or 17 percent fewer than the Requested No Action Alternative, 70 percent fewer than Alternative 1, 41 percent fewer than Alternative 2, and 29 percent fewer than Alternative 3. Alternative 4 would also generate the fewest transit trips of all alternatives in the PM peak hour. Alternative 4 would generate 42 PM peak hour transit trips, or 7 percent fewer than the Requested No Action Alternative, 80 percent fewer than Alternative 1, 34 percent fewer than Alternative 2, and 26 percent fewer than Alternative 3.

Compared to the Requested No Action Alternative, Alternative 4 is expected to result in 17 percent and 8 percent less MUNI ridership in the AM and PM peak hours, respectively. Alternative 4 would result in 68 and 79 percent less MUNI ridership than Alternative 1, 42 and 36 percent less MUNI ridership than Alternative 2 in the AM and PM peak hours, respectively, and about 30 percent less MUNI ridership than Alternative 3. On GGT in 2020, Alternative 4 is expected to result in slightly less ridership than the Requested No Action Alternative and Alternative 3, much less than Alternative 1, and about 30 to 40 percent less than Alternative 2.

Mitigation called for in the PTMP EIS, including increased frequency on MUNI lines, PresidiGo service, and monitoring of GGT routes, would reduce the effects of Alternative 4 on transit service.

3.2.2.6 Pedestrians and Bicycles

The number of person trips to and from the project site expected to be made by bicycling, walking, or some other mode was calculated assuming the mode split discussed in Section 3.2.2.1, Travel Demand.

All of the alternatives assume improvements to the pedestrian and bicycle circulation network consistent with the Presidio Trails and Bikeways Master Plan (see Figure 11). In the vicinity of the project site, the plan would provide a multi-use path that would extend from Battery Caulfield Road on the west side of the site around the south side of the site to connect with Park Boulevard, which is an existing multi-use path that continues under Highway 1 to the Mountain Lake area. The plan would also provide an uphill bike lane on Wedemeyer Street/Battery Caulfield Road between 15th Avenue and Washington Boulevard, a pedestrian path in the Wedemeyer Street/Battery Caulfield corridor, and pedestrian paths that connect the project site to Lobos Creek and the Baker Beach Apartments.

Requested No Action Alternative – The cultural/educational, office and industrial/warehouse uses associated with the Requested No Action Alternative would generate approximately 179 daily pedestrian or bicycle trips. This expected level of pedestrian and bicycle activity would be accommodated by San

Francisco's network of bike lanes and sidewalks, and by trails and bikeways planned as part of the Presidio Trails and Bikeways Master Plan.

Alternative 1: PTMP Alternative – Alternative 1 would generate 1,483 daily pedestrian or bicycle trips, or about eight times the number generated by the Requested No Action Alternative. Alternative 1 would generate 103 pedestrian or bicycle trips in the AM peak hour, or about 3.5 times more than the Requested No Action Alternative, and 203 pedestrian or bicycle trips in the PM peak hour, about 6.5 times the number expected from the Requested No Action Alternative. The expected level of pedestrian and bicycle activity under Alternative 1 would be accommodated by the San Francisco's bike lanes and sidewalks, and by the bicycle and pedestrian network planned as part of the Presidio Trails and Bikeways Master Plan.

Alternative 2: Wings Retained / Trust Revised Alternative – Alternative 2 would generate 541 daily pedestrian or bicycle trips, or about three times the number generated by the Requested No Action Alternative and 64 percent fewer than Alternative 1. In the AM peak hour, Alternative 2 would generate 56 pedestrian or bicycle trips, or about twice that generated by the Requested No Action Alternative but 46 percent fewer than Alternative 1. In the PM peak hour, Alternative 2 would generate 61 pedestrian or bicycle trips, or about twice that generated by the Requested No Action Alternative but 70 percent fewer than Alternative 1. The expected level of pedestrian and bicycle activity with Alternative 2 could be accommodated by San Francisco's bike lanes and sidewalks, and by the bicycle and pedestrian network planned as part of the Presidio Trails and Bikeways Master Plan.

Alternative 3: Wings Removed Alternative – Alternative 3 would generate 452 daily pedestrian or bicycle trips, or about 2.5 times the number generated by the Requested No Action Alternative, 70 percent fewer than Alternative 1, and 16 percent fewer than Alternative 2. In the AM peak hour, Alternative 3 would generate 43 pedestrian or bicycle trips, or 59 percent more than the Requested No Action Alternative, 58 percent fewer than Alternative 1, and 23 percent fewer than Alternative 2. In the PM peak hour, Alternative 3 would generate 52 pedestrian or bicycle trips, or 73 percent more than the Requested No Action Alternative, about one-quarter of the trips generated by Alternative 1, and 15 percent fewer than Alternative 2. The expected level of pedestrian and bicycle activity with Alternative 3 would be accommodated within San Francisco's bike lanes and sidewalks, and by the bicycle and pedestrian network planned as part of the Presidio Trails and Bikeways Master Plan.

Alternative 4: Battery Caulfield Alternative – Alternative 4 would generate 404 daily pedestrian or bicycle trips, or more than twice the number generated by the Requested No Action Alternative, 73 percent fewer than Alternative 1, 25 percent fewer than Alternative 2, and 11 percent fewer than Alternative 3. In the AM peak hour, Alternative 4 would generate 31 pedestrian or bicycle trips, or slightly more than the Requested No Action Alternative, 70 percent fewer than Alternative 1, 45 percent fewer than Alternative 2, and 28 percent fewer than Alternative 3. In the PM peak hour, Alternative 4 would generate 38 pedestrian or bicycle trips, or 27 percent more than the Requested No Action Alternative, 81 percent fewer than Alternative 1, 38 percent fewer than Alternative 2, and 27 percent fewer than Alternative 3. The expected level of pedestrian and bicycle activity with Alternative 4 would

be accommodated within San Francisco's bike lanes and sidewalks, and by the bicycle and pedestrian network planned as part of the Presidio Trails and Bikeways Master Plan.

Park Presidio Boulevard Access Variant – In combination with Alternatives 1, 2, 3, or 4, the proposed access to Park Presidio Boulevard would likely improve the perception of pedestrian and bicycle safety when compared to existing conditions. The intersection north of the intersection of Lake Street/Park Presidio Boulevard (where no bicycle or pedestrian access would be allowed) would serve as a transition point between the highway and the City street network and the crosswalk and designated bicycle route on Lake Street.

3.2.2.7 Parking

The average parking demand generated by the five land use alternatives has been estimated for the midday weekday, evening, and weekend conditions, based on the methodology used in the PTMP EIS. Parking demand consists of both long-term demand (i.e., employee and resident parking) and short-term demand (i.e., visitor parking). Consistent with the methodology outlined in the San Francisco Planning Department's Transportation Impact Analysis Guidelines (CCSF 2002b), long-term parking for non-residential land uses was estimated by determining the number of employees for each land use and applying the average mode split and vehicle occupancy from the trip generation estimates for both external and internal trips. Each employee vehicle trip was assumed to require one space per day. A long-term rate of 1.13 to 1.32 spaces per dwelling unit was used for standard dwelling units (depending on the mix of unit types/sizes for each alternative), based on rates from the San Francisco Planning Department's Transportation Impact Analysis Guidelines and the Institute of Transportation Engineers' Parking Generation Manual, Second Edition. A rate of 0.27 space per dwelling unit was used for all senior housing, based on the Institute of Transportation Engineers' Parking Generation Manual, Second Edition.

Like the methodology used for long-term parking, the methodology for estimating short-term parking demand is also consistent with the methodology outlined in the San Francisco Planning Department's Transportation Impact Analysis Guidelines. Short-term parking was estimated based on the total daily visitor trips and the average turnover rate. Consistent with the assumptions used in the PTMP EIS, a short-term parking turnover rate of six vehicles per space per day was applied to industrial/warehousing and office uses, ten vehicles per space per day was used for cultural/educational uses, and three vehicles per space per day was used for conference uses. Table 17 presents the estimated weekday midday, evening, and weekend parking demand for all alternatives. Detailed parking demand calculations by alternative are provided in Appendix B.

Table 17 provides a comparison of peak period parking demand to parking supply for each alternative. Other than the Requested No Action Alternative, Alternative 4 would generate the lowest overall parking demand because of the senior housing component, which would generate relatively low parking demand compared to other uses. On the lower plateau, peak period parking demand for Alternative 1 would be about four times that for the Requested No Action Alternative, peak period demand for Alternatives 2 and 3 would be more than 2.5 times that for the Requested No Action Alternative, and the peak period

Table 17. Parking Demand (Spaces) by Time of Day and Alternative

TIME PERIOD	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 4
Upper Plateau					
Weekday Midday	22	32	11	18	51
Weekday Evening	1	8	19	1	102
Weekend	2	11	19	2	102
Peak Period Demand	22	32	19	18	102
Proposed Supply	30	32	21	18	107
Surplus / (Deficit)	8	0	2	0	5
Lower Plateau					
Weekday Midday	111	399	275	177	90
Weekday Evening	58	403	299	294	113
Weekend	79	480	308	300	123
Peak Period Demand	111	480	308	300	123
Proposed Supply	246	505	431	312	160
Surplus / (Deficit)	135	25	123	12	37

Source: Wilbur Smith Associates & Presidio Trust, 2006.

demand for Alternative 4 would be about the same as that for the Requested No Action Alternative. On the upper plateau, the peak period parking demand for Alternative 1 would be about ten spaces more than the Requested No Action Alternative, while Alternatives 2 and 3 would have a parking demand similar to the Requested No Action Alternative and the peak period parking demand for Alternative 4 would be about five times that for the Requested No Action Alternative.

Requested No Action Alternative – Under the Requested No Action Alternative, a total of 276 spaces would be provided. The 30 parking spaces on the upper plateau would remain, but the existing 306 parking spaces on the lower plateau would be reduced by approximately 60 spaces due to reconfiguration of the largest parking area following remediation of Landfill 10 (see Section 2.2). Due to the relatively low parking demand associated with the educational and industrial/warehouse uses currently in the PSHH district, the Requested No Action Alternative would generate an estimated parking demand of 133 spaces

on weekdays, consisting of 22 spaces on the upper plateau and 111 spaces on the lower plateau. There would be a large surplus (143 spaces) over demand.

Alternative 1: PTMP Alternative – According to the Final Plan Alternative described in the PTMP, the PHS district was estimated to have a demand of 674 spaces, and therefore was proposed to have a parking supply of 708 spaces. The parking demand calculation assumptions for residential uses in the PTMP EIS were intended to reflect the wide range of types and sizes of dwelling units throughout the Presidio. The parking demand assumptions used for the calculations in the PTMP EIS have been refined for the purposes of this site-specific study, and consequently the overall peak period parking demand for the entire PHS district under Alternative 1 is estimated to be much lower (491 spaces), although the peak period parking demand would occur on weekdays on the upper plateau (32 spaces) and on weekends on the lower plateau (480 spaces). The parking supply of 708 parking spaces called for in the PTMP would far exceed the peak period demand, thus allowing for a reduction in this proposed parking supply to 537 parking spaces, consisting of 32 spaces on the upper plateau and 505 spaces on the lower plateau. (This supply would represent an increase over the 306 spaces currently located on the lower plateau.) Due to full occupancy of the site and the relatively low parking demand associated with the educational uses currently on the project site, the peak period parking demand for Alternative 1 would be more than four times that estimated for the Requested No Action Alternative on the lower plateau.

Alternative 2: Wings Retained /Trust Revised Alternative – There are currently approximately 306 parking spaces on the lower plateau of the project site. Alternative 2 would increase the number of spaces on the lower plateau to 431, but 123 of these spaces would be underground or under buildings, leaving 308 surface parking spaces – a slight increase from the 306 surface parking spaces currently on the lower plateau. There would be 21 spaces provided on the upper plateau.

Alternative 2 is expected to have a peak period demand of 327 spaces, consisting of 308 spaces on the lower plateau and 19 spaces on the upper plateau. The peak period parking demand on the lower plateau for Alternative 2 would be more than 2.5 times that of the Requested No Action Alternative, but about 36 percent less than Alternative 1. The proposed supply of 452 spaces would consist of 431 spaces on the lower plateau and 21 spaces on the upper plateau. This supply would accommodate the estimated demand plus approximately 20 spaces for trailhead parking, and allow additional spaces on the lower plateau for drivers circulating to find parking spaces during peak periods. Because residents would be encouraged to use public transit for commute purposes, many parking spaces used by residents in evening and on weekends would not necessarily be available for office workers in the district during the day. However, the parking supply of 431 spaces on the lower plateau assumes approximately 15 to 20 spaces used by residents in Building 1801 in the evening would be used by office employees during the day.

Alternative 3: Wings Removed Alternative – Alternative 3 is expected to have a peak period demand of 302 spaces. The parking demand on the lower plateau for Alternative 3 would be about 2.5 times that for the Requested No Action Alternative, about 38 percent less than Alternative 1, and about 3 percent less than Alternative 2. The proposed supply of 330 spaces would consist of 18 spaces on the upper plateau and 312 spaces on the lower plateau, and would adequately accommodate the estimated demand with

about 12 additional spaces on the lower plateau for drivers circulating to find parking spaces and trailhead parking.

Alternative 4: Battery Caulfield Alternative – Alternative 4 would generate the least overall parking demand except for the Requested No Action Alternative, with a weekend demand for about 225 spaces, including 102 spaces on the upper plateau and 123 spaces on the lower plateau. The relatively low demand compared to other alternatives is attributable to low parking demand associated with the senior housing component. On the lower plateau, Alternative 4 would generate about the same demand as the Requested No Action Alternative, about one-fourth that of Alternative 1, and about 60 percent less than Alternatives 2 and 3. On the upper plateau, Alternative 4 would generate 3.2 to 5.7 times the demand generated by the other alternatives. The proposed total supply of 267 spaces would accommodate the expected demand, and would allow 5 and 37 additional spaces on the upper and lower plateaus, respectively, for trailhead parking and drivers circulating to find parking spaces.

3.2.2.8 Construction Traffic

Construction activities would include reconstruction and renovation of existing buildings, structural improvements and other seismic work, utility upgrades, and other infrastructure improvements. Construction traffic would include trucks hauling away construction debris and delivering construction materials, as well as traffic created by the construction workers. The volume of daily construction traffic would vary by alternative, depending on the extent of demolition and new construction and the duration of the construction project.

Construction traffic associated with Alternatives 1, 2, 3, or 4 could occur at the same time as remediation activities for Landfill 10 on the west side of the PHS district. Remediation activities are discussed in more detail in Section 2.2.1, and the potential cumulative impacts of truck traffic generated by remediation activities and truck traffic associated with Alternative 1, 2, 3, or 4 are discussed in Section 3.2.2.9.

Table 18 provides a comparison of the construction and demolition characteristics that would determine the amount of construction-related traffic generated by each alternative.

Requested No Action Alternative – Under the Requested No Action Alternative, no additional buildings on the project site would be rehabilitated for occupancy, so there would be no anticipated major demolition or construction activity in the PHS district. The only truck trips to and from the PHS district would be associated with remediation of Landfill 10, and a modest number associated with “mothballing” vacant buildings to protect them from further deterioration.

Alternative 1: PTMP Alternative – There would be no demolition or new construction with Alternative 1. Construction vehicles associated with building rehabilitation would reach the Presidio and project site via several routes, including the Golden Gate Bridge Plaza and the slip ramp from Richardson Avenue. Construction routes through the 14th and 15th Avenue Gates would be minimized.

Table 18. Comparison of Construction and Demolition Activities

	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 4
Maximum demolition (sf)	0	0	32,000	125,000	116,000
Maximum new construction (sf)	0	0	32,000	0	73,000
Underground parking	No	No	Yes	No	No
Average number of daily one-way truck trips	0	6	11-15	9	10
Duration of construction/demolition (months)	NA	20-22	21-23	17	20

Source: Presidio Trust 2006.

NA = not applicable

sf = square feet

Construction-related traffic, especially larger construction vehicles, could create some conflicts with local and regional traffic. However, because construction vehicles traveling to and from the project site would use various gates to enter/exit the Presidio and would be dispersed throughout the Bay Area, the vehicle trips on regional roadways would generally fall within the normal fluctuations in traffic volume. A Construction Traffic Management Plan would be developed to provide specific routes and other measures to minimize potential traffic impacts, particularly for the residential Lake Street neighborhood immediately south of the project site.

Alternative 2: Wings Retained /Trust Revised Alternative – Alternative 2 would result in a maximum of 32,000 gross square feet of demolition and no more than 32,000 gross square feet of new construction. Because Alternative 2 would involve demolition and new construction and underground parking, Alternative 2 would also result in more construction-related traffic to and from the site than Alternative 1. Construction traffic related to excavation for and construction of underground parking would account for about 40 to 50 percent of the estimated truck trips associated with Alternative 2. Overall, Alternative 2 is expected to generate two to three times the number of construction truck trips to and from the project site than Alternative 1, corresponding to an average of 11 to 15 one-way truck trips per day compared to the estimated six one-way truck trips expected under Alternative 1. Although Alternative 2 would generate considerably more construction-related traffic than Alternative 1, this traffic could be controlled through a Construction Traffic Management Plan, which would specify routes and other measures to minimize potential traffic impacts, particularly for the residential Lake Street neighborhood immediately south of the project site.

Alternative 3: Wings Removed Alternative – Alternative 3 would result in 125,000 gross square feet of demolition and no new construction. Alternative 3 would involve substantially more demolition than Alternative 1, resulting in more truck trips to and from the site than with Alternative 1. Because Alternative 3 would not include underground parking, it would generate fewer truck trips than Alternative 2. Overall, Alternative 3 would generate approximately 4,200 one-way truck trips, or about 62 percent more than the 2,600 one-way truck trips expected to be generated by Alternative 1. The construction period would likely be similar to or slightly shorter than that for Alternative 1, and four to six months shorter than that for Alternative 2. Alternative 3 would generate about nine one-way truck trips per day on average, compared to the six one-way truck trips per day expected with Alternative 1 and the 11 to 15 one-way truck trips expected with Alternative 2. The construction-related traffic generated by Alternative 3 could be controlled through a Construction Traffic Management Plan, which would provide specific routes and other measures to minimize potential traffic impacts, particularly for the residential Lake Street neighborhood immediately south of the project site.

Alternative 4: Battery Caulfield Alternative – Alternative 4 would result in approximately 116,000 gross square feet of demolition and no more than 73,000 gross square feet of new construction. Although Alternative 4 would involve demolition and new construction activities and Alternative 1 would not, Alternative 4 would allow less overall building square footage on the project site. During the construction period of approximately 20 months, Alternative 4 would generate about ten one-way truck trips per day on average, compared to the six one-way truck trips expected with Alternative 1, the 11 to 15 expected with Alternative 2, and the nine expected with Alternative 3. This number of truck trips and the traffic that would be generated by construction workers could be controlled through a Construction Traffic Management Plan, which would provide specific routes and other measures to minimize potential traffic impacts, particularly for the residential Lake Street neighborhood immediately south of the project site.

Park Presidio Boulevard Access Variant – Construction of a new intersection on Park Presidio Boulevard north of Lake Street would require site grading, and could involve the import or export of limited quantities of soil and other materials. Construction workers would also travel to and from the site. Associated construction traffic could be controlled through a Construction Traffic Management Plan, which would provide specific routes and other measures to minimize potential traffic impacts on the Presidio and on the residential Lake Street neighborhood immediately south of the project site. Construction activities associated with the variant would require approval from Caltrans. The Trust would follow Caltrans procedures for obtaining an encroachment permit and Caltrans standards regarding lane closures and other construction traffic management strategies to minimize inconveniences to motorists on the state highway.

3.2.2.9 Cumulative Effects

The analysis of year 2025 traffic conditions presented in Section 3.2.2.2 above includes increases in traffic volumes resulting from implementation of the PTMP (including the PHSB district), when combined with traffic volumes associated with the population and employment growth projected to occur in the rest of the Bay Area region. Similarly, the analysis of year 2025 transit ridership presented earlier

includes transit ridership attributable to the PTMP (including the PHSB district) and ridership projected as a result of Bay Area regional population and employment trends. Thus, the above analysis of Alternative 1, the PTMP Alternative, updates the cumulative transportation analysis presented in the PTMP EIS and fully describes the maximum potential cumulative impacts of the proposed action. (Under Alternatives 2, 3, and 4, the PHSB district's contribution to 2025 peak hour traffic volumes on nearby streets would be less than described for Alternative 1.) A summary of conclusions garnered from the above analysis of potential cumulative effects is presented by alternative below, along with information about other potential cumulative transportation-related effects.

Requested No Action Alternative – If traffic associated with the Requested No Action Alternative is combined with traffic anticipated as a result of future increases in employment and population in the region, motorists would experience unacceptable levels of delay, expressed as a degradation in the peak hour level of service (LOS), at a small number of locations when compared to existing conditions. Specifically, as demonstrated by comparing the existing conditions to those with each alternative in 2025 as shown in Tables 13 and 14, the intersections of Lake Street/15th Avenue, Lake Street/14th Avenue, and California Street/14th Avenue would degrade from LOS C or D to LOS E or F in the AM peak hour, and the intersections of Lake Street/14th Avenue and California Street/14th Avenue would degrade from LOS D to F (Lake/14th Avenue) and from LOS E to F (California/14th Avenue) in the PM peak hour.

The degradation of the LOS at the all-way stop-controlled intersection of Lake Street/15th Avenue in the AM peak hour would result from a combination of project-generated traffic, traffic increases associated with trends in population and employment outside the Presidio, and the continued closure of the 14th Avenue Gate. The Requested No Action Alternative is expected to comprise 51 percent of the increase in traffic volume at the intersection of Lake Street/15th Avenue between 2005 and 2025 in the AM peak hour. Operation of the 14th Avenue and 15th Avenue Gates as a couplet as described in the PTMP would improve the operation of this intersection to LOS D or better. Regarding the intersections of 14th Avenue with Lake Street and California Street, the degradation of LOS projected at two-way stop-controlled intersections is not always considered significant, as discussed in Section 3.2.2.2. Feasible mitigation measures are identified in each instance, however, and these could be easily implemented by the CCSF if it deems them warranted.

Transit ridership under the Requested No Action Alternative would contribute about one percent to the cumulative ridership expected on the California Street line (1, 1AX, and 1BX), which would exceed its AM peak hour capacity in the future if MUNI does not increase capacity. Mitigation is identified to address this potentially significant cumulative effect, as well as potential capacity issues identified for the MUNI Route 28.

The analysis has not identified any cumulative impacts related to pedestrians, bicycles, or other transportation issues to which the Requested No Action Alternative would contribute. Also, no demolition or construction would occur, eliminating any potential for contributions to cumulative construction traffic impacts.

Alternative 1: PTMP Alternative – If traffic associated with Alternative 1 (without the Park Presidio Boulevard Access Variant) is combined with traffic anticipated as a result of future increases in employment and population in the region, motorists would experience unacceptable levels of delay, expressed as a degradation in the peak hour level of service (LOS), at a couple of locations when compared to existing conditions. Specifically, as demonstrated by comparing the existing conditions to those with each alternative in 2025 as shown in Tables 13 and 14, the intersections of Lake Street/15th Avenue, Lake Street/14th Avenue, and California Street/14th Avenue would degrade from LOS C or D to LOS E or F in the AM peak hour, and the intersections of Lake Street/14th Avenue and California Street/14th Avenue would degrade from LOS D (Lake Street/14th Avenue) and E (California Street/14th Avenue) to LOS F in the PM peak hour. The significant cumulative effect at the two-way stop-controlled intersection of California Street/14th Avenue would occur whether or not the proposed action is implemented; however, Alternative 1 would contribute considerably (more than 50 percent) to the increase in total traffic volume between 2005 and 2025 at the intersection of Lake Street/14th Avenue in both the AM and PM peak hours.

The degradation of the LOS at the all-way stop-controlled intersection of Lake Street/15th Avenue in the AM peak hour would result from a combination of project-generated traffic and traffic increases associated with trends in population and employment outside the Presidio. However, the intersection would not meet Caltrans peak hour signal warrant with Alternative 1, and consequently the cumulative effect is not considered significant. Alternative 1 is expected to comprise 35 percent of the increase in AM peak hour traffic volumes at the intersection of Lake Street/15th Avenue between 2005 and 2025.

When combined with the Park Presidio Boulevard Access Variant and regional traffic growth, Alternative 1 would result in LOS F conditions at the intersections of Lake Street/14th Avenue and California Street/14th Avenue as with the couplet, but would not result in LOS E conditions in the AM peak hour at the intersection of Lake Street/15th Avenue. The degradation of LOS projected at two-way stop-controlled intersections is not always considered significant, as discussed in Section 3.2.2.2. Feasible mitigation measures are identified in each instance, however, and these could be easily implemented by the CCSF if it deems them warranted.

Transit ridership associated with the entire Presidio including Alternative 1 would comprise 7 and 12 percent of the cumulative ridership expected on MUNI lines serving the PHS district in 2025 in the AM and PM peak hours, respectively. If MUNI does not provide additional peak hour capacity, future ridership on the California Street line (1, 1AX, and 1BX) would exceed its AM peak hour capacity and future ridership on MUNI Route 28 would exceed its capacity in the PM peak hour. Mitigation is identified to address this potentially significant cumulative effect.

The analysis has not identified any cumulative impacts related to pedestrians, bicycles, or other transportation issues to which Alternative 1 would contribute. Also, no demolition or construction would occur, essentially eliminating the potential for significant contributions to cumulative construction traffic impacts.

Alternative 2: Wings Retained /Trust Revised Alternative – If traffic associated with Alternative 2 (without the Park Presidio Boulevard Access Variant) is combined with traffic anticipated as a result of future increases in employment and population in the region, motorists would experience unacceptable levels of delay, expressed as a degradation in the peak hour level of service (LOS) at a couple of locations when compared to existing conditions. Specifically, as demonstrated by comparing the existing conditions to those with each alternative in 2025 as shown in Tables 13 and 14, the intersections of Lake Street/14th Avenue and California Street/14th Avenue would degrade from LOS C or D to LOS F in the AM peak hour, and the intersections of Lake Street/14th Avenue and California Street/14th Avenue would degrade from LOS D (Lake Street/14th Avenue) and E (California Street/14th Avenue) to LOS F in the PM peak hour. Alternative 2 would comprise 47 percent and 36 percent of the growth in AM peak hour and PM peak hour volumes, respectively, at the intersection of Lake Street/14th Avenue between 2005 and 2025. At the intersection of California Street/14th Avenue, Alternative 2 would comprise 20 percent and 13 percent of the growth in AM and PM peak hour volumes, respectively, between 2005 and 2025. These unacceptable levels of service would also occur with the Requested No Action Alternative.

With Alternative 2 and the Park Presidio Boulevard Access Variant, the intersection of Lake Street/14th Avenue would degrade from LOS C to LOS E, and the intersection of California Street/14th Avenue would degrade from LOS D to LOS F in the AM peak hour. In the PM peak hour, the intersections of Lake Street/14th Avenue and California Street/14th Avenue would degrade from LOS D (Lake Street/14th Avenue) and E (California Street/14th Avenue) to LOS F in the PM peak hour.

Feasible mitigation measures for these cumulatively significant effects are identified in each instance, and these could be easily implemented by the CCSF if it deems them warranted.

Transit ridership associated with the entire Presidio including Alternative 2 would comprise six and nine percent of the cumulative ridership expected on MUNI lines serving the PHSB district in 2025 in the AM and PM peak hours, respectively. As under Alternative 1, if MUNI does not increase peak hour capacity, future ridership on the California Street line (1, 1AX, and 1BX) would exceed its AM peak hour capacity and future ridership on MUNI Route 28 would exceed its capacity in the PM peak hour. Mitigation is identified to address this potentially significant cumulative effect.

The analysis has not identified any cumulative impacts related to pedestrians, bicycles, or other transportation issues to which Alternative 2 would contribute.

Cumulative construction-related traffic effects could occur as a result of remediation activities that could occur during construction, demolition, and rehabilitation of the PHSB district. Landfill 10 in the western portion of the PHSB district is scheduled for remediation in 2008 or 2009. Remediation of Landfill 10 is expected to require approximately 10,000 cubic yards of soil to be hauled away from the site. The remediation is expected to take approximately eight weeks, but the off-hauling of soil would only take about two weeks. If remediation of Landfill 10 were to occur at the same time as demolition and construction activities associated with the reuse of the PHSB district buildings, an additional 100 to 200 daily one-way truck trips would be traveling to or from the PHSB district in this two-week period. Similar to the impacts of the construction-related truck trips associated with the PHSB district

alternatives, the potential impacts of the remediation activities would be avoided by identifying specific routes and other measures to minimize potential traffic impacts, particularly for the residential Lake Street neighborhood immediately south of the project site. The Construction Traffic Management Plan for the selected PHS alternative would be closely coordinated with the management strategies for the remediation of Landfill 10 to minimize cumulative impacts.

Alternative 3: Wings Removed Alternative – If traffic associated with Alternative 3 (without the Park Presidio Boulevard Access Variant) is combined with traffic anticipated as a result of future increases in employment and population in the region, motorists would experience unacceptable levels of delay, expressed as a degradation in the peak hour level of service (LOS), at a couple of locations when compared to existing conditions. Specifically, as demonstrated by comparing the existing conditions to those with each alternative in 2025 as shown in Tables 13 and 14, the intersections of Lake Street/14th Avenue and California Street/14th Avenue would degrade from LOS C or D to LOS F in the AM peak hour, and the intersections of Lake Street/14th Avenue and California Street/14th Avenue would degrade from LOS D (Lake Street/14th Avenue) and E (California Street/14th Avenue) to LOS F in the PM peak hour. Alternative 3 would comprise 44 percent and 35 percent of the growth in AM peak hour and PM peak hour volumes, respectively, at the intersection of Lake Street/14th Avenue between 2005 and 2025. At the intersection of California Street/14th Avenue, Alternative 2 would comprise 17 percent and 14 percent of the growth in AM and PM peak hour volumes between 2005 and 2025, respectively. These unacceptable levels of service would also occur with the Requested No Action Alternative.

With Alternative 3 and the Park Presidio Boulevard Access Variant, the intersection of Lake Street/14th Avenue would degrade from LOS C to LOS E, and the intersection of California Street/14th Avenue would degrade from LOS D to LOS F in the AM peak hour. In the PM peak hour, the intersections of Lake Street/14th Avenue and California Street/14th Avenue would degrade from LOS D (Lake Street/14th Avenue) and E (California Street/14th Avenue) to LOS F in the PM peak hour with Alternative 3.

Feasible mitigation measures are identified for these cumulatively significant effects in each instance, and these could be easily implemented by the CCSF if it deems them warranted.

On the MUNI lines serving the PHS district, transit ridership associated with the entire Presidio including Alternative 3 would comprise six and nine percent of the cumulative ridership in 2025 in the AM and PM peak hours, respectively. As under Alternatives 1 and 2, if MUNI does not increase peak hour capacity, future ridership on the California Street line (1, 1AX, and 1BX) would exceed its AM peak hour capacity and future ridership on MUNI Route 28 would exceed its capacity in the PM peak hour. Mitigation is identified to address this potentially significant cumulative effect.

The analysis has not identified any cumulative impacts related to pedestrians, bicycles, or other transportation issues to which Alternative 3 would contribute.

Cumulative construction-related traffic effects could occur as a result of remediation activities that could occur during construction, demolition, and rehabilitation of the PHS district. Landfill 10 in the western portion of the PHS district is scheduled for remediation in 2008 or 2009. Remediation of Landfill 10 is

expected to require approximately 10,000 cubic yards of soil to be hauled away from the site. The remediation is expected to take approximately eight weeks, with off-haul of soil lasting approximately two weeks. If remediation of Landfill 10 were to occur at the same time as demolition and construction activities associated with the reuse of the PHSB district buildings, an additional 100 to 200 daily one-way truck trips would be traveling to or from the PHSB district during this two-week period. Similar to the impacts of the construction-related truck trips associated with the PHSB district alternatives, the potential impacts of the remediation activities would be avoided by identifying specific routes and other measures to minimize potential traffic impacts, particularly for the residential Lake Street neighborhood immediately south of the project site. The Construction Traffic Management Plan for the selected PHSB alternative would be closely coordinated with the management strategy for the remediation of Landfill 10 to minimize cumulative impacts.

Alternative 4: Battery Caulfield Alternative – If traffic associated with Alternative 4 (without the Park Presidio Boulevard Variant) is combined with traffic anticipated as a result of future increases in employment and population in the region, motorists would experience unacceptable levels of delay, expressed as a degradation in the peak hour level of service (LOS), at a couple of locations when compared to existing conditions. Specifically, as demonstrated by comparing the existing conditions to those with each alternative in 2025 as shown in Tables 13 and 14, the intersections of Lake Street/14th Avenue and California Street/14th Avenue would degrade from LOS C or D to LOS F in the AM peak hour, and the intersections of Lake Street/14th Avenue and California Street/14th Avenue would degrade from LOS D (Lake Street/14th Avenue) and E (California Street/14th Avenue) to LOS F in the PM peak hour. Alternative 4 would comprise 39 percent and 30 percent of the growth in AM peak hour and PM peak hour volumes, respectively, at the intersection of Lake Street/14th Avenue between 2005 and 2025. At the intersection of California Street/14th Avenue, Alternative 4 would comprise 16 percent and 12 percent of the growth in AM and PM peak hour volumes, respectively, between 2005 and 2025. These unacceptable levels of service would also occur with the Requested No Action Alternative.

As with Alternatives 2 and 3, with Alternative 4 and the Park Presidio Boulevard Access Variant, the intersection of Lake Street/14th Avenue would degrade from LOS C to LOS E and the intersection of California Street/14th Avenue would degrade from LOS D to LOS F in the AM peak hour. In the PM peak hour, the intersections of Lake Street/14th Avenue and California Street/14th Avenue would degrade from LOS D (Lake Street/14th Avenue) and E (California Street/14th Avenue) to LOS F in the PM peak hour with Alternative 4.

Feasible mitigation measures are identified for the cumulatively significant effects in each instance, and these could be easily implemented by the CCSF if it deems them warranted.

On the MUNI lines serving the PHSB district, transit ridership associated with the entire Presidio including Alternative 4 would comprise five and nine percent of the cumulative ridership in 2025 in the AM and PM peak hours, respectively. As under Alternatives 1, 2, and 3, if MUNI does not increase peak hour capacity, future ridership the California Street line (1, 1AX, and 1BX) would exceed its AM peak hour capacity and future ridership on MUNI Route 28 would exceed its capacity in the PM peak hour. Mitigation is identified to address this potentially significant cumulative effect.

The analysis has not identified any cumulative impacts related to pedestrians, bicycles, or other transportation issues to which Alternative 4 would contribute.

Cumulative construction-related traffic effects could occur as a result of remediation activities that would likely occur during construction, demolition, and rehabilitation of the PHSH district. Landfill 10 in the western portion of the PHSH district is scheduled for remediation in 2008 or 2009. Remediation of Landfill 10 is expected to require approximately 10,000 cubic yards of soil to be hauled away from the site. The remediation is expected to take approximately eight weeks, but the off-hauling of soil would only take approximately two weeks. If remediation of Landfill 10 were to occur at the same time as demolition and construction activities associated with the reuse of the PHSH district buildings, an additional 100 to 200 daily one-way truck trips would be traveling to or from the PHSH district during this two-week period. Similar to the impacts of the construction-related truck trips associated with the PHSH alternatives, the potential impacts of the remediation activities would be avoided by identifying specific routes and other measures to minimize potential traffic impacts, particularly for the residential Lake Street neighborhood immediately south of the project site. The Construction Traffic Management Plan for the selected PHSH alternative would be closely coordinated with the management strategy for the remediation of Landfill 10 to minimize cumulative impacts.

3.2.3 MITIGATION MEASURES

Impacts identified in the preceding section could be mitigated by measures identified below. With the exception of Mitigation Measure TR-26 *Construction Traffic Management Plan* and aspects of Mitigation Measure TR-10/25 and Mitigation Measure TR-27, all measures fall outside the Trust's jurisdiction. Measures affecting two-way stop-controlled intersections should be considered by the CCSF on a case-by-case basis, since impacts at these intersections may not be considered significant (see discussion in Section 3.2.2.2).

The following measures are derived from the PTMP EIS and will apply to all alternatives, with and without direct access to Park Presidio Boulevard, unless indicated otherwise.

TR-11 *Lake Street / 14th Avenue Intersection Improvements (Alternatives 1, 2 and 3 with the couplet and Alternative 1 with the Park Presidio Boulevard Access Variant)* – If desired, prior to the operation of the minor approach(es) of the intersection deteriorating to LOS E or F, implement right-turn-only restrictions for the minor approaches at the two-way stop-controlled intersection of Lake Street/14th Avenue if the Caltrans peak hour signal warrant would be met. Using the forecasted peak hour turning movement volumes, an analysis of the Caltrans peak hour signal warrant indicates that at least one of the necessary parts of the warrant would be met with Alternatives 1, 2 and 3 in either one or both of the peak hours. The Trust would coordinate with the CCSF to determine the contribution of each party to the cost of the improvements.

With the couplet, traffic associated with Alternatives 1, 2, and 3 (the alternatives that would meet at least one part of Caltrans peak hour volume warrant) would comprise 44 to 60 percent of the cumulative

growth in the AM peak hour volume between 2005 and 2025. In the PM peak hour, Alternatives 1, 2, and 3 would comprise 35 to 57 percent of the cumulative growth in the PM peak hour intersection volume between 2005 and 2025. The unacceptable operating conditions are considered a project-specific significant effect with Alternative 1 (with the couplet), as Alternative 1 would comprise the majority of the growth in intersection traffic volume between 2005 and 2025. The effect is considered a significant cumulative effect with Alternatives 2 and 3. With the Park Presidio Boulevard Access Variant, Alternative 1 would comprise 22 percent of the growth in total intersection PM peak hour traffic volume between 2005 and 2025.

TR-15 California Street / 14th Avenue Intersection Improvements – Prior to the operation of the minor approach(es) of the intersection operations deteriorating to LOS E or F, implement right-turn-only restrictions for the minor approaches at the two-way stop-controlled intersection of California Street/14th Avenue if Caltrans signal warrants would be met.²³ Using the forecasted peak hour turning movement volumes, an analysis of the Caltrans peak hour signal warrant indicates that at least one necessary part of the warrant would be met with Alternatives 1, 2, 3, and 4 as well as the Requested No Action Alternative. The Trust would coordinate with the CCSF to determine the contribution of each party to the cost of the improvements.

Traffic associated with the alternatives (all alternatives would meet at least one part of the Caltrans peak hour volume warrant) would comprise 3 (Requested No Action Alternative) to 30 (Alternative 1) percent of the cumulative growth in the AM peak hour volume between 2005 and 2025. In the PM peak hour, alternatives would comprise 4 to 25 percent of the cumulative growth in the PM peak hour intersection volume between 2005 and 2025. Although all alternatives are expected to meet at least one part of the Caltrans peak hour volume warrant in 2025, the warrant would be met with volumes on the southbound approach in all cases, and none of the alternatives are expected to add traffic to the southbound approach of this intersection. Therefore, although the effect is considered to be significant with all alternatives, it is not considered a project-specific effect with any of the alternatives.

TR-22 TDM Program Monitoring – The Trust has agreed to implement a TDM program to reduce automobile usage by all tenants, occupants, and visitors as summarized in Section 2.2.5 (also see Appendix D of the PTMP for a full description). The Trust will monitor implementation and effectiveness of the TDM program on an ongoing basis. If the TDM performance standards as described in the PTMP (Appendix D) are not being reached, the Trust will implement more aggressive TDM strategies or intensify components of the existing TDM program, such as requiring tenant participation in more TDM program elements, or implementing more frequent and/or extensive shuttle service.

TR-10 and TR-25 Transit Service Improvements and Monitoring Program – The Trust currently monitors MUNI operations and passenger loads within the Presidio. Continued monitoring of MUNI service in the

²³ The PTMP EIS proposed installing all-way stop control at this intersection, and if that were not feasible because of queues extending into the adjacent intersection on Park Presidio Boulevard, installing a traffic signal. In a comment letter on the PTMP EIS, the San Francisco Department of Parking and Traffic (DPT) expressed concern about the reasonableness of signalization at this intersection. The alternatives to signalization developed for the intersection of Lake Street/14th Avenue (right-turn-only restrictions) would also likely improve the operation of the minor approaches of the intersection of California Street/14th Avenue.

Presidio, and similar monitoring of GGT service at the Presidio, will indicate any capacity problems. If the monitoring were to reveal insufficient capacity for northbound Presidio-generated passengers during the PM peak hour, the Trust will notify MUNI and/or the GGBHTD of the deficiencies. Transit service providers could then reduce passenger load factors through increased service frequency. The Trust would coordinate with the CCSF Municipal Transportation Agency (MTA) and/or the GGBHTD to determine the contribution of each party to the cost of the improvements.

TR-26 *Construction Traffic Management Plan* – During pre-construction activities, the contractor(s) of individual projects will work with the Trust to develop a Construction Traffic Management Plan. The plan will include information on construction phases and duration, scheduling, proposed haul routes, permit parking, staging area management, visitor safety, detour routes, and pedestrian movements on adjacent routes.

PTMP mitigation measures related to parking supply and the use of the 14th/15th Avenue Gates (TR-23 and TR-11 portion) have been addressed in the definition of the project alternatives and are thus not repeated here. Other intersection improvement measures included in the PTMP EIS fall outside the PHSB district and vicinity, and also are not repeated here. Mitigation Measure TR-9 *Bicycle and Pedestrian Amenities* will be implemented as planned improvements are funded pursuant to the adopted Presidio Trails and Bikeways Master Plan. Mitigation Measure TR-21 *Presidio-wide Parking Management*, which applies to the Crissy Field area, does not apply to the PHSB district, where the Trust and its private development partner will be required to manage parking to address dual goals: to avoid spillover impacts on adjacent neighborhoods and natural or recreation areas, and to discourage excessive auto ownership and auto use by project residents.

The following additional mitigation measure has been identified in the analysis of the PHSB project:

TR-27 *Lake Street / 15th Avenue Intersection Improvements (Requested No Action Alternative Only)* – This all-way stop-controlled intersection is expected to operate at LOS E in the AM peak hour with the Requested No Action Alternative and Alternative 1. Traffic associated with the Requested No Action Alternative and Alternative 1 would comprise 51 and 35 percent of the cumulative growth, respectively, in the AM peak hour volume between 2005 and 2025, when the intersection is expected to operate at LOS E.

For the Requested No Action Alternative, implementation of the one-way couplet assumed in PTMP and under Alternatives 1, 2, 3, and 4 will improve the operation of this intersection to LOS D or better. The Trust would coordinate with the CCSF to determine the contribution of each party to the cost of the improvements.

For Alternative 1, the average intersection delay would improve compared to the Requested No Action Alternative. Additionally, the result of the signal warrant analysis (provided in Transportation Technical Memorandum No. 3) shows that the intersection would not meet the Caltrans peak hour signal warrant with the volumes projected for Alternative 1 in the AM peak hour in 2025. Therefore, the LOS E

operating conditions in the AM peak hour with Alternative 1 are considered a less-than-significant cumulative effect and do not warrant mitigation.

3.3 Historic Resources

3.3.1 AFFECTED ENVIRONMENT

The history and the significant buildings, structures, and landscapes of the Presidio are described on pages 68 to 76 of the PTMP EIS. This description, and the 1993 National Historic Landmark District (NHLD) nomination, are incorporated here by reference, and portions relating to the PSHH district are summarized below. Further information can be found in the draft Planning and Design Guidelines included in Appendix A of the PSHH EA.

3.3.1.1 Presidio NHLD

The entirety of the Presidio, including the PSHH planning district, is listed in the National Register of Historic Places and is designated as a NHLD. In 1993, the NPS completed an update of the original 1962 landmark nomination, confirming the boundaries established in the original nomination form and defining 662 buildings, sites, structures, and objects as contributing to the significance of the NHLD.

For purposes of the NHLD, the Presidio's period of significance was identified as from 1776 to 1945, with themes related to the military, exploration and settlement, Hispanic heritage, and historic archaeology. Building 135 (the Golden Gate Club), dating from 1949, was the only structure from outside the period of significance that contributes to the NHLD as the site of the signing of the U.S. Japan Security Treaty in 1951.

Since the U.S. Army's departure and formation of the Trust, jurisdiction over the Presidio has been divided between the NPS and the Trust. Approximately 40 historic buildings have been demolished since the Army's departure,²⁴ leaving about 430 contributing elements within the Trust's jurisdiction and 622 within the Presidio as a whole.

3.3.1.2 History of the PSHH District

The Marine Hospital Service, a division of the U.S. Treasury, established a hospital at the project site in the 1870s. The original complex consisted of two-story wood frame buildings on the west shore of Mountain Lake, and continued to grow as needs of the hospital expanded. In 1912, the Service was reorganized and renamed the U.S. Public Health Service to reflect its role as the federal guardian of public health. In 1928, plans were completed for a new hospital building. The new building (Building 1801 or the PSHH) opened in 1932 to the west of the original hospital building, which was then removed from service and demolished. Later changes included the construction of Park Presidio Boulevard as an

²⁴ Thirty-seven buildings were demolished by the NPS, fire destroyed Building 1055, and Buildings 633 and 1387 have suffered damage or structural failures resulting in their demolition (or pending demolition) by the Trust.

approach to the Golden Gate Bridge, an expansion of Buildings 1801 and 1802 in the 1950s, and development of a Nike Missile facility at Battery Caulfield north of the PSHH also in the 1950s.

3.3.1.3 Contributing Buildings and Structures within the PSHH District

Contributing buildings and predicted historical archaeological sites within the PSHH district are shown on Figure 12. The buildings include four from the early decades of the 20th century, before the 1870s-era hospital was replaced. Building 1810 and Building 1809, single-family residences on Wyman Avenue, date from 1915 and 1920, respectively. Residential quarters 1806 and 1807 date from between 1920 and 1928, and originally comprised living quarters associated with the 19th century hospital complex. Building 1807 has not been occupied or maintained since the closing of the PSHH complex in 1985 and therefore has significant deterioration.

Eleven buildings on the lower plateau (Buildings 1801, 1802, 1805, 1808, and 1811 through 1815) and the immediately adjacent area (Buildings 1818 and 1819) date from 1930 to 1932, when the site was almost entirely redeveloped. The largest building, Building 1801, was altered in the 1950s adding two projecting wings in front and a connecting one-story loggia and lobby. The 1950s additions obscure most of the 1932 building façade and have been determined ineligible for the National Register (Trust 2004a).

Other contributing buildings in the PSHH district include Buildings 1449, 1450, and 1451, which were Army structures unassociated with the nearby hospital complex. The largest building (Building 1450) was constructed as a radio transmitting station to serve the coastal defense batteries and was later used to support the adjacent missile facility.

The Nike Missile facility itself was constructed in 1953, after an agreement between the U.S. Air Force and the U.S. Army that determined that the Army would be responsible for short-range missiles such as the Nike Ajax and Nike Hercules. The Nike Missile facility at Battery Caulfield is not considered eligible for the National Register (Trust 2004a).

3.3.1.4 Cultural Landscape Features within the PSHH District

Designed landscapes of the PSHH district have been altered substantially over time. However, the site's spatial orientation and topography remain largely unchanged from the NHLD period of significance, as do a number of smaller landscaped open spaces, elements of the circulation system, and some site vegetation. The PSHH dominates the lower plateau and views from the south, with a backdrop of Monterey pines on the slope behind the building.

The formal entry drive and lawn from the 1932 construction period are gone, but open space still defines the front of Building 1801 and a lawn still slopes down from the front of the houses on Wyman Avenue. A "Central Green" lies between the houses and Buildings 1806 and 1807, although the structure that once formed its northern edge no longer exists. Remains of a terraced garden include the foundations of a pair of small green houses and step up the slope behind the Central Green. Tree stands also remain near the 15th Avenue Gate, behind Building 1801, and along the Presidio Golf Course boundary.

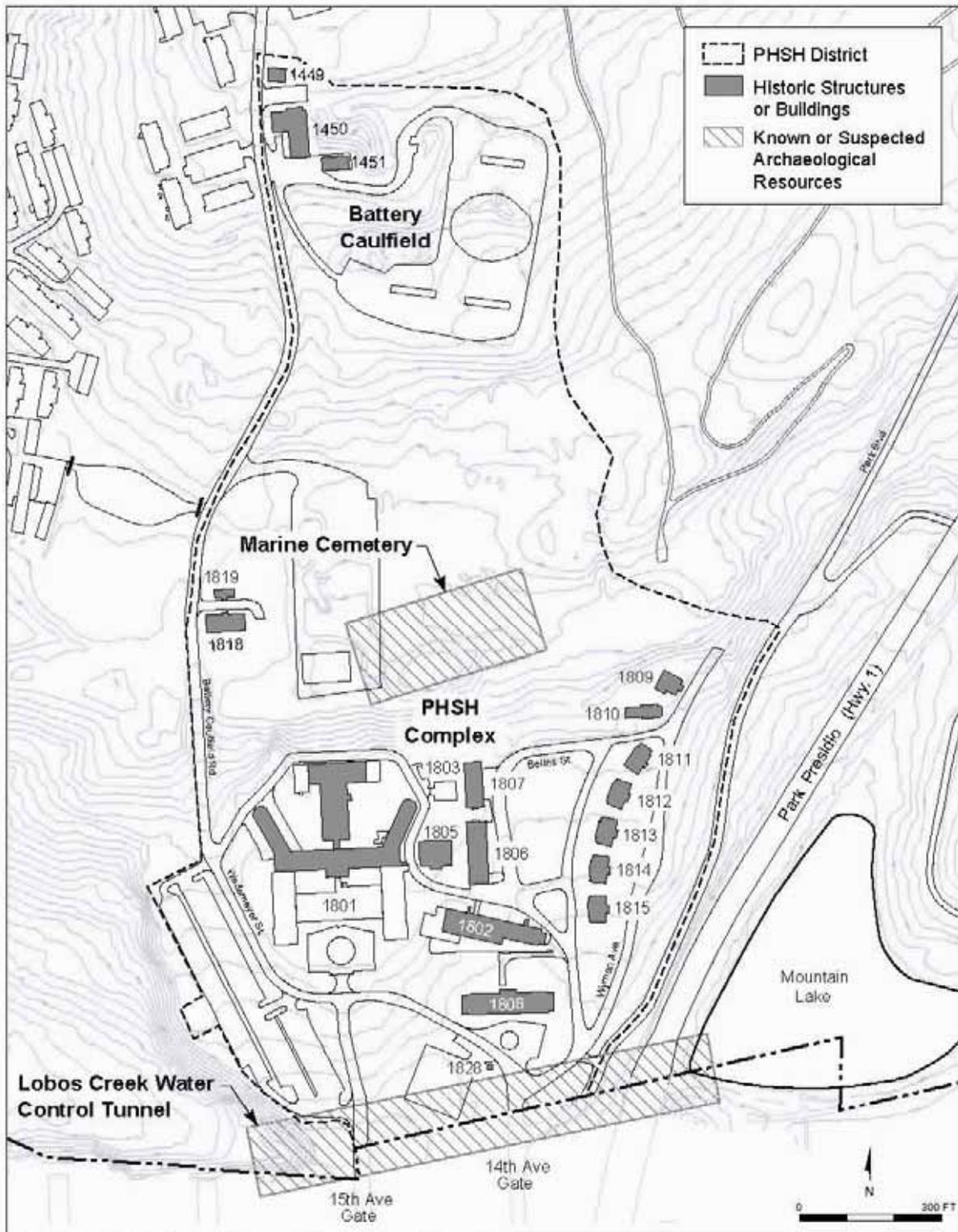


FIGURE 12. HISTORIC BUILDINGS AND ARCHAEOLOGICAL RESOURCES

Source: Presidio Trust, 2006

The PSHH site includes remnants of foundation plantings as well as trees that date from the period of significance. In addition, Wyman Avenue, Belles Street, and Park Boulevard remain essentially unchanged from their pre-1932 alignments, and Park Presidio Boulevard still connects the neighborhoods south of the Presidio to the Golden Gate Bridge. Park Presidio Boulevard is listed as a contributing resource in the 1993 update to the Presidio NHL. Although an evaluation prepared by Caltrans in 1987 and reviewed in 1994 concluded that it was not individually eligible for the National Register of Historic Places, for purposes of this analysis, the Trust has treated the resource as a contributing element in the Presidio NHL.²⁵

3.3.1.5 Regulatory Environment

As described in the PTMP EIS (page 82), the Trust is required to comply with the National Historic Preservation Act (NHPA). Section 110 of the NHPA sets out the broad responsibilities of federal agencies to integrate preservation into their ongoing activities, and requires agencies to “minimize harm” to National Historic Landmarks like the Presidio. Section 106 of the NHPA requires federal agencies to take into account the effects of their actions on historic properties, and to seek comments on their actions from an independent federal reviewing agency, the Advisory Council on Historic Preservation (ACHP). The ACHP’s regulations governing consultation under Section 106 further require the agency to consult with the applicable State Historic Preservation Officer and any other organizations or individuals who express an interest in being part of the Section 106 process.

During preparation of the PTMP, the Trust consulted with the ACHP, the California State Historic Preservation Officer (SHPO), and the NPS, as well as with the National Trust for Historic Preservation and the Fort Point and Presidio Historical Association as concurring parties, and executed a Programmatic Agreement (PA) regarding the plan and various operation and maintenance activities within Area B of the Presidio. This PA establishes procedures by which the Trust will satisfy its Section 106 responsibilities (see PTMP EIS Appendix D for the full text of the agreement).

Pursuant to Stipulation X of the PA, the Trust submitted to the ACHP, SHPO, NPS, and concurring parties a consultation package regarding the PSHH project in February 2004. That consultation package included the PSHH EA, public comments received during the scoping of the PSHH EA, and the draft Planning and Design Guidelines (included in the PSHH EA as Appendix A). At the request of concurring parties, consultation regarding this package of materials – originally scheduled for June 2004 – was deferred to allow preparation of the Draft SEIS and a cultural landscape assessment of the PSHH district. These documents were submitted to the PA parties in October 2004. After review by all parties, the SHPO stated, in a letter dated November 22, 2004, that successful completion of the Federal Preservation Tax Incentives certification process would meet the requirements of Stipulation XIV of the PA and thus satisfy the Trust’s requirements under Section 106 for this undertaking.

²⁵ See Caltrans memo dated 12.10.87, File No. 4-SF 5.9/7.1 4220-124620 cited in a March 1994 Historic Property Survey Report and Finding of Adverse Effect for the Proposed Seismic Retrofit Project on the Presidio Viaduct in the City and County of San Francisco. Section VI(B) of the Trust’s Programmatic Agreement (see Section 3.1.1.5) suggests that where there is some question as to eligibility, the Trust may treat that property as National Register-eligible for the purpose of evaluating effects.

The Trust's private development partner(s) intend to lease Buildings 1801 and 1805 for adaptive reuse and demolish non-contributing Building 1803 to create parking within their leasehold development boundary.

For rehabilitation projects involving structures that were historically functionally related, the Federal Historic Preservation Tax Incentives regulations state that rehabilitation certification will be issued on the merits of an overall project on a functionally related set of buildings rather than for each individual building. A consultation conference call held on January 20, 2006, with the SHPO, NPS Golden Gate National Recreation Area, and NPS Technical Preservation Services in Washington, D.C. redefined the Area of Potential Effect and set forth the use of a Process Programmatic Agreement (PPA) to meet the requirements of both the Federal Historic Preservation Tax Incentives regulations and Section 106 for the restructured project. The PPA is consistent with and references stipulations of the Trust's PA. The finalized PA will be included in the selected developer's submission for Federal Historic Preservation Tax Incentives review.

3.3.2 ENVIRONMENTAL CONSEQUENCES

The potential impacts of development within the Presidio on historic resources and the cultural landscape, including the NHLD as a whole, are assessed on pages 196 to 215 of the PTMP EIS. This analysis, which addresses a variety of alternatives for the PSHH district, is incorporated here by reference and summarized below. A site-specific analysis of potential impacts associated with the current range of alternatives for the project site follows.

The PTMP analysis presents a discussion of proposed changes within the PSHH district, including one scenario that would demolish all of the buildings on the site, one that would remove non-historic buildings only, one that would rehabilitate and reuse the buildings as they currently stand, and one that would build out the PTMP's maximum allowable new construction (130,000 sf) and demolition (130,000 sf).

The analysis concludes that demolition of historic buildings within the PSHH district would have an adverse effect on the NHLD but that rehabilitation and reuse of the buildings as they currently exist or rehabilitation and reuse following demolition of non-historic additions would have a beneficial effect on historic resources. The analysis also indicates that if non-historic square footage is removed and replaced with buildings elsewhere within the PSHH district, new (replacement) space would be sited and designed to reinforce historic character-defining features of the PSHH district in conformance with the PTMP planning principles and planning district guidelines. These principles and guidelines require that new construction be compatible with the historic setting of the Presidio and that character-defining features of the PSHH district be maintained. As a result, the PTMP EIS concludes that new construction would not impair the integrity of the NHLD.

3.3.2.1 Requested No Action Alternative

The Requested No Action Alternative would reuse recently or currently occupied historic buildings in the PSHH district (i.e., Buildings 1450, 1805, 1806, 1808, and a portion of Building 1802) but would

“mothball” currently vacant historic buildings, including the main hospital building (Building 1801) and the Wyman Avenue houses. Mothballing would protect the vacant buildings from weather, and would secure them from vandalism to the extent feasible. Such stabilization would minimally respond to the Trust’s mandate under Section 110 of the NHPA, and leave the decision whether to rehabilitate and reuse the buildings or demolish them to a subsequent planning process.

By reusing previously rehabilitated buildings and stabilizing vacant ones to prevent further deterioration, the Requested No Action Alternative would not adversely affect historic resources. No historic fabric would be removed and no buildings would be demolished. However, no historic fabric would be rehabilitated, and the potential for removal of historic buildings at some point in the future would remain. This approach would be inconsistent with the spirit of PTMP planning principles that call for the rehabilitation and reuse of historic buildings, and not for their mothballing until some future date. No beneficial impacts on historic resources would occur (see Table 19 for a comparison of the alternatives).

Table 19. Summary of Adverse and Beneficial Impacts on Historic Resources

	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 4
Adverse Impacts					
Demolition of Historic Buildings	no	no	no	no	no
Inappropriate Additions/Changes	no	no	no	no	no
Beneficial Impacts					
Rehabilitation of Historic Buildings	no	yes	yes	yes	yes
Removal of Non-Historic Fabric	no	no	yes ^a	yes ^a	yes ^a
Appropriate Landscape Changes	no	yes	yes	yes	yes
Historical Interpretation	no	yes	yes	yes	yes

Source: Presidio Trust 2006.

Notes:

^aAlternative 2 would remove 22,000 square feet from the front of Building 1801. Alternatives 3 and 4 would remove about 115,000 square feet.

3.3.2.2 Alternative 1: PTMP Alternative

Building rehabilitation and reuse under this alternative would have a beneficial effect on historic architectural resources. Historic portions of Building 1801 and other buildings in the PHSB district would be rehabilitated in accordance with the Secretary of the Interior's Standards and returned to active use. Physical changes within the PHSB district would also comply with the planning principles and the planning district guidelines in the PTMP and with the Guidelines for Rehabilitating Buildings at the Presidio of San Francisco (ARG 1995). Where historic fabric is proposed for removal, either due to its poor condition or to accommodate the adaptive reuse of the buildings, it would be documented according to Historic American Building Survey standards.

Non-historic elements within the PHSB district, including the non-historic wings on the front of Building 1801 and the connecting loggia, would also be rehabilitated and maintained in this alternative. The wings would retain their current configuration and appearance, although any blue panels or other façade materials that are missing or damaged would be replaced in kind.

Rehabilitating and retaining existing non-historic additions to the PHSB district would not affect historic resources, since there would be no appreciable change in the appearance of the historic resources when compared to existing conditions or to the conditions that existed when the National Register eligibility of the PHSB district was established. Retaining non-historic elements would not, however, return the historic hospital building to its original prominence or expose its principal façade. Alternative 1 would not involve new construction, and thus would have no impacts associated with the introduction of new buildings within the PHSB district.

In combination with remediation of Landfills 8 and 10, and with planned trail and access improvements, Alternative 1 would involve landscape changes within the PHSB district. These changes would include re-creation of a formal entry drive from the 14th Avenue Gate to Building 1801, reconfiguration of parking areas on the lower plateau, and additions to remnant planted borders and designed landscape areas throughout the lower plateau. All changes would be required to conform to the Secretary of the Interior's Guidelines for the Treatment of Cultural Landscapes (NPS 1992b).

In conformance with the PTMP, Alternative 1 would include installation of interpretive materials in some building lobbies and at key wayside locations throughout the PHSB district. Specifically, signs and/or landscape treatments would commemorate the site of the former Marine Hospital Cemetery and would explain the history of the Nike Missile Site and the significance of the Public Health Service and individual buildings within the district. Pursuant to the Presidio Trust Act, the NPS would be asked to assist the Trust in developing interpretive materials. The Fort Point and Presidio Historical Association and the California Heritage Council (CHC) have also agreed to assist the Trust.

3.3.2.3 Alternative 2: Wings Retained / Trust Revised Alternative

Building rehabilitation and reuse in Alternative 2 would have a beneficial effect on historic architectural resources, similar to Alternative 1, because historic portions of Building 1801 and other buildings in the PHSB district would be rehabilitated in accordance with the Secretary of the Interior's Standards and

returned to active use. In addition, Alternative 2 would have a beneficial effect on historic resources due to removal of the non-historic lobby and loggia of Building 1801.

Physical changes within the PSHH district would comply with the site-specific Planning and Design Guidelines prepared for the PSHH district and included in draft form in Appendix A of the PSHH EA. These guidelines, which are intended to provide specific direction to project designers and ensure compliance with the planning principles and the planning district guidelines in the PTMP, will be finalized following public review and consultation with the SHPO, ACHP, and other signators to the PA.

Most non-historic elements within the PSHH district, including the non-historic wings on the front of Building 1801, would be rehabilitated and retained in this alternative, similar to Alternative 1. However, the one-story loggia and lobby connecting the wings would be removed to reveal the central portion of the historic facade, and the wings themselves would receive a new façade treatment. In addition, non-historic additions at the rear of Building 1801 may be removed. New cladding on the non-historic wings would be designed to improve their appearance, but not to mimic the historic façade or suggest an historic period.

Removal of non-historic Building 1803 is also proposed. A new landscape treatment at this location would include surface parking. The new landscape treatment would be in accordance with the Secretary of the Interior's Guidelines for the Treatment of Cultural Landscapes (NPS 1992b).

In combination with remediation of Landfills 8 and 10, and with planned trail and access improvements, Alternative 2 would involve landscape changes within the PSHH district. These changes would include re-creation of a formal entry drive from the 14th Avenue Gate to Building 1801, reconfiguration of parking areas on the lower plateau and elimination of the parking area at Landfill 8, and additions to remnant planted borders and designed landscape areas throughout the lower plateau. Underground parking proposed for the area in front of and beneath the PSHH would increase the amount of landscaping in the area, raise the forecourt to the height of the building's first floor, and also introduce access and egress points on the south and west sides of the building. All site changes would be required to conform with the Secretary of the Interior's Guidelines for the Treatment of Cultural Landscapes (NPS 1992b), and would be consistent with the PSHH Cultural Landscape Assessment dated August 2004.

In conformance with the PTMP, Alternative 2 would include installation of interpretive materials in some building lobbies and at key wayside locations throughout the PSHH district. Specifically, signs and/or landscape treatments would commemorate the site of the former Marine Hospital Cemetery, and would explain the history of the Nike Missile Site and the significance of the Public Health Service and individual buildings within the complex. Pursuant to the Presidio Trust Act, the NPS would be asked to assist the Trust in developing interpretive materials. The Fort Point and Presidio Historical Association and the CHC have also agreed to assist the Trust.

3.3.2.4 Alternative 3: Wings Removed Alternative

Building rehabilitation and reuse in Alternative 3 would have a beneficial effect on historic architectural resources, similar to Alternative 1 and Alternative 2, because historic portions of Building 1801 and other

buildings in the PHSB district would be rehabilitated in accordance with the Secretary of the Interior's Standards and returned to active use. In addition, Alternative 3 would have a beneficial effect on historic resources by removing the non-historic lobby and loggia of Building 1801 *plus* the entirety of the building's non-historic wings.

Physical changes within the PHSB district would comply with the site-specific Planning and Design Guidelines prepared for the PHSB district and included in draft form in Appendix A of the PHSB EA. These guidelines, which are intended to provide specific direction to project designers and ensure compliance with the planning principles and the planning district guidelines in the PTMP, will be finalized following public review and consultation with the SHPO, ACHP, and other signatories to the PA. Where historic fabric is proposed for removal, whether due to its poor condition or to accommodate the buildings' adaptive reuse, it would be documented according to Historic American Building Survey standards.

Removal of non-historic elements within the PHSB district, including the non-historic wings on the front of Building 1801, would reveal the historic façade of the main hospital. Non-historic portions of Building 1802 would also be removed, along with the entirety of Building 1803. All of these changes would have a beneficial effect on historic architectural resources. Alternative 3 would also not involve new construction, and thus would have no impacts associated with the introduction of new buildings within the PHSB district.

In combination with remediation of Landfills 8 and 10, and with planned trail and access improvements, Alternative 3 would involve landscape changes within the PHSB district. These changes would include re-creation of a formal entry drive from the 14th Avenue Gate to Building 1801, reconfiguration of parking areas on the lower plateau and elimination of the parking area at Landfill 8, and additions to remnant planted borders and designed landscape areas throughout the lower plateau. All changes would be required to conform to the Secretary of the Interior's Guidelines for the Treatment of Cultural Landscapes (NPS 1992b) and would be preceded by preparation of a detailed cultural landscape assessment for areas within and adjacent to the leasehold boundary proposed by the Trust's private development partner(s).

In conformance with the PTMP, Alternative 3 would include installation of interpretive materials in some building lobbies and at key wayside locations throughout the PHSB district. Specifically, signs and/or landscape treatments would commemorate the site of the former Marine Hospital Cemetery, and would explain the history of the Nike Missile Site and the significance of the Public Health Service and individual buildings within the complex. Pursuant to the Presidio Trust Act, the NPS would be asked to assist the Trust in developing interpretive materials. The Fort Point and Presidio Historical Association and the CHC have also agreed to assist the Trust.

3.3.2.5 Alternative 4: Battery Caulfield Alternative

Building rehabilitation and reuse in Alternative 4 would have a beneficial effect on historic architectural resources, similar to Alternatives 1, 2, and 3, because historic portions of Building 1801 and other

buildings in the PSHH district would be rehabilitated in accordance with the Secretary of the Interior's Standards and returned to active use. In addition, like Alternative 3, Alternative 4 would have a beneficial effect on historic resources due to removal of the non-historic lobby, loggia, and wings of Building 1801.

Physical changes within the PSHH district would comply with the site-specific Planning and Design Guidelines prepared for the PSHH district. These guidelines, which are intended to provide specific direction to project designers and ensure compliance with the planning principles and the planning district guidelines in the PTMP, will be finalized following public review and consultation with the SHPO, ACHP, and other signatories to the PA. Where historic fabric is proposed for removal, whether due to its poor condition or to accommodate adaptive reuse of the buildings, it would be documented according to Historic American Building Survey standards.

Removal of the non-historic wings on the front of Building 1801 in this alternative would reveal the historic façade of the main hospital building, similar to Alternative 3. Additional, non-historic additions may also be removed, along with non-historic Building 1803. These changes would have a beneficial effect on historic architectural resources.

New construction would occur at two locations within the PSHH district under this alternative. A new three-story building (between 14,000 and 17,000 sf) would be constructed at the north end of the Central Green, and up to 64 apartments (about 56,000 sf) would be constructed at Battery Caulfield on the upper plateau. In conformance with the guidelines included in Appendix A of the PSHH EA, as well as the PTMP planning district guidelines and the Secretary of the Interior's Standards, all new construction would be compatible with surrounding historic buildings in scale, massing, and design, but would be clearly distinguishable as contemporary, rather than mimicking an earlier style or period. The new building sited north of the Central Green would be located where buildings existed on the site previously and would reinforce the campus-like setting by fitting onto a compact site, close to existing buildings as called for in the PTMP planning district guidelines. The new construction at Battery Caulfield would introduce buildings where none has existed in the past, although they would be scaled to ensure that the lower plateau and the PSHH maintain their prominence as the PSHH district's principal area of density and development.

In combination with remediation of Landfills 8 and 10, and with planned trail and access improvements, Alternative 4 would involve landscape changes within the PSHH district. These changes would include re-creation of a formal entry drive from the 14th Avenue Gate to Building 1801, reconfiguration of parking areas on the lower plateau and elimination of the parking area at Landfill 8, and additions to remnant planted borders and designed landscape areas throughout the lower plateau. Introduction of a new building on Belles Street would require adjusting the width and/or location of the street. Because the street and the small "green" it helps to define would still remain, this change would not be considered significant.

All changes would be required to conform to the Secretary of the Interior's Guidelines for the Treatment of Cultural Landscapes (NPS 1992b), and would be preceded by preparation of a detailed cultural

landscape assessment for areas within and adjacent to the leasehold boundary proposed by the Trust's private development partner(s).

In conformance with the PTMP, Alternative 4 would include installation of interpretive materials in some building lobbies and at key wayside locations throughout the PHS district. Specifically, signs and/or landscape treatments would commemorate the site of the former Marine Hospital Cemetery, and would explain the history of the Nike Missile Site and the significance of the Public Health Service and individual buildings within the complex. Pursuant to the Presidio Trust Act, the NPS would be asked to assist the Trust in developing interpretive materials. The Fort Point and Presidio Historical Association and the CHC have also agreed to assist the Trust.

3.3.2.6 Park Presidio Boulevard Access Variant

The Park Presidio Boulevard Access Variant would add an intersection to Park Presidio Boulevard approximately 400 feet north of Lake Street, at just about the point that an existing retaining wall ends. Resulting changes to Park Presidio Boulevard would not affect the highway's alignment, although drivers would notice visual changes such as new signs, a street light, and grading changes to accommodate the access road on the west side of the highway, across from Mountain Lake. The resulting roadway would reestablish a connection between Park Presidio Boulevard and this area that existed before the Golden Gate Bridge was opened to traffic. As shown on Figure 13, Park Presidio Boulevard was originally a landscaped boulevard that extended into the PHS district at about the location now proposed for introduction of a signalized intersection. This condition was modified shortly after the photograph on Figure 13 was taken, and Park Presidio Boulevard's primary function changed. It was no longer simply a connection between Golden Gate Park and the forested lands of the Presidio, but connected the city to Highway 1 and the Golden Gate Bridge.

Providing direct access between the PHS district and Park Presidio Boulevard in combination with Alternatives 1, 2, 3, or 4 would require changes to the PHS district's historic road alignments and landscaping. The current Park Presidio Boulevard is actually east of the original alignment and therefore farther away from the project site. Historically, Park Presidio Boulevard joined Wyman Avenue at a large expanse of pavement where several streets converged in one location. Modern highway safety standards would require a single direct access connection to Park Presidio Boulevard that would remove the historic convergence of streets and change the alignments of Wedemeyer Street, Brown Street, Wyman Avenue, and Park Boulevard. Specifically, the new access point would require that Wyman Avenue and Hays Street join and turn west earlier than they do currently, intersecting with a modified intersection or at the front of Building 1808. A formal entry drive from the 14th Avenue Gate would also intersect this intersection, since this gate would be open for inbound access to the site (as would the 15th Avenue Gate). All internal streets would be retained, and the landscaped open areas in front of the Wyman Avenue homes would be preserved. Park Boulevard would continue to exist as a trail and service road immediately west of Park Presidio Boulevard, but its alignment would also be modified at its southern terminus. Design of the new connection would incorporate design elements to minimize impacts on the cultural landscape.

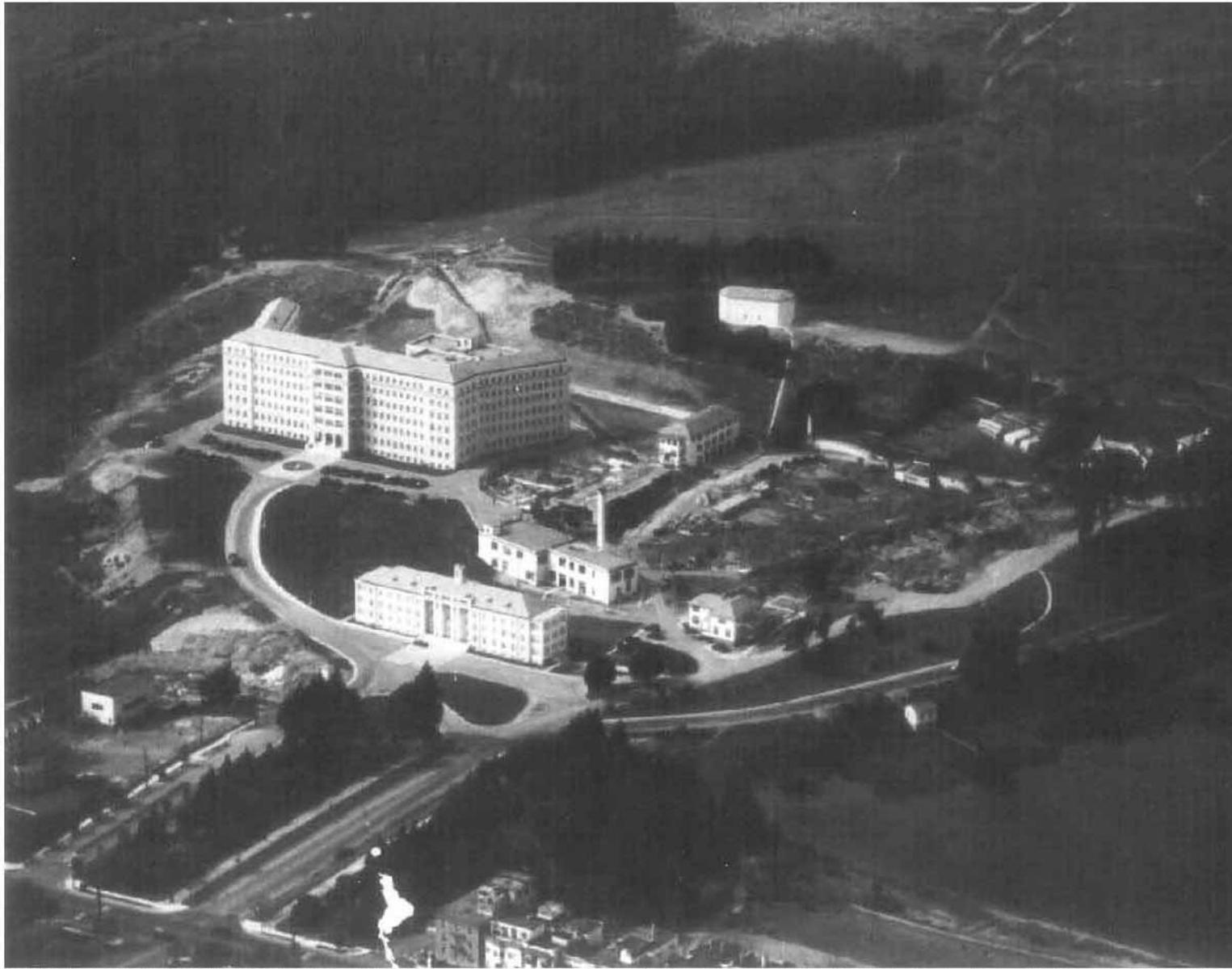


FIGURE 13. PARK PRESIDIO BOULEVARD ACCESS, CIRCA 1932

Source: National Park Service, Golden Gate National Recreation Area, Park Archives and Record Center

Consistent with the alternatives analyzed above, all changes would be required to conform with the Secretary of the Interior's Guidelines for the Treatment of Cultural Landscapes (NPS 1992b) and would be preceded by preparation of a detailed cultural landscape assessment for areas within and adjacent to the leasehold boundary proposed by the Trust's development partner(s).

3.3.2.7 Cumulative Effects

All alternatives except the Requested No Action Alternative would have a beneficial effect on historic architectural resources because they would involve rehabilitation and reuse of historic structures within the PHSB district. When the rehabilitation of historic buildings at the PHSB district is considered in combination with the ongoing rehabilitation of other historic buildings at the Presidio, the cumulative effect would also be beneficial. Since the Presidio became a national park site, approximately 170 historic residential buildings, along with approximately 750,000 sf of non-residential space, have been rehabilitated. The PHSB project would add seven historic residential buildings (duplexes and single-family houses) and about 250,000 sf of nurses' dormitories and non-residential space to this total.

Landscape and circulation changes associated with each alternative would be carefully designed and constructed to avoid adverse effects on character-defining features of the cultural landscape. The same is true for changes associated with other planned projects in the area, such as the remediation of landfill sites, creation of trails, establishment of a trailhead and scenic overlook as called for in the Presidio Trails and Bikeways Master Plan, and ecological enhancement of natural areas. Thus, with the mitigation measures agreed to as part of the PTMP, cumulative impacts on the cultural landscape of the PHSB district and the NHLD would be avoided.

3.3.3 MITIGATION MEASURES

All potentially significant impacts on historic resources would be avoided under all alternatives with implementation of the following mitigation measures derived from the PTMP EIS. These mitigation measures will be adopted as conditions of approval.

CR-1 Documentation of Building Addition to be Removed – Should all or some of the non-historic additions to Building 1801 be removed, appropriate mitigating measures will be determined in consultation with the SHPO and the ACHP during the Section 106 consultation process. In this instance, measures will protect historic fabric from inadvertent damage due to removal of non-historic additions.

CR-2 Code Compliance – As stipulated in the Presidio Trust Act, the Trust will upgrade buildings to meet life safety standards and to comply with the Americans with Disabilities Act (ADA) as necessary. Rehabilitation of historic buildings will include modifications to meet applicable building codes to the extent practicable.

CR-3 Long-Term Maintenance and Preservation of Vacant Buildings – Following rehabilitation, the Trust will ensure that development partners or designees perform continued maintenance thereby preventing damage to historic features and ensuring that buildings are adequately maintained. Buildings

within the PHSB district that remain vacant will be “mothballed” or otherwise protected to prevent further deterioration, and will be inspected regularly. The Trust will set priorities and undertake necessary stabilization work to ensure long-term preservation and safe conditions for park visitors.

CR-6 Monitoring of Visitor Impacts on Sensitive Resources – The Trust will monitor sensitive cultural resources, such as historic landscape features and vacant structures, and identify actions to reduce any adverse impacts on these resources caused by park visitors and uses. Potential remedies (in addition to the remedy embodied in the Trust’s current project to rehabilitate and reuse vacant buildings in the PHSB district) may include temporary closure of areas, protective barriers, and informational signs.

CR-7 Compliance with Standards for Building and Cultural Landscape Rehabilitation – The Trust will ensure that building rehabilitation conforms to the Guidelines for Rehabilitating Buildings at the Presidio of San Francisco (ARG 1995) and the Secretary of the Interior’s Standards for the Rehabilitation of Historic Properties (NPS 1992a). Review for compliance with the Secretary of Interior’s Standards may occur within the Investment Tax Credit Part I and Part II Certification process as delineated in 36 CFR Part 67.

For historic landscape rehabilitation, the Trust will ensure conformance to the Secretary of the Interior’s Guidelines for the Treatment of Cultural Landscapes (NPS 1992b). The Trust will also ensure conformance to the PHSB Cultural Landscape Assessment (August 2004) for areas within and adjacent to its private development partner(s) proposed leasehold boundary prior to approval of site improvements.

CR-8 Ongoing Identification of Historic Properties – Consistent with requirements under Section 110 of the NHPA and the signed PA, the Trust will continue to evaluate buildings or structures that may become 50 years old or may have achieved exceptional significance since the 1993 NHL Update form was completed to determine if they should be included in the list of contributing resources. These evaluations will also encompass archaeological discoveries.

PTMP EIS Mitigation Measure *CR-5 Historic Forest* would not apply within the PHSB district, since the PHSB district does not contain any forested areas identified as part of the Presidio’s historic forest.

PTMP EIS Mitigation Measure *CR-4 Future Planning* will be satisfied by circulation of this Final SEIS for public comment and concurrent consultation pursuant to the PA.

3.4 Archaeological Resources

3.4.1 AFFECTED ENVIRONMENT

Archaeological resources of the Presidio are described on pages 76 to 82 of the PTMP EIS. Relevant portions of that description are incorporated here by reference and expanded upon as necessary.

The history of the Marine Hospital is intertwined with that of the Presidio as a whole both in the development of military reservation lands and in the provision of services to the community. As a civilian facility, the Marine Hospital provided free medical care, both short-term and convalescent, to merchant marines. While no buildings from the original 1870s complex remain, the site had been continuously used as a marine hospital for more than 100 years, from its 1875 opening to its closing in 1981 by the U.S. Public Health Service.

Subsurface remains of the cemetery associated with the early history of this facility exist, and lie largely beneath an extensive paved court and parking area located on the rise near the southwest corner of the upper plateau. Historical research suggests that a substantial cemetery once existed behind the former Marine Hospital. While records could not be found to establish that the burials of the cemetery had been relocated, the Army assumed that a relocation had taken place. In 1990 the Army conducted a test excavation in an area presumed to have been the Marine Hospital Cemetery and found the remains of two burials below almost 15 feet of concrete rubble. In 2002, field investigations for environmental remediation of Landfill 8 by the Trust also encountered human remains near the ground surface (URS 2003). Historical research suggests that the remains of approximately 500 to 600 individuals are interred in the cemetery.

The known and predicted archaeological features within the site vicinity contribute to the NHL and are of national significance. These features are shown on Figure 12 and include the following:

- *PHAF-34 (Marine Hospital and Cemetery)* – This is an area of sensitivity that includes historic features associated with squatters or farmers (?-1869), the earlier construction of the Marine Hospital, outbuildings, historic refuse deposits (1875-1932), and the Marine Hospital Cemetery (1885-).
- *PHAF-10 (Lobos Creek Water Control)* – Remains include the Hotelling Tunnel and parts of early water supply systems connecting Mountain Lake to the Spring Valley Water Works on Lobos Creek (1857-?).
- *PPAF-3 (Mountain Lake)* – This water source and the surrounding area have high potential for prehistoric archaeological sites (but no documented incidence of discovery), including the temporary encampment used in the spring of 1776 by a Spanish expedition led by Juan Bautista de Anza in the area adjacent to Mountain Lake prior to establishment of El Presidio de San Francisco in the Main Post area that summer.

3.4.2 ENVIRONMENTAL CONSEQUENCES

Potential impacts on archaeological resources are assessed on pages 215 to 219 of the PTMP EIS. This analysis is incorporated here by reference and expanded upon below. Reference is made to the Programmatic Agreement executed among the Trust, NPS, SHPO, and ACHP regarding routine maintenance projects and projects that implement the PTMP. A copy of the PA is included in Appendix D of the PTMP EIS and is available for review at the Trust's offices and website (www.presidio.gov).

3.4.2.1 Requested No Action Alternative

No building demolition or new construction is proposed under this alternative. Direct effects on archaeological resources would be limited to ground-disturbing activities resulting from routine maintenance and ongoing operation of buildings, grounds, roads and parking areas, utilities, and other existing facilities. Under the terms of Stipulation VII, Assessment of Effects, of the PA, these undertakings would be considered repetitive and low impact in nature and would have minimal or low potential for affecting archaeological resources. Therefore, no known or previously unidentified archaeological property is likely to be affected.

3.4.2.2 Alternative 1: PTMP Alternative

Under this alternative, no building demolition or replacement construction would occur. Direct effects on archaeological resources would be minimal and limited to such ground-disturbing activities as infrastructure upgrades, pavement removal, and landscaping pursuant to the PTMP undertaking. Under the terms of Stipulation XII, Archaeology, of the PA, an Archaeological Management Assessment and Monitoring Program would be prepared to determine whether subsurface coring or trenching and/or test excavations are required prior to ground disturbance, and ground-disturbing activities and construction would be closely observed (PTMP EIS Mitigation Measures CR-8 and CR-9). In accordance with the terms of Stipulation XIII, Discoveries, of the PA, if it appears that a previously unidentified property that could be eligible for inclusion in the National Register or could contribute to the NHLD could be affected, or a known historic property could be affected in an unanticipated manner, the Trust would stop any potentially harmful activities in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the property until it concludes consultation with the State Historic Preservation Officer (PTMP EIS Mitigation Measures CR-14 and CR-15). Other terms of Stipulations XII, Archaeology, and XIII, Discoveries, of the PA as reiterated in the PTMP EIS mitigation measures listed below would also be implemented to protect and manage the archaeological record.

3.4.2.3 Alternative 2: Wings Retained / Trust Revised Alternative

Under this alternative, the potential for direct effects on archaeological resources would be slightly greater than under the Requested No Action Alternative and Alternative 1 due to ground-disturbing activities associated with underground parking. As with the Requested No Action Alternative and Alternative 1, however, the measures identified as stipulations of the PA and committed to as part of project implementation would avoid or minimize harm to archaeological resources.

3.4.2.4 Alternative 3: Wings Removed Alternative

Ground-disturbing activities associated with demolition of approximately 125,000 sf of non-historic buildings on the lower plateau would likely encounter archaeological resources. As with the Requested No Action Alternative and Alternatives 1 and 2, the measures identified as stipulations of the PA and committed to as part of project implementation would avoid or minimize harm to archaeological resources.

3.4.2.5 Alternative 4: Battery Caulfield Alternative

Direct effects on archaeological resources due to 56,000 sf of new construction within Battery Caulfield would be unlikely, since ground-disturbing activities would take place within a heavily modified area where there are no known or suspected resources. Demolition of 116,000 sf of building area on the lower plateau would likely encounter archaeological resources. Similar to the other alternatives, the measures identified as stipulations of the PA and committed to as part of project implementation would avoid or minimize harm to archaeological resources on the lower plateau.

3.4.2.6 Park Presidio Boulevard Access Variant

Grading and construction of the Park Presidio Boulevard Access Variant would occur in an area of the PHS district that was disturbed when Highway 1 was originally constructed in the 1930s. As a result, the likelihood of encountering archaeological resources is minimal. Nonetheless, measures identified in the PA would avoid or minimize harm to archaeological resources if unexpected discoveries occur.

3.4.2.7 Cumulative Effects

Based on the cumulative analyses in the PTMP EIS, excavation or grading associated with development plans could disturb or destroy archaeological resources. Cumulative impacts on known prehistoric archaeological sites or historic archaeological resources are, in general, not expected to be adverse. Ground-disturbing activities and construction projects would be closely observed in the vicinity of sensitive archaeological areas, and archaeology stipulations in the PA would be followed. These stipulations include preparation of an Archaeological Management Assessment and Monitoring Program (AMA/MP) prior to ground disturbance. Because new construction would involve site investigations prior to excavation and/or monitoring for archaeological resources as needed during excavation, the likelihood that archaeological resources would be destroyed or damaged without appropriate attention to recordation and recovery would be minimized.

3.4.3 MITIGATION MEASURES

The following measures are derived from the PA and PTMP EIS and were adopted as conditions of approval at the end of the PTMP planning and environmental review process. Implementation of these measures will serve to avoid potentially significant impacts in all alternatives:

CR-8 *Archaeological Management Assessment and Monitoring Program* – The Trust will require its private development partner(s) to retain the services of a qualified archaeologist who will develop an

Archaeological Management Assessment and Monitoring Program (AMA/MP) for areas and undertakings within and adjacent to their proposed leasehold boundary. The AMA/MP will ensure that all planned site disturbances are reviewed by a qualified archaeologist prior to final design and/or approval. In addition to the AMA/MP, the project archaeologist will prepare and the Trust will review an archaeological research design for any archaeological investigations that are required, and/or test excavations or data recovery from prehistoric or historic sites that are known or discovered. The Trust's management of archaeological properties is reviewed annually in accordance with Stipulation XXI of the PA. The AMA/MP and any research design required pursuant to this measure would be incorporated into the Trust's annual report.

CR-9 *Ground-Disturbing Activities* – Ground-disturbing maintenance activities and construction projects will be closely observed in the PHSH district's lower plateau to discover, document, protect, and manage the archaeological record of the Presidio. The AMA/MP described in PTMP EIS Mitigation Measure CR-8 will specify whether archival research, subsurface coring or trenching, and/or test excavations are required prior to ground disturbance, and if so, where. Archaeological monitoring is appropriate in areas of predicted archaeological sensitivity or for sampling purposes in areas that are not considered sensitive when the natural ground surface is obscured by paving or fill, or in other instances where a pedestrian survey or archaeological testing cannot reasonably be accomplished. Any required archaeological monitoring will be implemented in accordance with the AMA/MP and prepared by qualified personnel, and the project archaeologist will have the authority to stop excavation, grading or other construction activities in the vicinity of the discoveries to allow for investigation, evaluation, and (if appropriate) recovery. If historic properties or prehistoric properties are discovered during implementation of an undertaking, a detailed report will be prepared. Should circumstances arise where the Trust cannot address archaeological concerns in a manner consistent with the AMA/MP, the Trust will notify the SHPO. Following completion of all ground-disturbing activities, the project archaeologist will be required to prepare a written report of their findings for inclusion in the Trust's annual report.

CR-11 *Excavation Permits* – The Trust will require all excavation permits to undergo archaeological review by qualified personnel, as defined in Stipulation III of the PA, prior to initiation of the requested activity. The excavation clearance process is included as Appendix B to the PA.

CR-13 *Curation of Archaeological Collections* – All records associated with excavations and excavated materials not subject to the Native American Graves Protection and Repatriation Act (NAGPRA) that are deemed important for preservation will be accessioned, catalogued, and managed in accordance with 36 CFR Part 79, "Curation of Federally-Owned and Administered Collections."

CR-14 *Discoveries* – If it appears that an excavation in the PHSH district would affect a previously unidentified property that could be eligible for inclusion in the National Register, or could contribute to the NHL, or affect a known historic property in an unanticipated manner, the Trust will stop any potentially harmful activities in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the property until it concludes consultation with the SHPO.

CR-15 *Treatment of Discoveries* – If the newly discovered property has not previously been included in or determined eligible for the National Register and provisions for its treatment are not contained in an approved research design or AMA/MP, the Trust may assume that the property is eligible for purposes of the PA. The Trust will notify the NPS and SHPO at the earliest possible time and consult to develop actions that shall take the effects of the undertaking into account. The Trust will notify the SHPO of any time constraints, and the Trust and the SHPO will mutually agree upon time frames for this consultation, which will not exceed 30 days. If treatment of the discovery is not included in an approved research design or AMA/MP, the Trust will develop written recommendations reflecting its consultation with the NPS and SHPO and, as necessary, will present a plan and schedule to implement these recommendations.

PTMP EIS Mitigation Measures CR-10 *Archaeological Grid and Database* and CR-12 *Archaeological Management Plan for El Presidio* would not apply to the PHS project, except that any reports or excavated materials not subject to the NAGPRA would become the property of the Trust and would be incorporated into the Presidio's archaeological grid map and database.

3.5 Air Quality

3.5.1 AFFECTED ENVIRONMENT

The existing air quality environment of the Presidio and its regulatory context are described on pages 124 to 126 of the PTMP EIS. This description is incorporated here by reference. Information relevant to the PHS district is summarized and updated below.

3.5.1.1 Air Quality Management

The nine-county San Francisco Bay Area Air Basin has a history of recorded violations of federal and state ambient air quality standards for ozone, carbon monoxide (CO), and inhalable particulate matter less than ten microns in diameter (PM₁₀). The U.S. Environmental Protection Agency (EPA) has classified the Bay Area a moderate non-attainment area for ozone, and as a maintenance (attainment) area for carbon monoxide. The California Air Resources Board (CARB) has given the Bay Area state-level non-attainment status for ozone and PM₁₀. Implementation of relatively new standards for particulate matter less than 2.5 microns in diameter (PM_{2.5}) is also ongoing. Designations of attainment for PM_{2.5} indicate that the Bay Area attains the EPA standards, while the CARB designates the region with state-level non-attainment status. Although strategies for controlling PM_{2.5} are not yet established, measures that control PM₁₀ and gaseous pollutants from motor vehicles (such as ozone precursors) are also useful for controlling PM_{2.5}.

The Bay Area Air Quality Management District (BAAQMD) is the primary agency responsible for managing compliance with the ambient air quality standards in the Bay Area. With the State Implementation Plan (SIP) and the Clean Air Plan (CAP), the BAAQMD identifies the steps that must be taken to attain and maintain the state and federal standards, respectively. Local jurisdictions can cooperate with these efforts by implementing transportation control measures to reduce emissions from

motor vehicles. The Trust's transportation demand management (TDM) program would implement the relevant transportation control measures from the 2000 BAAQMD CAP (PTMP EIS, page 125), which continue to be components of the newer Bay Area 2005 Ozone Strategy adopted January 4, 2006.

In order to ensure that the proposed alternatives would not disrupt attainment of goals, federal actions must include a formal conformity determination if the action would cause total direct and indirect emissions of non-attainment pollutants to exceed specified thresholds. For any federal action in the Bay Area causing more than 100 tons per year of an ozone precursor (either reactive organic gases [ROG] or nitrogen oxides [NO_x]) or CO, the general conformity rule would apply (40 CFR 51.853). Federal actions causing emissions below these thresholds are presumed to conform to the SIP.

The Trust manages the air quality effects of land use development by managing construction activities and the demand for transportation. Development at the Presidio must conform to the Presidio-wide TDM program that would reduce emissions from motor vehicle sources. The Trust also coordinates land uses to avoid locating "sensitive receptors" (housing and other uses that might have occupants who are sensitive to air pollution) near substantial sources of pollution. Through these efforts, the Trust can ensure that its actions would be consistent with the SIP and the CAP and that it would not disrupt efforts to attain the ambient air quality standards.

3.5.1.2 Air Quality Conditions and Monitoring

Air quality at the Presidio is generally superior to that of most urban areas because the park is generally upwind of most sources of pollution. Violations of the state and federal standards for ozone persist in the Bay Area inland from San Francisco. Pollutants from San Francisco tend to be carried into the more sheltered areas of the region and cause violations of the standards there. Because of the city's location and climate, neither federal nor state ozone standards have recently been exceeded in San Francisco. Only state standards for PM₁₀ and PM_{2.5} have been recently exceeded locally. Concentrations of carbon monoxide in the Bay Area have complied with federal and state standards since 1991. Additional information about ambient air quality data is available in the PTMP EIS (pages 125 to 126).

Toxic air contaminants also affect the region. Because the effects of these contaminants are largely localized, ambient standards are not used to characterize their concentrations. Contaminants that are emitted primarily from motor vehicles account for over one-half of the average calculated cancer risk for Bay Area residents. Ambient benzene levels declined dramatically in 1996 with the advent of Phase 2 reformulated gasoline. Due largely to reductions in air toxics from motor vehicles, the calculated average cancer risk has been significantly reduced in recent years. Based on 2002 ambient monitoring data, the calculated cancer risk is 162 in one million, which is about 45 percent less than what was observed seven years earlier (BAAQMD 2004).

3.5.1.3 Local Sources of Air Pollution

Traffic-related emissions of criteria pollutants are generated along the roadways that surround and bisect the PHS district. Traffic congestion at the Presidio or on nearby roadways or intersections can occasionally result in localized elevated concentrations (hotspots) of carbon monoxide if heavy traffic

coincides with stagnant weather conditions. Diesel trucks, buses, and other equipment are sources of particulates in diesel exhaust, which are considered to be a toxic air contaminant.

Existing stationary sources of air pollutants within the PHSB district are limited to a central boiler system and small printing and metal casting operation operated by a tenant, both within Building 1802. The boiler system is a natural gas-fired steam generator, rated at approximately seven million British thermal units per hour (MMBtu/hr). It currently operates to provide heating and steam for the occupied buildings adjacent to Building 1802. Emissions from the boiler are limited to those typically associated with natural gas combustion, including less than 25 pounds per day (lb/day) of NO_x and a very small quantity (less than 0.05 lb/day) of formaldehyde and other combustion-related pollutants. Other units that may have been historically located at the PHSB district are either non-operational or have been removed. The existing boiler is exempt from BAAQMD permitting requirements and federal performance standards because the unit has a heat-input capacity of less than 10 MM Btu/hr. The tenant's printing and metal casting operation is also exempt from permitting because of its small capacity and minimal potential emissions (BAAQMD 2000).

3.5.2 ENVIRONMENTAL CONSEQUENCES

Air quality impacts of land use and development under the PTMP are assessed on pages 252 to 260 of the PTMP EIS. This assessment is incorporated here by reference. The PTMP EIS is supplemented here by analysis of issues specific to the PHSB project alternatives under consideration.

3.5.2.1 Requested No Action Alternative

Under this alternative, essentially no demolition or replacement construction would occur and the only sources of emissions would be similar to those that currently exist. Minor amounts of traffic-related emissions would occur because buildings that have been rehabilitated and occupied in recent years would be leased out. Stationary sources would be limited to the existing boiler system and tenant operations, because there would be no residential uses. Emissions that would be caused throughout the region by motor vehicle trips attributable to the Requested No Action Alternative have been estimated using the URBEMIS2002 emission model developed by the CARB; results are shown in Table 20. Because the emissions would be minor, the Requested No Action Alternative would not adversely affect localized concentrations of any contaminant or disrupt air quality management plans within the region.

3.5.2.2 Alternative 1: PTMP Alternative

Under this alternative, no building demolition or replacement construction would occur. Limited emissions from rehabilitation of existing buildings (with this alternative and Alternatives 2, 3, and 4) would warrant control. Consistent with BAAQMD recommendations for construction activity (BAAQMD 1999), rehabilitation activities having the potential to cause dust (PM₁₀) emissions (e.g., for infrastructure upgrades, which could cause small amounts of ground disturbance) would be subject to basic control measures (PTMP EIS Mitigation Measure NR-20). Consistent with EPA recommendations provided following their review of the Draft SEIS, construction equipment exhaust emissions would be

Table 20. Predicted Localized Carbon Monoxide (CO) Concentrations at Congested Intersections

	REQUESTED NO ACTION ALT.	ALT. 1	ALT. 2	ALT. 3	ALT. 4	ALT. 1 W/ VARIANT	ALT. 2 W/ VARIANT	ALT. 3 W/ VARIANT	ALT. 4 W/ VARIANT
1-Hour Average (ppm)									
Lake Street / 15 th Avenue	3.9	3.9	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Lake Street / 14 th Avenue	3.9	4.0	3.9	3.9	3.9	3.9	3.9	3.9	3.9
Lake Street / Park Presidio Boulevard	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
California Street / 15 th Avenue	3.8	3.9	3.8	3.8	3.8	3.8	3.8	3.8	3.8
California Street / 14 th Avenue	3.9	4.0	3.9	3.9	3.9	3.9	3.9	3.9	3.9
California Street / Park Presidio Boulevard	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
8-Hour Average (ppm)									
Lake Street / 15 th Avenue	2.6	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lake Street / 14 th Avenue	2.6	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Lake Street / Park Presidio Boulevard	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
California Street / 15 th Avenue	2.5	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.5
California Street / 14 th Avenue	2.6	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6
California Street / Park Presidio Boulevard	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3

Source: Aspen Environmental Group 2006.

Notes:

The California ambient air quality standards are 20 ppm (1-hour) and 9 ppm (8-hour). The national standards are 35 ppm (1-hour) and 9 ppm (8-hour).

Concentrations are based on CALINE4 outputs that are adjusted with future anticipated background CO concentrations of 3.5 ppm (1-hour) and 2.3 ppm (8-hour).

ppm = parts per million

reduced by the addition of a new mitigation measure for the PSH project (Mitigation Measure NR-X *Construction Equipment Exhaust Measures*).

Motor vehicle use and operation of minor stationary sources would be associated with the new uses (with this alternative and Alternatives 2, 3, and 4). Emissions from traffic at congested intersections can, under certain circumstances, cause a localized build-up of CO concentrations. Although regional monitoring data demonstrate that CO concentrations have recently been well below the applicable standards, the potential for localized increases in CO concentrations from increased traffic warrants investigation. Use of the Caltrans-approved CALINE4 dispersion model and guidance from the BAAQMD (BAAQMD 1999) allow a comparison of CO concentrations with the applicable ambient air quality standards. Table 20 shows that traffic (with this alternative and Alternatives 2, 3, and 4, including the possible Park Presidio Boulevard Access Variant) would not be likely to cause a violation of the CO standards.

Emissions that would be caused throughout the region by new motor vehicle trips and increased consumption of natural gas and other energy have been estimated using the URBEMIS2002 emission model developed by the CARB; the results are shown in Table 21. Mobile source emission estimates reflect the implementation of the Trust TDM program, which would minimize the activity of mobile sources (PTMP EIS Mitigation Measure NR-21).

Table 21. Estimated Average Weekday Emissions from Vehicle Trips and Area Sources

	REQUESTED NO ACTION ALT.	ALT. 1	ALT. 2	ALT. 3	ALT. 4
Average Weekday Vehicle Trips	1,296	4,286	1,725	1,542	1,295
Reactive Organic Gases (ROG) (lb/day)	4.01	31.61	26.31	25.42	28.06
Nitrogen Oxides (NO _x) (lb/day)	4.22	17.03	9.05	8.27	7.84
Carbon Monoxide (CO) (lb/day)	31.36	111.74	57.54	52.39	46.98
Sulfur Dioxide (SO ₂) (lb/day)	0.06	0.29	0.19	0.18	0.19
Particulate Matter (PM ₁₀) (lb/day)	10.29	34.93	16.20	14.40	11.91

Source: Aspen Environmental Group 2006.

Notes:

Based on BAAQMD recommendations for compliance with the California Environmental Quality Act (CEQA), a significant impact would occur if operation-related emissions equal or exceed 80 pounds per day (lb/day) of ROG, NO_x, or PM₁₀, and a significant impact may occur if emissions exceed 550 lb/day of CO.

Emission estimates are based on use of the CARB URBEMIS2002 model (version 8.7.0) for each alternative.

The central boiler system and tenant activities at Building 1802 could remain in service under this alternative. The area source estimates provided by URBEMIS2002 account for the emissions that could be associated with any foreseeable small new stationary sources (e.g., steam-generating boilers) that may

be necessary to provide basic utilities, even though none has been specifically proposed (for this alternative or Alternatives 2, 3, or 4). Any new sources for heating or steam generation would likely be small enough to be exempt from BAAQMD permit requirements or would otherwise comply with all applicable regulatory requirements and permit conditions such that no notable sources of air pollutants would occur. For projects subject to the California Environmental Quality Act (CEQA), the BAAQMD recommends a threshold of significance of 80 pounds per day for ROG, NO_x, and PM₁₀. Because emissions from mobile and area sources are not likely to exceed these thresholds, these emissions would not be significant in the regional context.

3.5.2.3 Alternative 2: Wings Retained / Trust Revised Alternative

Approximately 32,000 sf of new development and an underground parking garage would be built and 32,000 sf of building area would be demolished with this alternative. Demolition and ground-disturbing activities associated with rehabilitation and construction (in particular, the construction of an underground parking garage) would cause short-term emissions of construction dust and equipment exhaust that would be greater than in Alternative 1. Basic control measures and demolition techniques that would be part of the project implementation (PTMP EIS Mitigation Measures NR-20 and NR-22) would minimize emissions during the demolition and construction phases, and construction equipment exhaust would be reduced in a manner consistent with EPA recommendations (Mitigation Measure NR-X *Construction Equipment Exhaust Measures*). Impacts on local and regional air quality from motor vehicle emissions and other operating-phase emissions would be less than those identified for Alternative 1 because Alternative 2 would generate less traffic. The majority of the motor vehicle emissions from traffic under Alternative 2 would be caused by the residential components of this alternative. The TDM program (PTMP EIS Mitigation Measure NR-21) would reduce these emissions further.

3.5.2.4 Alternative 3: Wings Removed Alternative

Emissions of construction dust and equipment exhaust would be greater than in Alternative 1 due to demolition of approximately 125,000 sf of building area on the lower plateau, but construction emissions would be somewhat less than in Alternative 2 because no new construction would occur. Basic control measures and measures for demolition techniques that would be part of the project implementation (PTMP EIS Mitigation Measures NR-20 and NR-22) would minimize emissions during the demolition and construction phases, and construction equipment exhaust would be reduced in a manner consistent with EPA recommendations (Mitigation Measure NR-X *Construction Equipment Exhaust Measures*). Impacts on local and regional air quality from motor vehicle emissions and other operating-phase emissions would be less than those identified for Alternatives 1 and 2, and the TDM program would reduce these emissions further.

3.5.2.5 Alternative 4: Battery Caulfield Alternative

Emissions of construction dust and equipment exhaust would be greater than in Alternative 1 because of demolition of approximately 116,000 sf of structures on the lower plateau and 73,000 sf of new construction, including 56,000 sf within Battery Caulfield. The larger amount of demolition and new construction would cause higher construction emissions than expected with other alternatives. Basic

control measures for demolition techniques that would be part of the project implementation (PTMP EIS Mitigation Measures NR-20 and NR-22) would minimize emissions during the demolition and construction phases, and construction equipment exhaust would be reduced in a manner consistent with EPA recommendations (Mitigation Measure NR-X *Construction Equipment Exhaust Measures*). Impacts on local and regional air quality from motor vehicle emissions and other operating-phase emissions would be less than those identified for Alternatives 1, 2, and 3, and the TDM program would reduce these emissions further.

3.5.2.6 Park Presidio Boulevard Access Variant

As shown in Table 20, implementation of the Park Presidio Boulevard Access Variant would have a negligible effect on localized CO concentrations. Construction activities would cause short-term emissions of dust and equipment exhaust that would be reduced through implementation of basic control measures.

3.5.2.7 Cumulative Effects and General Conformity

Localized CO concentrations (see Table 20) are based on traffic volumes that include project traffic with background traffic, which is projected to increase over time. In this way, Table 20 takes into consideration cumulative effects on local air quality. Air quality impacts from motor vehicle emissions and other operating-phase emissions (see Table 21) would contribute to ongoing violations of federal or state ambient air quality standards for ozone, PM₁₀ and PM_{2.5} in the region. To minimize the cumulative effects of these impacts, the Trust would ensure that the alternatives would be consistent with the regional CAP by requiring implementation of the TDM program (PTMP EIS Mitigation Measure NR-21). Additionally, any new stationary sources associated with the alternatives would either be exempt from or subject to BAAQMD permitting regulations and requirements, which would ensure consistency of those emissions with the SIP and CAP.

Short-term emissions from construction activities could cause cumulative air quality effects if other nearby projects were to be under construction at the same time. In the vicinity of the PHSB district, there are existing landfill sites that are environmentally contaminated and require cleanup. The remediation work may occur simultaneously with demolition or construction phases of the PHSB alternatives. Basic control measures that would be part of the project implementation would also be part of other nearby projects at the Presidio.

The proposed alternatives would not disrupt goals of attainment. Implementation of the TDM program would ensure consistency with the CAP, and conformity with the SIP would be ensured because the relatively small scale of the proposed demolition and construction activities (a maximum of 73,000 sf of new construction for any alternative) would not create emissions in excess of the 100-ton-per-year threshold of the general conformity rule (40 CFR 51.853).

3.5.3 MITIGATION MEASURES

The following measures are derived from the PTMP EIS and will eliminate the potential for significant impacts related to the proposed action and its contribution to cumulative traffic congestion. These measures were adopted as conditions of approval at the end of the PTMP planning and environmental review process and will be implemented for all alternatives.

NR-20 *Basic Control Measures* – To reduce construction-generated particulate matter (PM₁₀) emissions, construction contractors will implement as appropriate the BAAQMD's recommended control measures for emissions of dust during construction. Basic control measures are as follows: 1) water all active construction areas at least twice daily; 2) cover all trucks hauling soil, sand, and other loose materials or require trucks to maintain at least two feet of freeboard; 3) pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas; 4) sweep when necessary (with water sweepers) all paved access roads, parking areas, and staging areas; and 5) sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.

NR-21 *Transportation Control Measures (TCMs)* – The Presidio Trust transportation demand management (TDM) program will implement the TCMs of the 2000 CAP to minimize air emissions from Presidio-related activities. In addition, consistent with the 2000 CAP, the Trust will coordinate land uses to provide buffer zones and avoid conflicts from toxic contaminants or odors.

NR-22 *Deconstruction/Demolition Techniques* – To the extent feasible, the Trust will apply an environmentally effective approach, including a combination of deconstruction and demolition techniques, to remove outdated structures and to reduce PM₁₀ emissions from demolition.

The following measure for the PSHH project is derived from EPA recommendations for construction equipment exhaust emissions that were provided following their review of the Draft SEIS.

NR-X *Construction Equipment Exhaust Measures* – To reduce construction-related equipment exhaust of particulate matter and ozone precursors, construction contractors will implement the EPA's recommended measures for equipment emissions. Measures are as follows: all construction equipment used at the construction site will 1) not idle for more than ten minutes; 2) not be altered to increase engine horsepower; 3) include particulate traps, oxidation catalysts and other suitable control devices; 4) use ultra low sulfur diesel fuel with a sulfur content of 15 ppm or less or other suitable alternative diesel fuel, unless the fuel cannot be reasonably procured in the geographic area; and 5) be tuned to the engine manufacturer's specifications in accordance with a defined maintenance schedule.

3.6 Noise

3.6.1 AFFECTED ENVIRONMENT

Noise-related characteristics of the Presidio under the PTMP land use plan are described on pages 127 to 130 of the PTMP EIS. The description is incorporated here by reference, and portions relevant to the PSHS district are summarized below and expanded upon as necessary.

Community noise can be expressed with the following terminology, introduced in the PTMP EIS (pages 127 to 129). The A-weighted decibel scale (dBA) characterizes the pitch and loudness, as perceived by humans. The equivalent energy indicator, L_{eq} , is an average of noise over a stated time period, usually one hour. The day-night average, L_{dn} , is a 24-hour average, which accounts for the greater sensitivity of most people to nighttime noise. The sound level that is exceeded ten percent of the time is known as L_{10} . If the L_{eq} is similar for two locations, a higher L_{10} indicates a wider fluctuation of noise levels and a lower L_{10} indicates steadier noise levels. Generally, a 3-dB difference in community noise is noticeable to most people, a 5-dB difference may cause a change in community reaction, and a difference of 10-dB is perceived as a doubling of loudness.

3.6.1.1 Noise Control Regulations and Programs

The Federal Highway Administration (FHWA) regulations (23 CFR 772) establish Noise Abatement Criteria (NAC), which aim to protect noise-sensitive land uses from highway noise. The FHWA procedures state that noise impacts from traffic are serious enough to warrant consideration of abatement when noise levels for a project approach or exceed the NAC or when they substantially exceed existing noise levels. The NAC are shown in Table 22.

The San Francisco Noise Ordinance (Article 29 of the San Francisco Police Code, 1994) contains the local noise control regulations that apply to the urban neighborhoods surrounding the Presidio. The noise ordinance regulates construction noise, fixed-source noise, and unnecessary, excessive, or offensive noise disturbances within the city. Sections 2907 and 2908 of the San Francisco Police Code provide that:

- Construction noise is limited to 80 dBA at 100 feet from the equipment during daytime hours (7:00 AM to 8:00 PM). Impact tools are exempt provided that they are equipped with intake and exhaust mufflers.
- Nighttime construction (8:00 PM to 7:00 AM) that would increase ambient noise levels by 5 dBA or more is prohibited unless a permit is granted by the Director of Public Works.

To protect new multi-family dwelling units associated with development alternatives (including apartments, long-term care facilities, and other attached dwellings) from unacceptable exterior noise environments (PTMP EIS, page 128), the Trust would enforce noise insulation requirements equivalent to the California Noise Insulation Standards (Part 2, Title 24, California Code of Regulations) with building permit conditions.

Table 22. FHWA Noise Abatement Criteria (Hourly dBA)

	ACTIVITY CATEGORY	$L_{eq}(h)$	$L_{10}(h)$
A	Lands on which serenity and quiet are of extraordinary significance and serve as important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.	57 (Exterior)	60 (Exterior)
B	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.	67 (Exterior)	70 (Exterior)
C	Developed lands, properties, or activities not included in Categories A or B above.	72 (Exterior)	75 (Exterior)
D	Undeveloped lands.	None Applicable	None Applicable
E	Residences, motels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.	52 (Interior)	55 (Interior)

Source: 23 Code of Federal Regulations, Part 772, Table 1.

Notes:

Either L_{eq} or L_{10} (but not both) may be used on a project.

dBA = A-weighted decibel scale

$L_{eq}(h)$ = equivalent energy indicator; average noise over one hour

$L_{10}(h)$ = sound level exceeded 10% of the time over one hour

3.6.1.2 Existing Noise Conditions

The existing noise environment of the PHSB district is characterized by existing traffic, most notably on Park Presidio Boulevard, and natural noise sources. The PHSB district is generally quieter than the surrounding urban environment, although there is a moderate level of human activity due to the current uses, including use of the parking lots.

Existing daytime noise levels in the areas surrounding the PHSB district are in the range of approximately 52 to 62 dBA L_{eq} , depending on the receptor's proximity to traffic. In the neighborhood immediately adjacent to the PHSB district, the exterior noise levels at the residences nearest to the Presidio gates are about 58 dBA L_{eq} . At the 14th Avenue Gate, the exterior noise is a steady background noise caused by traffic on Park Presidio Boulevard, while at the 15th Avenue Gate it is a fluctuating noise caused by traffic periodically passing through the gate.

At each of the monitoring locations examined for this analysis, traffic noise dominates the existing daytime noise environment. Away from traffic noise and noise from other human activity, the natural environment provides noise levels commonly below 60 dBA. All noise levels within the PHSB district are below the 67-dBA NAC threshold for recreation areas, residences, schools, and hospitals. Noise levels at the measurement location closest to the Nike Swale wetland area (near Building 1818) are also

below the more restrictive 57-dBA NAC for areas where serenity and quiet are of extraordinary significance. Table 23 summarizes the results of the noise monitoring program for daytime noise levels.

Table 23. Summary of Short-Term Noise Measurements, PHSH District

SITE	DESCRIPTION	TIME	DOMINATING NOISE SOURCE	L _{eq} (h) (dBA)	L ₁₀ (dBA)
R1	Wyman Avenue Housing at Building 1811	7:30 AM	Park Presidio Traffic	60.2	62
R2	15 th Avenue Gate	7:55 AM	15 th Avenue Traffic	57.8	62
R3	Battery Caulfield at Building 1451	8:25 AM	Battery Caulfield Road Traffic	61.4	66
R4	Upper Plateau at Building 1818	9:10 AM	Battery Caulfield Road Traffic	53.6	56
R5	14 th Avenue Gate (closed to traffic)	9:45 AM	Park Presidio Traffic	58.0	60
R10 (*)	PHSH District, Wyman Avenue at Building 1810	9:05 AM	Park Presidio Traffic	59.6	61

Source: Aspen Environmental Group 2003; except (*) from 2001, as shown in Table 8 of the PTMP EIS.

Notes:

Tests were duration of 15 to 30 minutes, taken on November 19, 2003.

dBA = A-weighted decibel scale

L_{eq}(h) = equivalent energy indicator; average noise over one hour

L₁₀ = sound level exceeded 10% of the time

3.6.1.3 Noise-Sensitive Areas

Examples of noise-sensitive areas that need to be protected include residences, schools, day care centers, parks, hospitals, convalescent centers, and recreational facilities. Existing and planned noise-sensitive uses include the existing Lone Mountain Children’s Center (in Building 1806); residences within the City of San Francisco (especially along 14th and 15th Avenues) and at the Presidio, including housing associated with the development alternatives; tranquil historic monuments (such as the proposed improvements to the former Marine Hospital Cemetery below the Nike Swale); and natural settings (such as the Nike Swale, Quail Commons, Lobos Creek, and Mountain Lake areas).

3.6.2 ENVIRONMENTAL CONSEQUENCES

Noise effects of the PTMP and plan alternatives are assessed on pages 260 to 268 of the PTMP EIS. This assessment is incorporated here by reference. The PTMP EIS analysis is supplemented here by analysis of the issues specific to the alternatives being considered for the PHSH project.

3.6.2.1 Requested No Action Alternative

Under this alternative, essentially no demolition or replacement construction would occur and the only sources of noise would be similar to those that currently exist (as described in Section 3.6.1.2 above). Minor amounts of traffic noise would continue, especially at the 15th Avenue Gate, the sole access for traffic outside the Presidio. Stationary sources would be limited to the existing boiler system and tenant operations. Except for traffic, which would continue to be focused at the 15th Avenue Gate, no notable source of noise would occur with the Requested No Action Alternative. Because it would not generate a high level of employment or sizeable adult and school-age residential population, the Requested No Action Alternative would not be likely to cause noise impacts during evenings and weekends. The noise levels shown in Table 24 indicate that residences in the adjacent city neighborhood would not experience traffic noise impacts that exceed FHWA noise abatement criteria.

Table 24. Traffic Noise Levels in the Vicinity of PHSH Gates by Alternative

LOCATION	REQUESTED NO ACTION ALT. (dBA)	ALT. 1 (dBA)	ALT. 2 (dBA)	ALT. 3 (dBA)	ALT. 4 (dBA)	ALT. 1 w/ VARIANT (dBA)	ALT. 2 w/ VARIANT (dBA)	ALT. 3 w/ VARIANT (dBA)	ALT. 4 w/ VARIANT (dBA)
14 th Ave. Gate	59.4	63.9	62.4	62.4	62.1	63.7	62.1	62.1	61.8
15 th Ave. Gate	62.3	61.7	58.8	58.4	57.9	57.8	56.1	56.1	55.8

Source: Aspen Environmental Group 2006.

Notes:

Traffic noise levels are expressed as $L_{eq}(h)$ for 2025 PM peak hour traffic at 50 feet from the center line of the roadway at the gate, except for noise levels at the 14th Avenue Gate under the Park Presidio Boulevard Access Variant, which are the combined noise levels of this access at 100 feet plus the 14th Avenue Gate at 50 feet.

Includes all pass-through traffic, inbound and outbound, in future year 2025.

dBA = A-weighted decibel scale

$L_{eq}(h)$ = equivalent energy indicator; average noise over one hour

3.6.2.2 Alternative 1: PTMP Alternative

On a short-term basis, limited noise would occur from rehabilitation activity (with this alternative and Alternatives 2, 3, and 4). Much of the rehabilitation work would occur within the existing buildings, which would shield outside areas from noise. Outdoor work would include infrastructure upgrades, pavement removal, and landscaping. No building demolition or replacement construction would occur under this alternative. All rehabilitation activities would be required to implement measures to manage construction-type noise (PTMP EIS Mitigation Measure NR-23). Furthermore, schedules for outdoor work would protect natural sounds and minimize noise impacts on wildlife (PTMP EIS Mitigation Measure NR-8). With these measures in place, the short-term noise from rehabilitation would be minimized.

Proposed rehabilitation of the PHSH complex would introduce noise-sensitive housing to an area of the Presidio that is near a major traffic corridor that can cause excessive noise (Park Presidio Boulevard). The results of noise monitoring (see Table 23) illustrate that at buildings on Wyman Avenue, or at other

buildings proposed for rehabilitation for residential use elsewhere on the lower or upper plateau, the existing noise levels are within the 67-dBA NAC. This means that there are no areas within the PHSB district where the existing noise would preclude future residential use. Additionally, the Trust would enforce noise insulation requirements equivalent to the California Noise Insulation Standards (Part 2, Title 24, California Code of Regulations) for new residences. New residences within the PHSB district (under this alternative or Alternatives 2, 3, and 4) would therefore not be exposed to excessive noise.

Operation and occupation of the rehabilitated PHSB district would cause increased traffic noise that could be noticeable for residents in the adjacent neighborhoods. Because no location in the PHSB district exceeds the FHWA NAC shown in Table 22, traffic noise increases are evaluated by considering whether they would cause noise to approach or exceed the NAC. The PTMP EIS illustrated that, although noticeable traffic noise increases (greater than 3 dBA) would occur on roadways providing access to the PHSB district, future traffic would not cause noise levels to approach or exceed the NAC (PTMP EIS, page 265). Traffic noise levels at residences and the former Marine Hospital Cemetery near Battery Caulfield Road were not estimated because none of the alternatives would notably affect traffic volumes on Battery Caulfield Road. Traffic noise levels caused by this alternative (and other alternatives) in the vicinity of the 14th and 15th Avenue Gates are shown in Table 24.

Noise from traffic at the 14th Avenue Gate under this alternative would increase above existing conditions, but not to levels that would exceed those anticipated under the PTMP EIS. Alternative 1 would include employment and educational uses attracting a high level of daytime activity and a sizeable adult and school-age residential population. This means that noise would tend to occur during both the daytime and evenings. Evening and weekend noise would also occur with the residential population. The noise levels shown in Table 24 indicate that the traffic noise impacts experienced by residences in the adjacent city neighborhood would not exceed the NAC or levels common and accepted in urban areas like the Richmond district.

3.6.2.3 Alternative 2: Wings Retained / Trust Revised Alternative

Approximately 32,000 sf of development would be built and 32,000 sf of building area would be demolished with this alternative. Demolition and construction activities would cause noise levels to be elevated for the short term of the construction phase. Demolition and most construction activities are capable of causing routine noise levels of approximately 79 to 84 dBA at 100 feet from the activity if noise control is not used, or 69 to 74 dBA with noise control. Demolition activities could include mechanical wrecking and use of an on-site temporary concrete crushing operation, especially if concrete would be recycled on-site. Construction could require use of dozers, loaders, trucks, cranes, compressors, and pneumatic tools. During the periods of demolition and concrete crushing operation, and periods of heavy truck activity for material removal or delivery, noise levels for receptors near the site or along roads providing access to the site could be considerable.

Demolition, rehabilitation, and construction would generally occur more than 400 feet from any residences in the City and County of San Francisco. Work would occur for a limited time within 400 feet of the homes if implementation of the new alternative access to Park Presidio Boulevard occurs. The

edge of this new roadway segment would be approximately 100 feet from the nearest residence on 14th Avenue, and the majority of the construction work for the new intersection would occur about 300 feet from homes (see further discussion in Section 3.6.2.6, Park Presidio Boulevard Access Variant, below). Other exceptions would include minor roadway improvements near the gates, parking lot improvements, landscaping, or infrastructure upgrades. The non-historic wings of Building 1801 are more than 400 feet from the nearest city residence.

All demolition, rehabilitation, and construction activities would be required to implement measures to manage construction-type noise (PTMP EIS Mitigation Measure NR-23). Construction activities would be confined to previously developed or “disturbed” areas of the PHS district to avoid noise and other indirect impacts on sensitive natural settings within and adjacent to the district. The south-facing dune slope behind the PHS complex will be managed as a buffer (see Hospital Buffer Zone on Figure 24), which will serve to shield wildlife on the upper plateau from noise within the complex. Furthermore, construction schedules would protect natural sounds and minimize noise impacts on wildlife, including nesting birds during the breeding season (PTMP EIS Mitigation Measure NR-8). With these measures in place, short-term noise levels would be minimized.

Traffic noise generated by occupation and operation of this alternative would be less than in Alternative 1. Alternative 2 would include a greater adult and school-age residential population. Since residents are typically away from home during the day, noise would tend to occur less in the daytime and more during evenings and weekends than under Alternative 1, which would involve a higher level of employment and weekday activity. The noise levels shown in Table 24 indicate that residences in the adjacent city neighborhood would not experience significant traffic noise impacts.

3.6.2.4 Alternative 3: Wings Removed Alternative

Although this alternative would not involve new construction, construction-related noise would be greater than in Alternative 1 due to demolition of approximately 125,000 sf of building area on the lower plateau. Demolition activities could include mechanical wrecking and use of an on-site temporary concrete crushing operation, especially if concrete would be recycled on-site. The measures identified in the PTMP EIS and committed to as part of project implementation would avoid or minimize noise impacts during all demolition and rehabilitation phases. All demolition and construction activities would be required to implement measures to manage construction-type noise (PTMP EIS Mitigation Measures NR-8 and NR-23). With these measures in place, the short-term noise would be minimized.

The traffic noise that would be generated by occupation and operation of this alternative would be less than that of Alternative 1 and roughly similar to that of Alternative 2. Alternative 3 would include an adult and school-age residential population that would be greater than in Alternative 1 and less than in Alternative 2. With the residential population, less daytime noise and more evening and weekend noise would occur than would be anticipated with Alternative 1, which would involve more employment and weekday activity. Compared to Alternative 2, less daytime noise would occur because of the lack of the office and educational uses, but evening and weekend noise for Alternative 3 would likely be similar to Alternative 2 because the residential population would be similar. The noise levels shown in Table 24

indicate that residences in the adjacent city neighborhood would not experience significant traffic noise impacts.

3.6.2.5 Alternative 4: Battery Caulfield Alternative

Construction-related noise would be greater than in other alternatives because of demolition of approximately 116,000 sf of building area on the lower plateau and 73,000 sf of new construction, including 56,000 sf within Battery Caulfield. All demolition, rehabilitation, and construction activities would be required to implement measures to minimize construction-type noise impacts (PTMP EIS Mitigation Measure NR-23), including those on wildlife, as identified below and in Section 3.12, Biology (PTMP EIS Mitigation Measure NR-8). With these measures in place, the short-term noise would be minimized.

The traffic noise that would be generated by occupation and operation of this alternative would be less than that of Alternative 1 and similar to that of Alternatives 2 or 3. Since Alternative 4 would include senior housing, some of the noise impacts would occur during evening and weekend periods because the senior population would attract more visitors during those times. Compared to Alternatives 2 and 3, evening and weekend noise for Alternative 4 would likely be less because the senior population would probably be less active than the adult and school-age inhabitants under those alternatives. The noise levels shown in Table 24 indicate that residences in the adjacent city neighborhood would not experience significant traffic noise impacts.

3.6.2.6 Park Presidio Boulevard Access Variant

The new access would help to remove some traffic from 14th and 15th Avenues and locate it within the Presidio, farther from homes in the adjacent neighborhood. Although the alternative access route would be entirely within the Presidio, noise from traffic on this route would still be audible at the 14th Avenue Gate. The closest edge of the roadway for the new alternative access would be approximately 100 feet from the nearest existing house in the City and County of San Francisco. In this analysis, noise from traffic at the 14th Avenue Gate is combined with noise from traffic on the new access, and the combined noise level for the house is shown in Table 24. As with other alternatives, the noise levels for the new access would not exceed the NAC. Temporary construction noise impacts under the variant would be greater than without the variant because short-term construction of the road would occur closer to the existing houses.

3.6.2.7 Cumulative Effects

Noise from PHSB district development, including operational traffic noise, would coincide with anticipated region-wide growth in traffic noise, especially from traffic on Park Presidio Boulevard, which could increase by roughly 0.9 dBA L_{eq} between existing conditions and 2025. Noise from any PHSB alternative would only affect the area adjacent to or in the vicinity of the PHSB district. Other Presidio construction projects, such as the remediation of existing landfills in the area, could overlap with PHSB development, creating additional noise. All construction projects would be required to conform to measures to manage construction-type noise, ensuring that short-term noise increases would be minimized. The cumulative effects of other foreseeable changes in traffic noise were analyzed in the

PTMP EIS and were found to be minor (PTMP EIS, page 369). Under any alternative, PHSB development would not exceed the noise levels anticipated in the PTMP EIS.

3.6.3 MITIGATION MEASURES

The following measures are adapted from the PTMP EIS and were adopted as conditions of approval at the end of the PTMP planning and environmental review process. For all of the alternatives, implementation of these measures will eliminate the potential for the proposed action to have significant impacts or contribute to cumulative noise increases.

NR-8 *Natural Sounds* – The former Marine Hospital Cemetery, the Nike Swale, and Quail Commons have been identified as areas important to natural soundscapes, both for recreation and wildlife, and will be monitored during construction or other activities that could be detrimental to this value. These noise-sensitive areas will also be protected by establishing a construction schedule that limits disturbance during bird nesting activity (see PTMP EIS Mitigation NR-9 *Wildlife and Wildlife Habitat*).

NR-23 *General Construction/Demolition Noise* – During construction, contractors and other equipment operators will be required to comply with the San Francisco Noise Ordinance (San Francisco Municipal Code, Section 2907b), which requires that each piece of powered equipment, other than impact tools, emit noise levels of not more than 80 A-weighted decibels (dBA) at 100 feet. To reduce noise impacts, barriers will be erected around construction sites and stationary equipment such as compressors; this will reduce noise by as much as 5 dBA. To further reduce noise impacts on visitors, some construction sites will be temporarily closed, and appropriate barriers placed at a distance of 250 feet from the sites.

NR-24 *Traffic Noise Reduction* – Vehicle traffic throughout the Presidio represents the major source of existing and future noise, especially from U.S. Highways 101 and 1. Although the Trust cannot control the level of noise produced by privately owned vehicles, it can control which types of transit vehicles are used for park purposes at the Presidio. The Trust will use and encourage city agencies and transit providers to select transit vehicles that produce less noise pollution. Energy-conserving government vehicles will be used by maintenance and other divisions. If possible, electric or other alternative vehicles will be used to reduce noise levels.

PTMP EIS Mitigation Measure NR-25 *Traffic Noise Monitoring and Attenuation* applies to areas some distance from the PHSB district and does not apply to the proposed alternatives.

3.7 Visual Resources

3.7.1 AFFECTED ENVIRONMENT

Important views and other visual resources are described on pages 122 to 123 of the PTMP EIS. This description is incorporated here by reference, and portions relevant to the PHSB district are summarized below and expanded upon as necessary.

3.7.1.1 Visual Characteristics of the PHSB District and Surrounding Areas

The Presidio as a whole is a major visual resource for the San Francisco Bay Area, and its forested ridges and green aspect provide marked contrast to the adjacent urban landscape. The historic forest is one of many scenic resources, and stands in and around views toward the Golden Gate Bridge, the Pacific Ocean, and the bay. Nearby are steep bluffs covered with gray-green coastal scrub, picturesque valleys, and distinguished historic buildings.

Developed areas within the PHSB district are in a severely deteriorated condition, and many buildings and paved areas provide an unsightly contrast to the beautiful natural surroundings and scenic vistas. Building 1801, the PHSB (see Figure 14), is particularly derelict, with cyclone fencing around its perimeter and visibly deteriorated building materials on all facades. The non-historic wings almost completely obscure the historic front façade.

Other areas on the lower plateau, such as the houses along Wyman Avenue and the paved parking areas south and west of the PHSB, are equally deteriorated. Where buildings have been rehabilitated or where views are available toward surrounding areas, visual characteristics are more pleasing. For example, the hillside north of the Central Green once housed a terraced garden that is long overgrown, and now forms a forested “buffer” between the lower plateau and the upper plateau (see Figure 15).

On the upper plateau, paved areas are worn and untidy, and include an abandoned tennis court, an abandoned parking area that now provides space for stock piles of green waste and compost, and the former Nike Missile Site at Battery Caulfield. Built into the slope at two elevations, Battery Caulfield is an unsightly mix of heavy equipment, stock-piled materials, and broken pavement (see Figure 16). The only evidence of the former missile installation is rusted metal doors that lie flush to the ground surface, and the soil berms that were constructed or retained nearby.

Visually attractive resources on the upper plateau include vegetated areas between and around Battery Caulfield and the composting area. Here a trail wanders through an area where the natural landscape seems close at hand, and trees delineate the edge of the Presidio Golf Course.

3.7.1.2 Important Views

Dramatic views are available from Battery Caulfield, from the PHSB, and from many other areas on the lower plateau (see Figure 17). Of particular note are views from the parking lot west of the PHSB, where



FIGURE 14. BUILDING 1801, EXISTING CONDITIONS

Source: Presidio Trust, 2006



FIGURE 15. VIEW LOOKING NORTH FROM THE CENTRAL GREEN, EXISTING CONDITIONS

Source: Presidio Trust, 2006



FIGURE 16. VIEW TOWARD BATTERY CAULFIELD, EXISTING CONDITIONS

Source: Presidio Trust, 2006

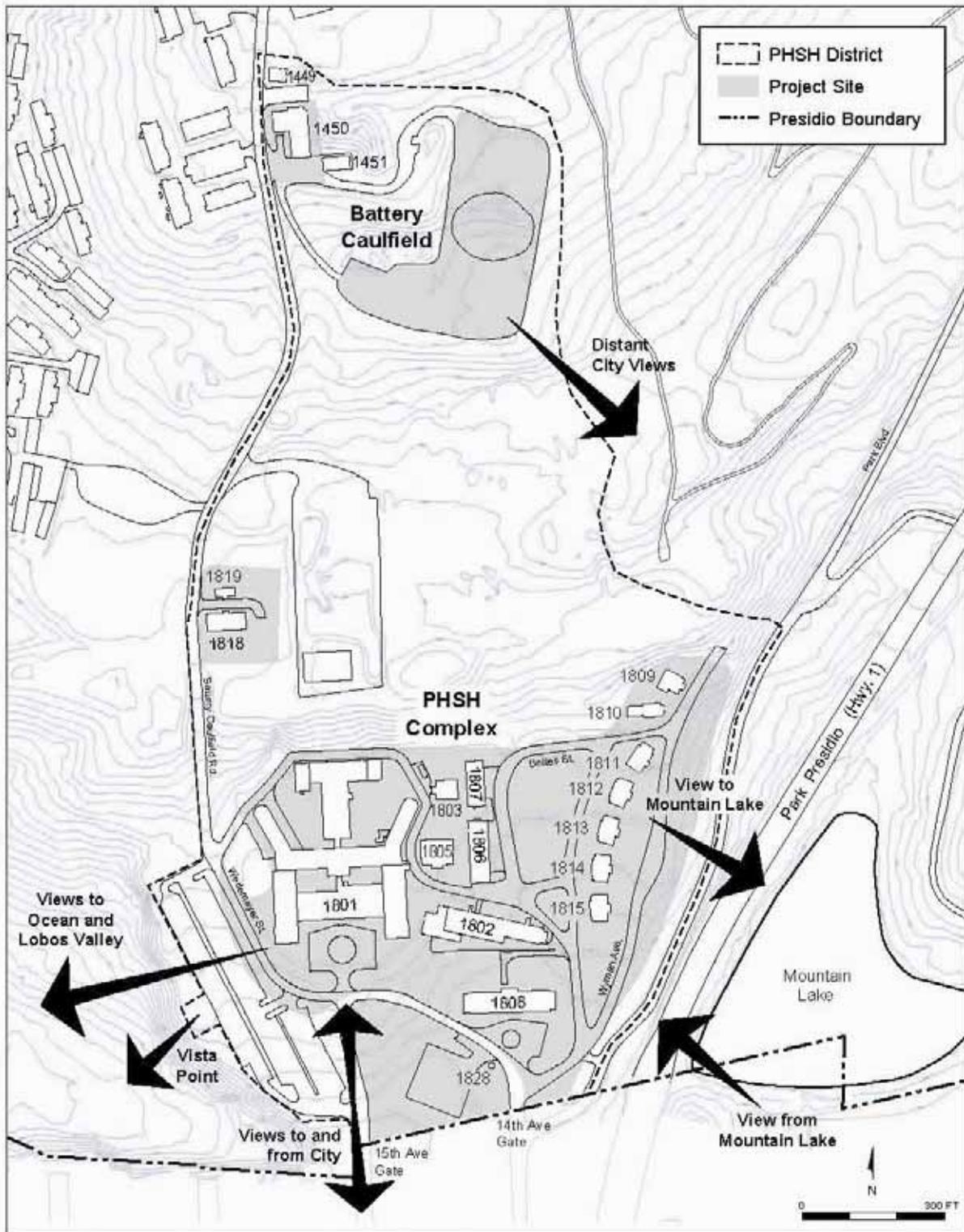


FIGURE 17. IMPORTANT VIEWS TO AND FROM THE PHS DISTRICT

Source: Presidio Trust, 2006

the Presidio Trails and Bikeways Master Plan calls for development of a scenic vista point to take advantage of spectacular views of Lobos Valley and the Pacific Ocean. Looking east, views from upper stories of the PHSH hold Mountain Lake in their foreground with an urban panorama of the city's neighborhoods beyond.

3.7.2 ENVIRONMENTAL CONSEQUENCES

The potential impacts on visual resources due to use and development within the Presidio are assessed on pages 247 to 252 of the PTMP EIS. No impacts specific to the PHSH district were identified, and the analysis concluded that the visual character of the Presidio would not be substantially altered. This analysis is supplemented below with an assessment of the issues specific to the alternatives being considered for the PHSH project.

3.7.2.1 Requested No Action Alternative

The Requested No Action Alternative would fail to address the noticeable deterioration of buildings and surrounding landscapes in the PHSH district. Some buildings would be occupied, but most would remain vacant and boarded up. Views to and from the site would not change appreciably, although other planned projects, such as construction of trails, construction of a scenic overlook west of the PHSH, remediation of old Army landfills, and enhancement of natural areas between the lower plateau and Battery Caulfield, would result in some visual improvements. The non-historic wings of the PHSH would remain in place and would be secured against deterioration and vandalism to the extent feasible. The same would apply to the houses along Wyman Avenue that are viewed from Park Presidio Boulevard.

3.7.2.2 Alternative 1: PTMP Alternative

By rehabilitating and reusing existing buildings, improving the surrounding landscape, and accommodating planned access and open space improvements, Alternative 1 would positively affect the visual character of the PHSH district. Chain link fencing on the lower plateau would be removed, damaged building fabric would be repaired or replaced in kind, parking areas would be re-landscaped, and open space areas would be improved.

The views to and from the PHSH district shown in Figures 15 to 17 would not change dramatically as a result of Alternative 1, because all historic and non-historic elements would be retained and no new construction would occur. However, the planned use of 14th Avenue as an entrance to the PHSH district would reemphasize motorists' view toward Building 1808 upon arrival to the site.

Similar to the Requested No Action Alternative, Alternative 1 would retain the non-historic wings of the main hospital building, but Alternative 1 would improve their appearance by replacing or repairing damaged façade materials.

New activity on the site would mean an increase in lighting, both within buildings and within adjacent parking areas and landscape zones. Lighting levels associated with new housing would not exceed levels experienced in the surrounding neighborhood, although because of the size of the hospital building, its

lighted windows would be visible from several blocks south on 15th Avenue. Exterior lighting would be focused downward, and conformance with PTMP EIS Mitigation Measure NR-7 *Artificial Light* would minimize related impacts.²⁶

3.7.2.3 Alternative 2: Wings Retained / Trust Revised Alternative

Similar to Alternative 1, Alternative 2 would rehabilitate and reuse existing buildings, improve the surrounding landscape, and accommodate planned access and open space improvements, positively affecting the visual character of the PHSB district. Chain link fencing on the lower plateau would be removed, damaged building fabric would be repaired or replaced, parking areas would be re-landscaped, and open space areas would be improved. In addition, Alternative 2 would re-clad the non-historic wings of the PHSB and would remove the central loggia and lobby structure connecting the non-historic wings of the building, revealing the principal façade of the historic building (see Figure 18). These changes would represent beneficial visual impacts above and beyond the beneficial impacts described for Alternative 1 above.

Views to and from the PHSB district would not change dramatically, although re-cladding the non-historic wings of the PHSB would remove the blue façade material, which is jarring to some contemporary viewers, and removing the central loggia/lobby would reduce the visual bulk of the building when viewed from the south. Introduction of underground parking would increase green space, particularly in front of the PHSB. In addition, the planned use of 14th Avenue as an entrance to the PHSB district would reemphasize motorists' view toward Building 1808 upon arrival to the site.

New activity on the site would result in an increase in lighting, both within buildings and within adjacent parking areas and landscape zones. Interior lighting within area buildings would be visible from surrounding areas, but would not exceed levels common and accepted in residential neighborhoods, although the size of the building would mean that lighted windows would be visible from several blocks south on 15th Avenue. Exterior lighting would be focused downward, and conformance with PTMP EIS Mitigation Measure NR-7 *Artificial Light* would minimize related impacts.

3.7.2.4 Alternative 3: Wings Removed Alternative

Similar to Alternative 1 and Alternative 2, Alternative 3 would rehabilitate and reuse existing buildings, improve the surrounding landscape, and accommodate planned access and open space improvements, positively affecting the visual character of the PHSB district. Chain link fencing on the lower plateau would be removed, damaged building fabric would be repaired or replaced, parking areas would be re-landscaped, and open space areas would be improved. In addition, Alternative 3 would remove non-historic additions to the PHSB, dramatically changing the building's appearance (see Figure 19). This would represent a beneficial visual impact above and beyond those described for Alternatives 1 and 2 above.

²⁶ See Appendix A, Response to Comment A.6.2 Analysis of Visual Resources and Lighting for an expanded discussion of lighting, including applicability of local and state lighting standards.



FIGURE 18. BUILDING 1801, ALTERNATIVE 2 (Non-historic Wings Remain)

Source: Presidio Trust, 2006



FIGURE 19. BUILDING 1801, ALTERNATIVES 3 AND 4 (Non-historic Wings Removed)

Source: Presidio Trust, 2006

Other views to and from the PHSB district shown in Figures 15 to 17 would not change dramatically as a result of Alternative 3, because no new construction would occur. Removal of the non-historic wings of the main hospital would increase green space in front of the PHSB. Also, the planned use of 14th Avenue as an entrance to the PHSB district would reemphasize motorists' view toward Building 1808 upon arrival to the site.

New activity on the site would increase lighting, both within buildings and within adjacent parking areas and landscape zones. Interior lighting would be visible but not intrusive when viewed from adjacent areas. Lighted windows would be visible from several blocks south on 15th Avenue, but with removal of the non-historic wings, the windows would be about 100 feet (about one quarter of a block) farther away from the viewer than in Alternatives 1 and 2. Exterior lighting would be focused downward, and conformance with PTMP EIS Mitigation Measure NR-7 *Artificial Light* would minimize related impacts.

3.7.2.5 Alternative 4: Battery Caulfield Alternative

Similar to Alternatives 1, 2, and 3, Alternative 4 would rehabilitate and reuse existing buildings, improve the surrounding landscape, and accommodate planned access and open space improvements, positively affecting the visual character of the PHSB district. Chain link fencing on the lower plateau would be removed, damaged building fabric would be repaired or replaced, parking areas would be re-landscaped, and open space areas would be improved. Similar to Alternative 3, non-historic additions to the PHSB would be removed, dramatically changing the building's appearance (see Figure 19). New residential construction would be introduced at the north end of the Central Green on the lower plateau (see Figure 20). Finally, Alternative 4 would also introduce new residential construction at Battery Caulfield (see Figure 21).

Removal of non-historic additions to the front of the main hospital would represent a beneficial visual impact, when compared to the Requested No Action Alternative and Alternatives 1 and 2, because the historic façade of the main hospital building would be more visible. Also, removal of the non-historic additions would increase green space in front of the PHSB. Similar to Alternative 2, new construction on the lower plateau would be designed to conform to PTMP planning district guidelines and to be compatible with nearby historic buildings.

New construction on the upper plateau would replace heavy equipment, stock-piled soil, and other materials, and would be scaled to be compatible with nearby Building 1450 and nearby non-historic housing. Buildings would step up the site using existing grades and would not exceed two stories in height. The presence of residential buildings at Battery Caulfield would change the visual appearance of the area as well as distant views to and from the upper plateau. Changes to distant views would be mitigated to a large extent by the forested area immediately behind the PHSB, which provides a backdrop for the building and a visual buffer between the lower and upper plateaus.

As in other alternatives, the planned use of 14th Avenue as an entrance to the PHSB district would reemphasize motorists' view toward Building 1808 upon arrival to the site, and the planned construction



FIGURE 20. VIEW LOOKING NORTH FROM THE CENTRAL GREEN, ALTERNATIVE 4

Source: Presidio Trust, 2006



FIGURE 21. VIEW TOWARD BATTERY CAULFIELD, ALTERNATIVE 4

Source: Presidio Trust, 2006

of a scenic overlook west of the PHSH would emphasize pedestrians' view toward Lobos Valley and the Pacific Ocean.

New activity on the site would mean an increase in lighting, both within buildings and within adjacent parking areas and landscape zones. Interior building lighting on the lower plateau would be visible but not intrusive when viewed from adjacent areas, similar to Alternative 3. On the upper plateau, interior lighting would resemble that associated with existing dwelling units west of Battery Caulfield Road. Exterior lighting would be focused downward, and conformance with PTMP EIS Mitigation Measure NR-7 *Artificial Light* would minimize related impacts.

3.7.2.6 Park Presidio Boulevard Access Variant

The addition of direct access between the PHSH district and Park Presidio Boulevard under Alternatives 1, 2, 3, or 4 would involve modifications to existing landscaping, roads, and possibly retaining walls in the immediate area but would not substantially change the visual character of the PHSH district. The new, signalized intersection would be used mostly by traffic exiting the district, and motorists would be treated to a view of Mountain Lake to the east. Recreational users within Mountain Lake Park and adjacent areas of the Presidio may be able to see the new traffic signal, but their auditory and visual experience is already largely informed by Park Presidio Boulevard traffic, and this would not change.

3.7.2.7 Cumulative Effects

When considered in combination with planned improvements within the Presidio, all action alternatives for the PHSH district would result in positive visual changes due to their emphasis on rehabilitating and reusing buildings on the site and their contribution to landscaping and other site improvements.

New buildings would be sited and scaled to avoid substantial visual impacts, and increases in lighting would be monitored as agreed to during the PTMP environmental review process. Even Alternative 4, which would add new buildings on the site of a Trust and NPS maintenance yard, would represent a positive visual change when viewed in the context of the PTMP's commitment to remove non-historic housing west of Battery Caulfield Road over time, thereby increasing open space in the park by about 100 acres.

3.7.3 MITIGATION MEASURES

No significant impacts related to visual resources have been identified. No mitigation measures for visual resources were identified in the PTMP EIS, and no additional measures have been identified. (Mitigation Measure NR-7, listed at the end of Section 3.12, Biology, addresses artificial lighting and will be adopted as a condition of approval.)

3.8 Visitor Use

3.8.1 AFFECTED ENVIRONMENT

The visitor experience, including interpretation/information facilities, interpretation programs, visitor facilities, visitor services, and park-based programs, are described on pages 158 to 161 of the PTMP EIS. This description is incorporated here by reference, and portions relevant to the PSHH district are summarized below and expanded upon as necessary.

3.8.1.1 Existing Presidio-Wide Visitor Facilities, Services, and Programs

The Presidio as a whole has a number of facilities geared to park visitors, ranging from the NPS visitor center to informational kiosks and wayside signs, meeting venues, exhibition halls, and single-purpose facilities like the park archives and the archaeology lab. The park also has a number of existing services, events, and programs offered to visitors by the NPS, the Trust, and Presidio tenants.

Primary visitor destinations within the Presidio include Crissy Field (Area A) and Baker Beach, meeting and exhibition venues such as the Officers' Club and the Golden Gate Club, and recreational facilities such as the Presidio Golf Course, the YMCA, and the trails and bikeways throughout the park. In total, the Trust estimates that the Presidio receives approximately 4.6 million visitors a year, including 2.6 million within the area under Trust jurisdiction (Area B). The 4.6 million visitors represent more than 25 percent of the visitors to the entire Golden Gate National Recreation Area as a whole (including Muir Woods, Fort Point, and the Maritime Museum).²⁷

3.8.1.2 Existing and Planned Facilities, Services, and Programs in the PSHH District

The PSHH district currently contains few visitor amenities. The district is used by visitors associated with the tenants in the district (e.g., Arion Press) and visitors who are aware of existing trails in the area. These trails connect the PSHH district to Mountain Lake on the east and Lobos Valley on the west, and pass through the abundant bird habitat in the Nike Swale area below Battery Caulfield. Areas of both the lower and upper plateaus, including areas around unoccupied buildings and around the Nike Swale, are currently fenced to prevent access. Visitor orientation is provided at an informational kiosk uphill from the 15th Avenue Gate.

In the future, the number of trails and the number of visitor programs and amenities are projected to increase in conformance with the PTMP and the Presidio Trails and Bikeways Master Plan adopted in 2003. Specifically, the existing trails will be extended to provide better connections to adjacent areas of the Presidio, and a trailhead and scenic overlook will be developed west of the PSHH. The trailhead may include a public restroom, as well as informational signs. Other informational and interpretive signs will be provided throughout the PSHH district, and signs, an exhibit, and/or a landscape treatment will commemorate the site of the former Marine Hospital Cemetery behind Building 1801.

²⁷ Trust and NPS estimates cited in the PTMP EIS, Volume 1, page 158.

3.8.2 ENVIRONMENTAL CONSEQUENCES

The potential impacts on the visitor experience due to use and development within the Presidio are assessed on pages 292 to 296 of the PTMP EIS. No impacts are identified within the PSHH district. Overall, the number of park visitors is projected to increase to 7.2 million annually in Area B.

3.8.2.1 Requested No Action Alternative

The Requested No Action Alternative would leave much of the lower plateau in the PSHH district unimproved and off-limits to visitors. Fencing around the main hospital building would remain, and the building would be boarded up, as would the Wyman Avenue houses. Both areas would be visible from the Park Boulevard Trail, which would extend through the site in conformance with the Presidio Trails and Bikeways Master Plan. In general, the deteriorated condition of the area under the Requested No Action Alternative would continue to detract from the use and enjoyment of surrounding areas of the park.

3.8.2.2 Alternative 1: PTMP Alternative

Rehabilitation and reuse of buildings in the PSHH district would improve the attractiveness of the area and therefore enhance the visitor's experience. Alternative 1 would also facilitate and not preclude planned improvements related to trails and bikeways, interpretation, and other aspects of the visitor experience, resulting in beneficial impacts. Following the construction period, open space areas on the lower plateau would be opened to the public, as would the lobby of Building 1801.

Interpretive materials would be provided within the lobby of Building 1801, at key locations throughout the lower plateau, at Battery Caulfield, and at the site of the former Marine Hospital Cemetery. Visitor orientation would be provided via one or more kiosks near park entrances, as well as informational signs at the scenic overlook and trailhead planned for west of the PSHH.

Arion Press would continue to offer its current array of public programs and exhibitions, and new education-related tenants would also offer programs to park visitors and residents. The Trust or the NPS would offer periodic tours or site walks, and stewardship (volunteer) activities would continue at the Nike Swale, adjacent natural areas, and the area known as "Quail Commons" north of Battery Caulfield. Battery Caulfield itself would remain fenced and off-limits to the public for an indefinite period because it would remain in use as a maintenance yard.

Residential and educational uses in Alternative 1 would dramatically increase the level of activity at the site when compared to the Requested No Action Alternative, particularly during the daytime when students associated with educational uses are present. Some of this activity could spill over into adjacent areas of the Presidio if students and residents take advantage of trails and open space in the area. Mitigation measures from the PTMP EIS would ensure that visitation levels are monitored and management controls implemented if necessary to protect park resources. Sufficient parking and access would be provided so that tenant activities would not preclude visits by the general public, and visitors could expect to feel safer than they do today because there would be fewer vacant buildings and more

activity. In general, increased use and visitorship are viewed as positive consequences of the Presidio's transfer from the Army to active civilian use.

3.8.2.3 Alternative 2: Wings Retained / Trust Revised Alternative

Similar to Alternative 1 and unlike the Requested No Action Alternative, Alternative 2 would have beneficial effects on the visitor experience because it would rehabilitate and reuse buildings in the PSHH district, making the park more appealing to visitors. Alternative 2 would also facilitate and not preclude planned improvements related to trails and bikeways, interpretation, and public programming. Following the construction period, all open space areas on the lower plateau would be opened to the public, with the exception of areas immediately behind Building 1801. The lobby of Building 1801 would also be open to the public.

Interpretive materials would be provided within the lobby of Building 1801, at key locations throughout the lower plateau, at Battery Caulfield, and at the site of the former Marine Hospital Cemetery. Visitor orientation would be provided via one or more kiosks near park entrances, as well as informational signs at the scenic overlook and trailhead planned for west of Building 1801.

Arion Press would continue to offer its current array of public programs and exhibitions, and the Trust or the NPS would offer periodic tours or site walks. Stewardship (volunteer) activities would continue at the Nike Swale, adjacent natural areas, and Quail Commons. Battery Caulfield itself would remain fenced and off-limits to the public for an indefinite period because it would remain in use as a maintenance yard.

Alternative 2 would have more residents than Alternatives 1, 3, or 4, but would generate less overall activity on the site than Alternative 1. Residents and associated visitors would be expected to take advantage of trails and open space in the area, but the presence of these residents and visitors would not preclude visits by the general public. Based on San Francisco averages, about 60 of the residents in Alternative 2 would be school-age children (about half of them below the age of 10), some of whom could make use of playgrounds at Mountain Lake Park, Julius Kahn Playground, and elsewhere in the Presidio. Children and other park visitors could expect to feel safer than they do today because there would be fewer vacant buildings and more activity at the site. Mitigation measures from the PTMP EIS would ensure that visitation levels are monitored and management controls implemented if necessary to protect park resources. In general, increased use and visitorship are viewed as positive consequences of the Presidio's transfer from the Army to active civilian use.

3.8.2.4 Alternative 3: Wings Removed Alternative

Similar to Alternatives 1 and 2, Alternative 3 would have beneficial effects on the visitor experience because it would rehabilitate and reuse buildings in the PSHH district, improving the appearance of the area and therefore the visitor experience. Alternative 3 would also facilitate and not preclude planned improvements related to trails and bikeways, interpretation, and public programming. Following the construction period, all open space areas on the lower plateau would be opened to the public, with the exception of areas immediately behind Building 1801. The lobby of Building 1801 would also be open to the public.

Interpretive materials would be provided within the lobby of Building 1801 and at key locations throughout the lower plateau, at Battery Caulfield, and at the former Marine Hospital Cemetery. Visitor orientation would be provided via one or more kiosks near park entrances, as well as informational signs at the scenic overlook and trailhead planned for west of Building 1801.

Arion Press would continue to offer its current array of public programs and exhibitions, and the Trust or the NPS would offer periodic tours or site walks. Stewardship (volunteer) activities would continue at the Nike Swale, adjacent natural areas, and Quail Commons. Battery Caulfield itself would remain fenced and off-limits to the public for an indefinite period because it would remain in use as a maintenance yard.

Alternative 3 would incrementally increase the level of activity at the site when compared to the Requested No Action Alternative, but would include more residents and fewer educational uses, so activity on the site would be less concentrated during the daytime. The presence of residents and associated visitors would not preclude visits by the general public, and the public would tend to feel safer when vacant buildings are occupied. Mitigation measures from the PTMP EIS would ensure that visitation levels are monitored and management controls implemented if necessary to protect park resources. In general, increased use and visitorship are viewed as positive consequences of the Presidio's transfer from the Army to active civilian use.

3.8.2.5 Alternative 4: Battery Caulfield Alternative

Similar to Alternatives 1, 2, and 3, Alternative 4 would have beneficial effects on the visitor experience because it would rehabilitate and reuse buildings in the PHS district, improving the appearance of the lower plateau. Alternative 4 would also facilitate and not preclude planned improvements related to trails and bikeways, interpretation, and public programming. Following the construction period, all open space areas on the lower plateau would be opened to the public, with the exception of areas immediately behind Building 1801. The lobby of Building 1801 would also be open to the public.

Alternative 4 would convert the maintenance yard at Battery Caulfield to use as a residential area, providing some accessibility for visitors. Interpretive materials would be provided within the lobby of Building 1801 and at key locations throughout the lower plateau, at Battery Caulfield, and at the former Marine Hospital Cemetery. Visitor orientation would be provided via one or more kiosks near park entrances, as well as informational signs at the scenic overlook and trailhead planned for west of the PHS.

Arion Press would continue to offer its current array of public programs and exhibitions, and the Trust or the NPS would offer periodic tours or site walks. Stewardship (volunteer) activities would continue at the Nike Swale, adjacent natural areas, and Quail Commons.

Alternative 4 would increase the level of activity on the site when compared to the Requested No Action Alternative, but would generate less overall activity than most other alternatives. Some of this activity could spill over into adjacent areas of the Presidio if residents take advantage of trails and open space in the area as expected. Spillover activity in sensitive habitat areas around Battery Caulfield would require particular attention as the Trust implements mitigation measures from the PTMP EIS designed to ensure

that visitation levels are monitored and management controls implemented if necessary to protect park resources. In general, increased use and visitorship are viewed as positive consequences of the Presidio's transfer from the Army to active civilian use.

3.8.2.6 Park Presidio Boulevard Access Variant

Providing direct vehicular access between Park Presidio Boulevard and the PSHH district would increase the accessibility of the park, which would be an improvement for park visitors arriving (and departing) by auto. Pedestrians and bicyclists would be prohibited from using the new intersection, but would experience safety improvements at the nearby intersection of Lake Street and Park Presidio Boulevard.

Provision of the new access would necessitate adjustments to the south end of Park Boulevard, a multi-use trail and service road that connects the PSHH district to Mountain Lake. Pedestrians would be routed to sidewalks and crosswalks in the vicinity of Building 1808, and bicyclists would be routed to local roads and/or a multi-use trail connection providing east-west access across the lower plateau as shown in the Presidio Trails and Bikeways Master Plan.

3.8.2.7 Cumulative Effects

When combined with improvements anticipated throughout the Presidio as part of the PTMP, the GMPA (for shoreline portions under NPS jurisdiction), and the Presidio Trails and Bikeways Master Plan, the PSHH project would improve the visitor experience. Improvements would include increased access within developed areas of the park, improved trails and bikeways, additional interpretive and orientation materials, and additional opportunities for park programs provided by the Trust, the NPS, and park tenants.

Increased levels of activity and park visitorship associated with improvements in the PSHH district would fall well within cumulative levels described and analyzed in the PTMP EIS.

3.8.3 MITIGATION MEASURES

The following mitigation measures are adapted from the PTMP EIS section regarding the visitor experience and were adopted as conditions of approval at the end of the PTMP planning and environmental review process. Implementation of these measures will address the proposed action's contribution to potentially significant cumulative impacts in all alternatives.

CO-4 Limitation of Visitor Opportunities – The Trust will limit visitor opportunities to those that are suited and appropriate to the significant natural, historic, scenic, cultural, and recreational resources of the Presidio. Only those visitor activities that are consistent with the Trust Act and appropriate to the purpose for which the park was established will be allowed. The Trust will welcome tenants to provide activities consistent with these requirements.

CO-5 Prohibitions on Visitor Use – The Trust will prohibit visitor uses that impair park resources or values or unreasonably interfere with NPS interpretive activities or other existing, appropriate park uses.

CO-6 *Management Controls* – The Trust will impose management controls on visitor uses, if necessary, to ensure that the Presidio’s resources are protected. If an ongoing or proposed activity would cause unacceptable impacts on park resources, adjustments would be made to the way the activity is conducted, including placing limitations on the activity, so as to eliminate unacceptable impacts. Any restrictions would be based on professional judgment, law and policy, the best available scientific study or research, appropriate environmental review, and other available data. As visitor use changes over time, the Trust will decide if management actions are needed to keep use at acceptable and sustainable levels.

CO-7 *Monitoring of Visitor Levels* – The Trust will monitor visitation levels to ensure that park uses do not unacceptably affect Presidio resources, including visitor experience. Visitor carrying capacities for managing visitor use will be identified if necessary.

NR 14 *Visitor Management* – The Trust will monitor visitor numbers and use in the vicinity of the wetlands on the upper plateau (Nike Swale area) and will take steps to reduce or eliminate related impacts as necessary. Informational leaflets, signs, and regulatory measures will be employed as necessary.

3.9 Utilities and Services

3.9.1 AFFECTED ENVIRONMENT

The Presidio’s infrastructure and utilities are described on pages 184 to 192 of the PTMP EIS. Public safety-related services are described on pages 166 and 167. These descriptions are summarized and expanded upon below, where relevant to the PSHH district.

3.9.1.1 Water Supply and Demand

The Trust operates a facility that treats water from nearby Lobos Creek to provide potable water to the park under permit from the California Department of Health Services (DHS).²⁸ Supplemental water is purchased from the City and County of San Francisco (CCSF) as needed. Similar to Presidio supplies, the amount of CCSF water used varies significantly based on the type of water year. Between 1999 and 2003, CCSF provided between 6 and 18 percent of the total water consumed at the park, and the remainder was provided by Lobos Creek. During this period, use of CCSF water ranged from 0 gallons per day in the winter and spring to 1 million gallons per day (mgd) at the peak of the dry season.

The San Francisco Public Utilities Commission (SFPUC), the CCSF department that provides water to San Francisco and surrounding communities, estimates that the current total demand for water from its system is between 90 and 91 mgd (SFPUC 2005a). The SFPUC identifies the Presidio as an “in-city customer/non-residential” and therefore historical water use and projected water demands of Area B are included in its Urban Water Management Plan (SFPUC 2005b; personal communication with Paula Kehoe, Manager of Water Resources Planning, Water Enterprise, San Francisco Public Utilities

²⁸ Provision 11 of the permit stipulates that, to help protect water quality within the Lobos Creek Valley, the use of reclaimed water within the PSHH district is prohibited (DHS 1997).

Commission 2006). These projections are based on the CCSF Planning Department's Land Use Allocation 2002 (CCSF 2003), which takes into account projected future development within the Presidio. Because the Presidio is a retail customer, the purchase and use of water from the SFPUC is subject to its water shortage regulations, including mandatory water rationing programs and rate structures adopted during drought conditions.

The Trust is committed to reducing the demand for off-site water resources by conserving water and by implementing water recycling in northern and eastern sections of the park (see PTMP, page 55). Phase one of the Trust's water recycling plant, which is currently under construction, will provide approximately 200,000 gallons per day (gpd) for irrigation purposes, reducing dependence on Lobos Creek and CCSF water.

The PHSB site receives water from the Trust system from the north and the CCSF system to the south. Presently, one of the three CCSF lines, a 10-inch line entering the site from 15th Avenue, serves as a fire connection with 70 pounds per square inch (psi) of static hydrant pressure. The CCSF water system is in fair to good condition.

Based on water demand estimates developed for the PTMP EIS, current average daily water use within the PHSB district is 6,800 gallons. The PTMP EIS estimates that the future Presidio-wide average daily demand for water would be 1.22 million gallons.

3.9.1.2 Wastewater Treatment and Disposal and Storm Drainage

The PHSB district is located within the sewered tributary area of the CCSF (CCSF 1990). All of the on-site sanitary sewer and storm drain pipelines from the PHSB district run south to the CCSF combined sewer system in either 14th Avenue or 17th Avenue and then to the Richmond Transport. Constructed by the CCSF in 1996, the Richmond Transport is a regional wastewater conveyance facility serving portions of the Richmond district, Western Addition and Golden Gate Park, as well as the PHSB district. The facility was designed to reduce the annual number of combined sewer overflows (CSO) into San Francisco Bay at Baker and China Beaches. The Richmond Transport project was based on flow estimates from the CCSF's Master Plan for Wastewater Management (CCSF 1971).

The Richmond Transport and downstream Westside Transport, which was constructed by the CCSF prior to the Richmond Transport, route wastewater to the CCSF's Oceanside Water Pollution Control Plant (OSP), the CCSF's newest treatment plant that treats wastewater from the western side of the city. OSP meets all federal and state discharge standards. Approximately 95 percent of the pollutants are removed from the wastewater stream before discharge into the Pacific Ocean through the 4.5-mile Southwest Ocean Outfall. During peak wet weather, OSP treats 60 mgd from the city's west side. Average dry weather flow is approximately 17.5 mgd. OSP has a maximum treatment plant capacity of 65 mgd.

Given their age, the joints of the sewer mains within the PHSB district may allow inflow and infiltration, which could increase flows to OSP during the wet season.

Based on estimates developed in the PTMP EIS, current average daily wastewater flows within the PHSB district are 6,000 gpd. The PTMP EIS estimates that the Presidio is expected to generate 0.65 mgd annually at full occupancy.

Most of the on-site storm water piping is in good condition; however, several sections are crushed and in need of repair. The PHSB district does not typically experience flooding problems.

The CCSF's Master Plan for Wastewater Management assigned an average runoff coefficient of 0.54 for the area tributary to the Richmond Transport (including the PHSB district). Using the 0.54 factor and assuming a 10-year, 30-minute storm with an intensity of 0.7 inches per hour, the estimated peak flow from the PHSB district that was incorporated in the planning for the Richmond Transport is 15.4 cubic feet per second (cfs). The 1994 Presidio Stormwater Management Plan (Stormwater Plan), which is the basis of the PTMP EIS storm drainage analysis, assigned a runoff coefficient of 0.40 to the PHSB district. Using the same design storm, the estimated peak flow from the PHSB district is 11.4 cfs.

3.9.1.3 Solid Waste

The Trust handles solid waste disposal through contracts with the Golden Gate Disposal and Recycling Company, a subsidiary of Norcal Waste Systems, Inc. Currently, the Presidio generates approximately 2,250 tons of waste per year. Discards are delivered to a transfer station run by Sanitary Fill Company, which is also owned by Norcal Waste Systems, Inc. Close to 90 percent of the waste is transferred from Norcal Waste System Inc.'s transfer station to Waste Management Inc.'s Altamont Landfill, located in Alameda County 62 miles southeast of San Francisco. The balance of the waste ends up in 15 to 20 other landfills in the region. At the current rate of disposal, the Altamont Landfill capacity is sufficient through 2008. However, if the region's diversion rate increases to 50 percent by 2005, this will extend the capacity of the landfill until 2011.²⁹

Based on estimates developed by Golden Gate Disposal and the Trust in coordination with the CCSF, Presidio residents are expected to generate 3,400 tons per year at full occupancy.³⁰ To minimize the park's impact on the solid waste stream, the Trust has initiated a comprehensive waste reduction and recycling program that includes recycling, outreach and education, and in-house salvage, compost, and regeneration programs. The program received a WasteWise Program Champion Award from the EPA. According to the EPA and Golden Gate Disposal, in 2002 the Presidio diverted over 67 percent (1,500 tons of material, including organics) from the waste stream, which is comparable to the CCSF's current diversion rate (CCSF 2005).

3.9.1.4 Gas System

Pacific Gas and Electric Company (PG&E) owns and maintains the gas infrastructure at the Presidio, including the PHSB district. An existing high-pressure gas line extends from 14th Avenue into the PHSB

²⁹ According to latest preliminary data available from the California Integrated Waste Management Board (CIWMB), the Bay Area's diversion rate in 2004 was 47 percent (CIWMB 2006).

³⁰ Based on the average amount of garbage generated in a single-family home in San Francisco: 35 pounds per week or approximately 1,800 pounds per year.

district and fires a boiler system at Building 1802. Based on estimates developed for the PTMP EIS, Presidio-wide development under the PTMP would generate demand for up to 2.30 million therms of natural gas annually.

3.9.1.5 Electrical System

PG&E provides high-voltage electric service to the PHSH district. Power comes through the 14th Avenue Gate and feeds Buildings 1801 and 1802, where it is “stepped down” to a usable voltage and delivered to other buildings within the PHSH district. PG&E recently installed a 12,000-volt line at 14th Avenue and Lake Street. PG&E has replaced overhead electric facilities with underground lines on 14th and 15th Avenues and other streets within the Mid-Lake District as part of its Rule 20 Undergrounding Program. The costs for undergrounding will be recovered through electric rates.

Based on estimates developed for the PTMP EIS, up to 50.24 million kilowatt-hours of electricity would be consumed at the Presidio annually at full occupancy.

3.9.1.6 Fire Protection and Emergency Response

Presently, the Presidio Fire Department provides fire prevention and protection, fire suppression, rescue, and emergency medical services to the Presidio through an interagency agreement with the NPS. The Presidio Fire Department maintains two fire stations within the GGNRA, one located on the Main Post and the other in the Marin Headlands. Fire Station 51 (Main Post) houses one engine company, one truck company, one paramedic (advanced life support or ALS) ambulance, and one command vehicle. Each day, between seven and ten firefighters are on duty, with an assistant chief on duty to supervise operations and serve as the incident commander. In 2003, the Presidio Fire Department responded to over 1,100 calls for service. Calls for service within Area B numbered 660. Of this number, 90 percent of the calls for service were for emergency medical services.

The National Fire Protection Association (NFPA) establishes the standards, requirements, and recommended practices for fire departments in the United States. The NFPA also establishes the Fire Codes and the Life Safety Codes used by the NPS and the Presidio Fire Department. NFPA 1710 establishes the minimum number of on-duty personnel, the minimum number of fire apparatus, and the minimum response times to areas within the department’s jurisdiction. This standard provides guidance to the Presidio Fire Department and helps shape the department’s planning of present and future deployment of firefighting forces, equipment, and emergency resources.

NFPA 1710 establishes a minimum four-minute response time for all calls for service that involve fire and emergency medical services. The standard requires fire departments to meet the four-minute response time at least 90 percent of the time. In 2003, the Presidio Fire Department reached the four-minute response benchmark 74 percent of the time for fire-related and emergency medical services calls for service generated at the Presidio. This response rate is due greatly to the large response area that is covered by one fire station. The average response time to the Baker Beach Apartments area and the PHSH district is 6.3 minutes. (Average response times take into account travel distance, road conditions, and traffic conditions.) These two areas of the Presidio have been historically deficient in the required

response times and have been managed using risk management practices. Over the past four years, the increase in population in the Baker Beach Apartments area has resulted in an increase in calls for service.

To provide fire suppression and rescue services to incidents that exceed the capability of the Presidio Fire Department, the department has entered into a mutual aid agreement with the San Francisco Fire Department (SFFD) whereby assistance will be provided by SFFD personnel on an “as available” basis at the request of the Presidio Fire Department (CCSF 1994). During the past ten years, there have been only two requests for SFFD assistance in response to fires at Baker Beach Apartments. SFFD fire stations that could be called on to respond to a call at the PHSH district include Station 31 at 12th Avenue/Geary Boulevard, Station 14 at 26th Avenue/Geary Boulevard, Station 34 at 41st Avenue/Geary Boulevard, and Station 10 at Presidio Boulevard/California Street. The Presidio Fire Department makes relatively frequent use of City ambulances to back up its medic units, particularly if patients are transported off the Presidio (personal communication with Bert Carlson, NPS Communications Manager).

3.9.1.7 Law Enforcement

Law enforcement services at the Presidio are provided by the U.S. Park Police (USPP) San Francisco Field Office (SFFO) pursuant to an interagency agreement with the Trust, which reimburses the NPS for its service costs. At present, the USPP has an authorized strength of 83 sworn law enforcement positions, and 33 of these authorized positions are dedicated to the Presidio. USPP law enforcement functions include vehicle patrol, motorcycle patrol, foot patrol, horse-mounted patrol, bicycle and trail bike patrol, search and rescue, emergency medical service support, traffic safety, criminal investigations, narcotics enforcement, dispatch, emergency communications, and administrative support. Emergency calls at the Presidio have an average response time of less than three minutes, while the non-emergency response time is less than ten minutes. Area B of the Presidio is divided into two beats patrolled 24 hours a day. Each patrol beat typically has two patrol cars with a single officer. Currently there is no police station available 24 hours a day, only a dispatch center that can be called via 911 to report incidents.

To augment the USPP in special or unusual circumstances, the USPP has entered into a mutual aid agreement with the San Francisco Police Department (SFPD) whereby assistance will be provided by SFPD law enforcement personnel at the request of the USPP (CCSF 2001). During the past ten years, the USPP has not requested the assistance of the SFPD for police action within the Presidio (personal communication with Bert Carlson, NPS Communications Manager). The closest SFPD police station that could respond to a situation requiring USPP assistance is the Richmond Station located at 461 6th Avenue.

Today, most of the building square footage within the PHSH district is unoccupied. The main hospital building is entirely vacant and the lack of occupancy has made it impossible to secure the building from vandalism and theft, which has led to a gradual acceleration of deterioration within the building. Based on a USPP Records Section search, the USPP responded to an average of five calls per week related to vagrancy, vandalism, break-ins, and other incidents within the PHSH district between January 2002 and May 2004 (NPS 2004c).

3.9.2 ENVIRONMENTAL CONSEQUENCES

The demand for utilities and services Presidio-wide is assessed on pages 298 to 301 and pages 328 to 352 of the PTMP EIS. The discussion is incorporated here by reference and supplemented by analysis of issues specific to the PHSH project alternatives under consideration. Table 25 provides a summary of annual utility demands based primarily on demand assumptions by land use from the PTMP EIS.

Table 25. Annual Utility Demands

UTILITY	NO ACTION ALT.	ALT. 1	ALT. 2	ALT. 3	ALT. 4
Water Consumption (gpd)	10,000	71,000	58,000	51,000	43,000
Wastewater Treatment and Disposal (gpd)	9,000	55,000	43,000	37,000	30,000
Solid Waste Generation (tons)					
<i>Construction</i>	0	4,950	5,650	12,000	11,580
<i>Operation (annual)^a</i>	230	600	950	660	570
Natural Gas Usage (thousand therms)	28	164	163	113	148
Electrical Demand (million kWh)	0.49	2.61	1.83	1.24	1.47

Source: CCSF, 1971; Presidio Trust 2002b; CIWMB 2004.

Notes:

^a Based on a generation rate of 0.9 tons per year for residences, 0.0013 tons per square foot per year for cultural/educational use, and 0.0108 tons per square foot per year for other uses.

gpd = gallons per day

kWh = kilowatt-hours

3.9.2.1 Requested No Action Alternative

Water Supply and Demand – Water supply would be sufficient for existing and proposed needs under this alternative. Based on water demand estimates developed for the PTMP EIS, the various land uses associated with this alternative would demand an average of approximately 10,000 gpd annually. Under terms and conditions of their leases, tenants are required to use water efficiently and responsibly, and are kept informed by the Trust of water conservation practices. Upgrades to the existing system would be made as part of routine maintenance or on an as-needed basis.

Wastewater Treatment and Disposal and Storm Drainage – Based on wastewater projections in the PTMP EIS, existing and proposed uses at the PHSH district under this alternative would generate 9,000 gpd of wastewater annually. Sewer lines are adequately sized to handle existing and proposed flows.

Tenants are required by the Trust to practice water conservation to minimize water usage within the PHSB district, which also reduces wastewater generation and flows to the CCSF system.

The existing storm sewer system has sufficient capacity and is adequate to meet the needs of this alternative. Storm water would continue to be directed to the CCSF combined sewer system. Comparing the estimated peak flows developed using the CCSF's Master Plan for Wastewater Management (15.4 cfs) and the 1994 Stormwater Management Plan (11.4 cfs) confirms that the CCSF's combined sewer system has sufficient capacity to accommodate storm runoff from the PHSB district. The Trust would continue to repair or replace damaged piping following routine inspection and maintenance activities.

Solid Waste – This alternative would reuse a portion of the existing buildings within the PHSB district, and no major construction activities are proposed. Therefore, there would be minimal or no impacts on regional landfills due to building demolition, construction, or rehabilitation activities. During operation, this alternative would generate roughly 230 tons of waste per year. Solid waste would be reduced by as much as two-thirds through efficient resource use, recycling and reuse, diversion of organic material from waste, and purchase of products composed of recycled materials.³¹

Gas System – Based on natural gas use projections in the PTMP EIS, this alternative would consume 28 thousand therms of natural gas annually.³² Existing services are adequately sized for this alternative at the project site, although some infrastructure (pipelines and meters) may be upgraded to provide for a more reliable system. Any improvement in the existing services to the site would be the responsibility of PG&E. Under the terms and conditions of tenant leases, tenants are required to practice energy conservation to assist the Trust in meeting its energy efficiency goals.

Electrical System – Under this alternative, based on the projections by land use in the PTMP EIS, up to 0.49 million kilowatt-hours (kWh) of electricity would be consumed at the PHSB district annually. The Trust would rehabilitate old cables and upgrade the system as part of maintenance operations for safety and efficiency. The Trust would require tenants to employ energy conservation practices within the PHSB district to maximize energy efficiency.

Fire Protection and Emergency Response – Under this alternative, there would be no new code-compliant construction, further upgrading of existing structures, correction of structural fire deficiencies in vacant buildings (such as the lack of code-compliant fire escapes or sprinkler systems), or additional installation of detection and suppression systems. No increases in Presidio Fire Department staff, equipment, or facilities would be made. Response time for calls for fire and emergency medical services at the site would most likely remain deficient unless mitigated.

Law Enforcement – Under this alternative, mothballing of unoccupied buildings would include properly securing them from unwanted entry. However, due to the size and location of Building 1801, lack of

³¹ Since the PTMP was prepared, the Presidio's diversion rate of 67 percent (2002-2003 average) has exceeded the PTMP goal of at least 50 percent (email correspondence, Debby Dunn, Marketing and Community Relations, Golden Gate Disposal, December 8, 2003).

³² Based upon a gas index of 0.41 therms per square foot (PTMP EIS, page 348).

regular activities due to partial occupancy of buildings, and difficulties in surveillance monitoring, unwanted intrusion would most likely still occur. Therefore, the buildings' protection from vandals, break-ins and arson could not be guaranteed, and calls for police service at the current level would most likely continue.

3.9.2.2 Alternative 1: PTMP Alternative

Water Supply and Demand – The proposed use of the PSHH district under this alternative is taken into account in the PTMP EIS water demand calculations, and therefore projected water supply would be sufficient for expected needs. Using water demand estimates developed for the PTMP EIS, the various land uses associated with this alternative would demand an average of approximately 71,000 gpd annually, an increase of 64,200 gpd over existing conditions. This average demand represents approximately 5.8 percent of the projected water demand of the Presidio under the PTMP. Water would be primarily fed from the CCSF system with a secondary connection to the Trust system. The physical condition and capacity of the feeds from both systems are generally adequate to serve the project; however, some upgrades and new backflow prevention devices, fire laterals, and meters would be required.

As required by PTMP EIS Mitigation Measure UT-1 *Demand Management Best Management Practices*, this alternative would use water efficiently and responsibly. The water system would be designed to conserve the maximum amount of water. Water-efficient devices would be installed in all structures, and efficient methods would be used for outdoor irrigation.

Wastewater Treatment and Disposal and Storm Drainage – Wastewater generation was projected in the PTMP EIS by applying a 90-percent factor to the domestic water use estimates (non-irrigation demand). The result was compared to current levels to determine impacts on the CCSF's sanitary sewer system, which treats wastewater from the Presidio. Based on wastewater projections in the PTMP EIS, proposed uses at full occupancy in the PSHH district under this alternative would generate 55,000 gpd of wastewater annually. Wastewater generated from the PSHH district would be routed to the CCSF's Oceanside Water Pollution Control Plant, which has sufficient capacity and can absorb wet weather flows better than the Southeast Water Pollution Control Plant.

Existing sewer lines are adequately sized to handle increased flows from development under this alternative. PTMP EIS Mitigation Measure UT-4 *Reduction of On-Site Wastewater Generation* acknowledges that water conservation practices required by PTMP EIS Mitigation Measure UT-1 to minimize water usage within the PSHH district would reduce wastewater generation and flows to the CCSF system.

The existing storm sewer system has sufficient capacity and would be generally functional to meet the needs of this alternative. The runoff generated from Alternative 1 would be equal to or less than the current condition. Storm water would continue to be directed to the CCSF combined sewer system (and not to Lobos Creek), and storm drains along Wyman Avenue would be re-routed directly to the CCSF system (instead of Mountain Lake). Upgrading inlets in key pedestrian areas, limited slip-lining and/or

replacement of damaged piping, and new inlets and piping from new parking areas would be required. Infrastructure improvements would be installed prior to new construction to minimize storm water runoff and comply with existing water quality standards and regulatory requirements (PTMP EIS Mitigation Measure UT-6 *Storm Water Drainage System Upgrades*). Continued use of the maintenance/corporation yard at Battery Caulfield would include improvements to the storm water management and sediment control practices at the site. In addition, designs or measures would be implemented district-wide to minimize impervious surfaces in order to reduce storm water runoff volumes and improve water quality, including using on-site vegetation and landscaping as a filtration and retention system to the extent feasible. Grass, sand, and other porous surfaces would be placed around non-porous surfaces such as asphalt to limit storm water flows (PTMP EIS Mitigation Measure UT-7 *Storm Water Reduction*).

During construction activities, best management practices would be used to prevent erosion, surface runoff, and siltation of downstream water bodies (PTMP EIS Mitigation Measure NR-15 *Best Management Practices*).

Solid Waste – The impacts of demolition, construction, and rehabilitation activities in the PSHH district on the regional waste stream are analyzed in the PTMP EIS. Based on solid waste estimates developed for the PTMP EIS, building rehabilitation within the PSHH district under this alternative would result in the disposal of up to 4,950 tons of debris. Impacts on regional landfills would be substantially reduced by adaptively reusing all existing buildings (minimizing materials use and eliminating almost all demolition waste) and by recycling waste generated during construction to the maximum extent feasible as required by PTMP EIS Mitigation Measure UT-8 *Waste Diversion*. Waste recycling would include developing and implementing a construction and demolition debris management plan with the aim to divert up to 75 to 80 percent of construction waste from landfills as demonstrated by the Letterman Digital Arts project.

During operation, this alternative would generate roughly 600 tons of waste per year. Solid waste would be reduced by as much as two-thirds through efficient resource use, recycling and reuse, diversion of organic material from waste, and purchase of products composed of recycled materials.

Gas System – The PTMP EIS takes into account the natural gas demand of this alternative. Based on the natural gas use projections of the proposed use (by square foot) within the PTMP EIS, this alternative would consume 164 thousand therms of natural gas annually. Existing services are adequately sized for the proposed development at the project site, although some upgrades to the infrastructure may be required. The development would adopt the principles of sustainable design and technology, and conservation measures would be implemented to minimize natural gas usage (PTMP EIS Mitigation Measure UT-13 *Energy Conservation*).

Any improvement in the existing gas services to the site would be the responsibility of PG&E. If required, replacement of older gas lines in the streets in the adjacent neighborhoods with modern new piping (that is more resistant to corrosion and earth movement) would temporarily inconvenience affected residences. PG&E would attempt to keep disruption to a minimum. PG&E representatives would notify property owners prior to construction. Traffic, parking restrictions, and some noise and dust would be the greatest concerns. Construction may take several weeks to complete and may necessitate different heavy

equipment and construction techniques to facilitate the work, depending on the location of other underground facilities and soil conditions. Temporary parking restrictions may be imposed in the construction areas, for which "No Parking" signs would be posted in the affected areas at least 72 hours in advance. This would allow work to flow at a productive rate and be completed in a shorter time. Steel plates would be used to temporarily cover excavation and trenches. Construction materials such as soil, asphalt, and pipe may be left on streets to eliminate delivery by extra equipment. Jobsites would be secured every night to restore as much normalcy as possible. Interruption of gas services would be minimal, and may require relighting of pilot lights on any affected gas appliance once the gas is restored following installation and testing of pipelines. Streets under repair would be left covered with temporary asphalt during the initial phase of construction, and then permanently paved. Streets and sidewalks would be restored to their pre-existing conditions.

Electrical System – The potential impacts of this alternative on electrical use were analyzed in the PTMP EIS. The estimated square footage for proposed land uses under this alternative was used to project the electrical use and demand. Based on the projections by land use in the PTMP EIS, up to 2.61 million kilowatt-hours (kWh) of electricity would be consumed at the PHSH district annually. PG&E representatives have indicated that current feeds into the PHSH district would be adequate to meet future power loads (personal communication with Lawrence Ng, Senior Project Manager [Rule 20] San Francisco Project Services, and Gordon Duhon, Senior Program Manager, Commercial New Construction Program Customer Energy Management). The Trust's private development partner(s) would work directly with the Trust (or PG&E)³³ to upgrade the electrical system serving the PHSH district for safety and efficiency, including repair and rehabilitation of old cables and, where possible, undergrounding of overhead lines. Replacement of overhead electric facilities with underground lines on 14th and 15th Avenues as part of PG&E's undergrounding program (which would also serve the project) could temporarily inconvenience adjacent residences (see discussion under "Gas System" directly above). Energy conservation practices would be employed within the PHSH district to maximize energy efficiency.

Fire Protection and Emergency Response – Without adequate structural fire protection and suppression, a structural fire within the PHSH district could cause significant damage to property and result in deaths and injuries. Fire prevention, protection, and suppression would be primary considerations in the design, construction, rehabilitation, maintenance, and operation of all PHSH facilities. Prevention priorities would focus on occupied structures and historic resources, with emphasis placed evenly on code compliance, early warning detection, suppression systems, and employee training and awareness. Fire prevention at the PHSH district would occur through code-compliant new construction, upgrading of existing structures, and properly installed and maintained detection and suppression systems. The best available technology would be used to detect and provide early warning of fires and to prevent and suppress structural fires. Prior to occupancy, structural fire deficiencies would be addressed and corrected, including removing and replacing the existing fire escapes within Building 1801 with code-

³³ While the Trust operates and maintains the electrical distribution system at the Presidio, it is a bundled service customer of PG&E. Therefore, the development team may choose service directly from PG&E.

compliant exit stairs within the building, and installing automatic wet pipe sprinkler systems. The water supply and delivery system would be designed and maintained to provide sufficient flows to operate fire sprinkler systems and fire hydrants.

Prior to building rehabilitation, construction documents and shop drawings would be submitted, reviewed, and approved by Presidio Fire Department fire inspectors. Construction documents would include all fire prevention requirements for the proposed uses, and the shop drawings would be required to comply with applicable codes and standards. Buildings and structures would be equipped, maintained, and operated in accordance with applicable codes and standards to provide a reasonable level of life safety, public welfare, and property protection from actual and potential hazards created by fire. The preservation of historic buildings would be effectively integrated with fire management through the use of “minimum impact” techniques. Presidio Fire Department fire inspectors would inspect construction in progress and provide life safety inspection of subsequent occupancy and public education to reduce fire loss.

In the event of a structural fire at the PHS district, effective management of the safe and orderly evacuation of building residents would require an adequate number of Presidio Fire Department responders. The existing first alarm response by the Presidio Fire Department would consist of two engines, two paramedic (ALS) ambulances, one truck company, and one chief officer. This level of response would provide between 10 and 13 firefighters to the scene to initiate search and rescue operations, assist in evacuation, and conduct fire suppression operations. The Presidio Fire Department has indicated that additional equipment and staff located in a temporary or permanent location in the southern portion of the Presidio would be required to meet fire flow and provide an adequate number of personnel to conduct an initial attack operation safely within the NFPA standard. According to the Presidio Fire Department, additional equipment and staff would also be required in a suitable location in the southern portion of the Presidio to ensure the availability of the required four-minute response to emergency medical calls for service (see PTMP EIS Mitigation Measure CO-12 *Expansion of Public Safety Services* below).

Law Enforcement – The increase in resident and employee population in the PHS district would potentially increase the number of calls for police service from occupants while reducing calls related to vagrancy and vandalism. As required by PTMP EIS Mitigation Measure CO-12 *Expansion of Public Safety Services*, as calls for police service increase, the USPP would make appropriate increases in staff, equipment, and facilities and scale up its operations as necessary to ensure that law enforcement services remain at adequate levels.

3.9.2.3 Alternative 2: Wings Retained / Trust Revised Alternative

Water Supply and Demand – Water demand under this alternative would be less than that taken into account in the PTMP EIS water demand calculations, and therefore projected water supply would be sufficient for expected needs. This alternative would demand approximately 58,000 gpd annually, compared to 10,000 gpd under the Requested No Action Alternative and 71,000 gpd estimated in the PTMP EIS (Alternative 1). The physical condition and capacity of feeds from both the Presidio and

CCSF systems are generally adequate to serve the project; however, some upgrades and new backflow prevention devices, fire laterals, and meters would be required.

This alternative would use water efficiently and responsibly. The water system would be designed to conserve the maximum amount of water. Water-efficient devices would be installed in all structures, and efficient methods would be used for outdoor irrigation.

Wastewater Treatment and Disposal and Storm Drainage – New uses at full occupancy under this alternative would generate 43,000 gpd of wastewater annually. This alternative would generate considerably more than the 9,000 gpd estimated for the Requested No Action Alternative, but 12,000 gpd less than proposed uses under the PTMP (Alternative 1). Existing sewer lines are adequately sized to handle increased flows from development under this alternative. Water conservation practices to minimize water usage within the PHSB district would reduce wastewater generation and flows.

Impacts on the storm sewer system under Alternative 2 would be similar to those of Alternative 1. Some infrastructure improvements would be required to minimize storm water runoff and comply with existing water quality standards and regulatory requirements. Designs or measures would be implemented to improve storm water management at Battery Caulfield and limit or eliminate impervious surfaces district-wide in order to reduce storm water runoff volumes and improve water quality.

Solid Waste – Under this alternative, almost all of the existing buildings (no less than 88 percent) would be adaptively reused, which would limit demolition and new construction waste. Demolition of the front connector and two-story rear additions, along with rehabilitation of historic buildings, would result in the disposal of up to 5,650 tons of debris. Cost-effective, environmentally protective alternatives to disposal of demolition debris would be implemented to minimize impacts on the regional waste stream. These measures would include developing and implementing a construction and demolition debris management plan with the aim to divert up to 75 to 80 percent of construction waste from landfills.

During operation, this alternative would generate up to 950 tons of solid waste per year. Solid waste would be reduced by as much as two-thirds through efficient resource use, recycling and reuse, diversion of organic material from waste, and purchase of products composed of recycled materials.

Gas System – This alternative would consume 163 thousand therms of natural gas annually. This amount would be more than the estimate for the Requested No Action Alternative (28 thousand therms) and roughly the same as the estimate for Alternative 1 (164 thousand therms). While existing services are adequately sized for the proposed development, some upgrades to the infrastructure may be required, which would temporarily inconvenience nearby residents. The development would adopt the principles of sustainable design and technology, and conservation measures would be implemented to minimize natural gas usage.

Electrical System – This alternative would consume 1.83 million kWh of electricity annually compared to 0.49 million kWh under the Requested No Action Alternative and 2.61 million kWh under the PTMP (Alternative 1). As under Alternative 1, the electrical system serving the PHSB district would require

upgrading for safety and efficiency, including repair and rehabilitation of old cables and, where possible, undergrounding of on- and off-site overhead lines, which would temporarily inconvenience nearby residents. A number of energy conservation practices would be employed within the PHSH district to maximize energy efficiency.

Fire Protection and Emergency Response – As under Alternative 1, fire prevention under this alternative would occur through code-compliant new construction, upgrading of existing structures, and properly installed and maintained detection and suppression systems. The best available technology would be used to detect and provide early warning of fires and to prevent and suppress structural fires. Prior to occupancy, structural fire deficiencies would be addressed and corrected, including removing and replacing the existing fire escapes within Building 1801 with code-compliant exit stairs within the building, and installing automatic wet pipe sprinkler systems. The water supply and delivery system would be designed and maintained to provide sufficient flows to operate fire sprinkler systems and fire hydrants. For new construction, modification, and rehabilitation, construction documents and shop drawings would be submitted, reviewed, and approved by Presidio Fire Department fire inspectors prior to the start of work. All new and existing buildings and structures would be constructed, arranged, equipped, maintained, and operated in accordance with applicable codes and standards. The Presidio Fire Department fire inspectors would inspect construction in progress and provide life safety inspection of subsequent occupancy. As required by PTMP EIS Mitigation Measure CO-12 *Expansion of Public Safety Services*, firefighting staff, equipment, and/or facilities would be increased to provide the required levels of fire protection and emergency medical response to the PHSH district.

Law Enforcement – Similar to Alternative 1, this alternative would potentially increase the number of calls for police service while reducing the number of calls related to vagrancy and vandalism. The USPP would make appropriate increases in staff, equipment, and facilities and scale up its operations as necessary to ensure that law enforcement services remain at adequate levels.

3.9.2.4 Alternative 3: Wings Removed Alternative

Water Supply and Demand – Water demand under this alternative would be 51,000 gpd annually, 20,000 gpd less than that taken into account in the PTMP EIS water demand calculations (Alternative 1), and less than Alternative 2 but more than Alternative 4. Therefore, projected water supply would be sufficient for expected needs. The physical condition and capacity of the feeds from both the Presidio and CCSF systems are generally adequate to serve the project; however, some upgrades and new backflow prevention devices, fire laterals, and meters would be required.

Water would be used efficiently and responsibly. The water system would be designed to conserve the maximum amount of water, water-efficient devices would be installed in all structures, and efficient methods would be used for outdoor irrigation.

Wastewater Treatment and Disposal and Storm Drainage – New uses at full occupancy under this alternative would generate 37,000 gpd of wastewater annually, or 18,000 gpd less than proposed uses under the PTMP (Alternative 1) and less than Alternative 2 but more than Alternative 4. Existing sewer

lines are adequately sized to handle increased flows from development under this alternative. Water conservation practices to minimize water usage within the PHSB district would reduce wastewater generation and flows.

Impacts on the storm sewer system under Alternative 3 would be similar to those of Alternative 1. Some infrastructure improvements would be required to minimize storm water runoff and comply with existing water quality standards and regulatory requirements. Designs or measures would be implemented to improve storm water management at Battery Caulfield and limit or eliminate impervious surfaces district-wide in order to reduce storm water runoff volumes and improve water quality.

Solid Waste – Under this alternative, almost all of the existing buildings (no less than 88 percent) would be adaptively reused, and there would be no new construction waste. However, this alternative would generate the most solid waste during construction due to the amount of demolition involved. Demolition of non-historic buildings, including the additions to Building 1801, and rehabilitation of historic buildings would result in the disposal of approximately 12,000 tons of debris. Cost-effective, environmentally protective alternatives to disposal of demolition debris would be implemented to minimize impacts on the regional waste stream, including developing and implementing a construction and demolition debris management plan.

During operation, this alternative would generate roughly 660 tons of solid waste per year. Solid waste would be reduced by as much as two-thirds through efficient resource use, recycling and reuse, diversion of organic material from waste, and purchase of products composed of recycled materials.

Gas System – This alternative would consume 113 thousand therms of natural gas annually, roughly two-thirds the amount used under Alternatives 1 and 2 (164 and 163 thousand therms, respectively) but less than under Alternative 4 (148 thousand therms). Existing services are adequately sized for the proposed development but some upgrades may be required, which would temporarily inconvenience nearby residents. The development would adopt the principles of sustainable design and technology, and conservation measures would be implemented to minimize natural gas usage.

Electrical System – This alternative would consume 1.24 million kWh of electricity annually, less than half the electricity that would be used under Alternative 1 (2.61 million kWh) and less than either Alternatives 2 or 4. As under Alternative 1, the electrical system serving the PHSB district would require upgrading for safety and efficiency, including repair and rehabilitation of old cables and, where possible, on- and off-site undergrounding of overhead lines, which would temporarily inconvenience nearby residents. Energy conservation practices would be employed within the PHSB district to maximize energy efficiency.

Fire Protection and Emergency Response – As under Alternative 1, fire prevention under this alternative would occur through code-compliant new construction, upgrading of existing structures, and properly installed and maintained detection and suppression systems. The best available technology would be used to detect and provide early warning of fires and to prevent and suppress structural fires. Prior to occupancy, structural fire deficiencies would be addressed and corrected, including removing and

replacing the existing fire escapes within Building 1801 with code-compliant exit stairs within the building, and installing automatic wet pipe sprinkler systems. The water supply and delivery system would be designed and maintained to provide sufficient flows to operate fire sprinkler systems and fire hydrants. As required by PTMP EIS Mitigation Measure CO-12 *Expansion of Public Safety Services*, firefighting staff, equipment, and/or facilities would be increased to provide the required levels of fire protection and emergency medical response to the PHSB district.

Law Enforcement – As with Alternative 1, the increase in resident and employee population at the PHSB district would potentially increase the number of calls for police service from occupants and reduce the calls related to vagrancy and vandalism. USPP law enforcement services would be reviewed and expanded as necessary to ensure that adequate services are maintained.

3.9.2.5 Alternative 4: Battery Caulfield Alternative

This alternative would require extending utility services to Battery Caulfield, probably along Battery Caulfield Road.

Water Supply and Demand – Water demand under this alternative would be 43,000 gpd annually, 28,000 gpd less than that estimated for the PHSB district under the PTMP (Alternative 1) and less than either Alternative 2 or 3. Therefore, projected water supply would be sufficient for expected needs. The physical condition and capacity of the feeds from the Presidio and CCSF systems are generally adequate to serve the project; however, some upgrades and new backflow prevention devices, fire laterals, and meters would be required, including the installation of new infrastructure to support new construction at Battery Caulfield. While flow and pressure requirements would be sufficient within the PHSB complex, a booster pump may also be needed to meet fire flow needs within Battery Caulfield.

Water would be used efficiently and responsibly. The water system would be designed to conserve the maximum amount of water, water-efficient devices would be installed in all structures, and efficient methods would be used for outdoor irrigation.

Wastewater Treatment and Disposal and Storm Drainage – New uses at full occupancy under this alternative would generate 30,000 gpd of wastewater annually, or 45 percent less than proposed uses for the PHSB district under the PTMP (Alternative 1). Existing sewer lines are adequately sized to handle increased flows from development under this alternative. Additional infrastructure improvements would be required to support new construction at Battery Caulfield. Water conservation practices to minimize water usage within the PHSB district would reduce wastewater generation and flows.

Impacts on the storm sewer system under Alternative 4 would be similar to those of Alternative 1. Some infrastructure improvements would be required to minimize storm water runoff and comply with existing water quality standards and regulatory requirements. Designs or measures would be implemented to minimize changes to the local hydrology at Battery Caulfield and limit or eliminate impervious surfaces within the PHSB complex in order to reduce storm water runoff volumes and improve water quality (see also the discussion of hydrology and associated mitigation in Section 3.11.2.5).

Solid Waste – Demolition of the non-historic wings of Building 1801, replacement construction, and rehabilitation of historic buildings would result in the disposal of up to 11,580 tons of debris. Cost-effective, environmentally protective alternatives to disposal of demolition debris would be implemented to minimize impacts on the regional waste stream, including developing and implementing a construction and demolition debris management plan.

During operation, this alternative would generate roughly 570 tons of solid waste per year, of which as much as two-thirds would be diverted from regional landfills.

Gas System – This alternative would consume 148 thousand therms of natural gas annually, approximately 10 percent less than Alternative 1 (164 thousand therms). Existing services are adequately sized for the proposed development but some on- and off-site upgrades, including provision of new service lines to support new construction at Battery Caulfield, may be required. These upgrades would temporarily inconvenience nearby residents. The development would adopt the principles of sustainable design and technology, and conservation measures would be implemented to minimize natural gas usage.

Electrical System – This alternative would consume 1.47 million kWh of electricity annually, compared to 2.61 million kWh under Alternative 1. As under Alternative 1, the electrical system serving the PHSH district would require upgrading for safety and efficiency, including repair and rehabilitation of old cables, installation of new lines at Battery Caulfield and, where possible, on- and off-site undergrounding of overhead lines, which would temporarily inconvenience nearby residents. A number of energy conservation practices would be employed within the PHSH district to maximize energy efficiency.

Fire Protection and Emergency Response – Impacts on structural fire protection at the PHSH complex would be similar to those of Alternative 1. However, new construction at Battery Caulfield would require that the loop road be designed and constructed to ensure fire and emergency vehicle access. Following occupancy of the project, reduction of fire loss would be accomplished through an ongoing fire prevention inspection program and public education. Unlike Alternatives 1, 2, and 3, however, this alternative would include senior housing (Building 1801) and assisted living units (Building 1808); residents of these units may rely upon skilled nursing or continuing care and may not be capable of self-rescue in the event of a fire. This would result in an increased need for available Presidio Fire Department responders to assist with occupant evacuation, in addition to initiating search and rescue operations and conducting fire suppression operations. As required by PTMP EIS Mitigation Measure CO-12 *Expansion of Public Safety Services*, firefighting staff, equipment, and/or facilities would be increased to provide additional coverage to the PHSH district as needed.

Also, unlike Alternatives 1, 2, and 3, in which the vast majority of building occupants would be ambulatory, this alternative would include an older population and an assisted living component, increasing emergency medical calls for service and placing an increased response load on the existing paramedic (ALS) ambulance staffed at the Presidio. The Presidio Fire Department has indicated that additional equipment and staff would be required in a suitable location in the southern portion of the Presidio to ensure the availability of paramedic (ALS) level care as well as the required four-minute response to emergency medical calls for service.

Law Enforcement – As with Alternative 1, the number of calls for police service from occupants would potentially increase under this alternative while the number of calls related to vagrancy and vandalism would decrease. The USPP would review and expand law enforcement services as necessary to ensure that services remain at adequate levels.

3.9.2.6 Park Presidio Boulevard Access Variant

Storm water control measures would be incorporated into the intersection design. Consideration would be given to avoiding storm water runoff impacts on Mountain Lake.

3.9.2.7 Cumulative Effects

The PTMP EIS analysis of cumulative impacts on utilities and services, including water, wastewater disposal, storm drainage, solid waste, electricity and natural gas, and fire protection and law enforcement took into account the combined demand of Presidio development (including new uses in the PHSH district) and other demands outside the park. The analysis concluded that the combined effect of Presidio and other local development would have a negligible effect on service providers. Many of the Presidio's older infrastructure systems have been subject to significant upgrading and replacement. The Trust has a capital investment program designed to bring these systems up to current standards so that they may serve new uses. The PTMP lists safety, efficiency, and long-term sustainability as primary goals of upgrading and replacement work.

The Trust would provide utilities for new uses or would require its private development team(s) to secure necessary utilities at their own expense from outside the park. Utilities would be installed within development areas under requirements prescribed by the Trust and/or service providers. Private development team(s) would be charged no less than the full cost for the use of the services.

Presidio development would not contribute substantially to cumulative demands on outside service providers. The Presidio demand for off-site water represents less than a quarter of a percent of the projected total demand in the CCSF service area (PTMP EIS, page 372). The need for water purchases from the CCSF would be minimized by implementing aggressive water conservation and the use of recycled water outside the PHSH district. Future wastewater flows from the park to the CCSF sewage treatment system would represent less than half a percent of the capacity of either of the CCSF plants where these flows are treated, and implementation of the proposed water recycling project would result in a direct reduction in flows that would otherwise go the CCSF system for treatment and disposal (PTMP EIS, page 373). Regional landfills have sufficient capacity to accept Presidio debris, and much of the debris would be diverted from the waste stream. With regard to energy management, Presidio development would occur in a way that uses energy wisely and economically through sustainable practices and design to minimize the park's impact on regional energy demand. The Presidio Fire Department would continue to adjust its operations in order to maintain reasonable levels of fire safety and emergency services consistent with NFPA standards. Similarly, USPP law enforcement services would be expanded as necessary to serve the increased demand for calls. Therefore, Presidio development would be managed so that it has the least possible impact on park or outside service providers' resources, administration, management, or customers.

3.9.3 MITIGATION MEASURES

The following measures are adapted from the PTMP EIS and were adopted as conditions of approval at the end of the PTMP planning and environmental review process. These measures will address the proposed action's contribution to potentially significant impacts on utilities and services under all alternatives.

UT-1 *Demand Management Best Management Practices* – The Trust, in cooperation with all its tenants and residents, will continue to implement best management practices that encourage water conservation, including the following:

- Installing low-flush toilets, low-flow showerheads, and other water-saving devices in all buildings;
- Integrating non-invasive, drought-tolerant, low-maintenance landscaping into the development areas to the extent possible to promote efficient and effective water application;
- Retrofitting landscaped areas with low-flow irrigation devices; and
- Informing tenants and residents of water conservation practices.

UT-4 *Reduction of On-Site Wastewater Generation* – The Trust will implement water conservation best management practices described in Mitigation Measure UT-1 to limit water usage at the Presidio, which will reduce wastewater generation as well. The on-site sewer infrastructure will also be rehabilitated (i.e., slip-lined and broken and cracked sections of pipe replaced) as necessary to reduce storm water infiltration into the wastewater system.

UT-6 *Storm Water Drainage System Upgrades* – To maintain adequate system capacity and to correct existing operational problems, the Trust will ensure that necessary upgrades to all storm drain piping that conveys storm water from the site to the CCSF storm water drainage system be performed. To the extent practicable, all surface water flow will be directed toward the CCSF combined sewer system and not to Mountain Lake or Lobos Creek.

UT-7 *Storm Water Reduction* – The Trust will implement designs or measures to limit or eliminate impervious surfaces in order to reduce storm water runoff volumes and improve water quality. The Trust will practice natural storm water reduction by using on-site vegetation and landscaping as filtration and retention systems to the extent feasible.

UT-8 *Waste Diversion* – Cost-effective, environmentally protective alternatives to disposal of demolition debris will be required, including the following:

- Maximizing reuse and recycling of construction and demolition materials consistent with a construction and demolition debris management plan (see Appendix C of the PHS EA);
- Clearing salvageable items from structures prior to demolition activities, including such items as piping, flooring, doors, windows, bathroom fixtures and kitchen fixtures, hospital equipment, heaters, and lumber;

- Removing and encapsulating contamination before demolition to minimize co-mingling of the wastes and to maximize reuse of the uncontaminated materials;
- Bringing down buildings piece by piece to recover the maximum amount of reusable materials; and
- Size-reducing (especially concrete) and pre-sorting and segregating materials after demolition to increase salvage value of the recovered materials and to decrease tipping fees for different materials in the debris; and
- Recycling materials on-site to reduce both hauling and disposal costs.

UT-11 *Environmental Building Design* – The Trust will incorporate the site’s environmental conditions in building design solutions, maximizing solar energy and utilizing natural light.

UT-12 and UT 13 *Energy Conservation* – The following practices will be employed within the PSHH district to minimize the environmental impacts of energy consumption:

- Develop specific measures to minimize building energy use for buildings to be renovated;
- Meet or surpass the energy conservation requirements of California Title 24 energy code during building rehabilitation where these requirements do not conflict with historic preservation objectives;
- Carry out cost-effective energy conservation retrofits of buildings and utility infrastructure;
- Educate tenants and visitors about energy conservation;
- Develop energy conservation and efficient energy generation demonstration projects in individual buildings;
- Participate in energy-efficient appliance and computer purchasing programs; and
- Install energy management systems in all non-residential buildings both to monitor energy use and to enable remote troubleshooting and building controls.

The following measure is also adapted from the PTMP EIS, but its implementation is only partly within the control of the Trust. Implementation of this measure would be required to eliminate significant impacts related to police and fire services:

CO-12 *Expansion of Public Safety Services* – The Presidio Fire Department and the USPP will expand their service as necessary to adequately serve the PSHH district. The Trust currently pays for public safety services, and therefore will work with each agency to determine required service enhancements and a cost-effective approach to their implementation prior to occupancy of the PSHH district. The Presidio Fire Department has preliminarily identified a need for additional personnel, equipment, and facilities to improve deficient response times to southern areas of the Presidio (i.e., Wherry Housing and the PSHH district). At a minimum, the Trust has agreed to provide space within an existing building at Wherry Housing or the PSHH district to house an on-duty staff of two firefighter/paramedic positions and to provide adjacent space for a paramedic (ALS) ambulance. If these additions are not deemed sufficient to improve response times, the Trust will work with the Presidio Fire Department to identify and implement

additional expansions in personnel and equipment. Alternatively, the Trust may consider contracting with the San Francisco Fire Department for fire protection and emergency medical response to meet the needs of the PHSH district.

3.10 Geology and Soils

3.10.1 AFFECTED ENVIRONMENT

The geology of the Presidio is described on page A-5 (Volume III) of the PTMP EIS, which states that “site specific development projects implementing the Plan will require supplemental review to evaluate geologic and seismic hazards.”

The project site is located in a seismically active region. Four major active faults lie near the site: the San Andreas Fault (about 5.2 miles southwest), the North San Gregorio Fault (about 7.8 miles west), the Northern Hayward Fault (about 13.0 miles northeast), and the Rodgers Creek Fault (21.7 miles north). The project site is expected to experience periodic minor earthquakes and possibly a major earthquake (Moment magnitude [Mw] greater than 6.7 [California Division of Mines and Geology 1996]) on one or more of these nearby faults during the life of the proposed development. Numerous earthquakes have been recorded in the region in the past, the largest of which was the 1906 San Francisco Earthquake (Mw of 7.9), which occurred on the San Andreas Fault. The most recent earthquake to affect the Bay Area was the Loma Prieta Earthquake of October 17, 1989, with a Mw of 6.9, in the Santa Cruz Mountains approximately 57.2 miles from the site.

The Working Group on California Earthquake Probabilities (2002) at the U.S. Geological Survey predicted a 62-percent probability of a Mw of 6.7 or greater earthquake occurring in the San Francisco Bay Area by the year 2032. More specifically, the estimated 30-year probabilities of a Mw of 6.7 or greater earthquake for the Hayward-Rodgers Creek, San Andreas, and San Gregorio Faults are 27, 21, and 10 percent, respectively.

Historically, ground surface displacements closely follow the trace of geologically young faults. The project site is not located within an Earthquake Fault Zone, as defined by the Alquist-Priolo Earthquake Fault Zoning Act, and no known active or potentially active faults exist on the site. Therefore, the risk of surface faulting is very low (Treadwell & Rollo, Inc. 2003a).

Large earthquakes of the type likely to occur during the life of the project may be expected to cause very strong ground shaking at the site. This shaking can result in ground failure such as that associated with soil liquefaction, lateral spreading, seismically induced densification of natural or fill soils, and landsliding. The project site is expected to experience seismic shaking and possible damage in approximately the same proportion as the surrounding areas of the Presidio and San Francisco.

Settlement caused by seismic densification may be especially noticeable where thick bodies of poorly compacted fill occur, such as beneath the large parking lot southwest of Wedemeyer Street. This parking

lot is partly supported on waste fill, known as Landfill 10, deposited over many years by the U.S. Army. The Trust is now evaluating options for stabilizing this fill. Preliminary analyses indicate the fill would be subject to some settlement and the southwestern face of the fill deposit might experience minor landsliding in a large earthquake, but the extent of these deformations would be in the range of one foot or less. Based on the analyses to date, deformations of this size are not expected to pose a significant threat to the project site, surrounding residences, or adjacent natural areas.

According to a building seismic analysis prepared for the City and County of San Francisco (Fong & Chan Architects 1990), the PHS buildings are generally usable and in good condition, with no indication of serious structural damage to the primary structural systems from recent or past earthquakes, settlements, or overloads. Damage to interior finishes and some areas of exterior cladding and deterioration from age or other causes were observed. Also, neither the original 1932 hospital nor the 1952 addition meet current safety standards or conform to code requirements for seismic forces, and therefore these structures would require seismic upgrading (Fong & Chan Architects 1990; Architectural Resources Group 1991; Faye Bernstein & Associates 1999).

The Battery Caulfield site contains three underground storage areas (magazines) that were previously used as a Nike Missile facility. Each magazine is founded on 0.5- to 2.5-foot-thick concrete slabs, at depths of 14 to 23 feet below the existing ground surface, with perimeter walls consisting of 12-inch-thick reinforced concrete. The site is underlain by about 1 to 25 feet of fill (becoming thicker toward the south), consisting primarily of interbedded sand and clay. Beneath the fill is native sand and clay, extending to depths of 17 to 42 feet below the ground surface. Below these depths, the site is underlain by serpentinite bedrock of the Franciscan Complex. The groundwater is at 10 to 30 feet below the ground surface.

3.10.2 ENVIRONMENTAL CONSEQUENCES

The following impact evaluation is based in part on a structural engineering report for the main hospital building (Faye Bernstein & Associates 1999) and a geotechnical feasibility study for the Battery Caulfield site (Treadwell & Rollo, Inc. 2003).

3.10.2.1 Requested No Action Alternative

Unless the building is stabilized, the seismic joints between the 1932 main hospital building and the 1952 wings (being less than required by current code) would experience differential movement in a moderate to major earthquake resulting in “pounding” along the joints between the original building and the wings. Such pounding frequently results in extensive damage ranging from falling brick and terra cotta to collapse. Under this alternative, mothballing of Building 1801 and other vacant buildings would include bracing or added reinforcement of severely vulnerable structural components, which would improve their overall seismic resistance. Measures taken to strengthen buildings would only meet minimum performance objectives since it would be economically impractical to design otherwise in the absence of a project. Nonetheless, the levels of damage would be reduced and the lives of the buildings would be ensured following a seismic event.

3.10.2.2 Alternative 1: PTMP Alternative

Building rehabilitation for the proposed uses under this alternative would be geologically and geotechnically feasible. Rehabilitation of the buildings using standard structural engineering techniques for foundations and building structural features consistent with established practice would result in structural upgrades that would add lateral/seismic resistance in the event of a major earthquake. Seismic design would be based on the criteria established in the California State Historical Building Code. Buildings that would be used for educational uses would be rehabilitated in compliance with applicable provisions of the California Education Code. While the buildings would not be expected to perform at the same level as a new building, rehabilitation and structural upgrading would reduce seismic risk to acceptable levels and would constitute a beneficial impact of Alternative 1.

3.10.2.3 Alternative 2: Wings Retained / Trust Revised Alternative

Building rehabilitation and new construction for the proposed uses under this alternative would be geologically and geotechnically feasible. Similar to Alternative 1, this alternative would use standard structural engineering techniques and would result in a successful retrofit for seismic safety purposes. Replacement construction under this alternative would be limited to the lower plateau and would be built to current standards and seismic design factors.

Excavations for the underground parking structure would encounter fill soils, native dune sands, or possibly sandy clay of the Colma formation, depending on location and depth. Fill soils would be segregated, profiled, and transported off-site for disposal at a licensed landfill. Native soil materials would be reused on the project site (if soil is required), stockpiled, and safeguarded for reuse with other dune restoration projects on the Presidio or nearby (if the native materials are deemed suitable), or disposed off-site in accordance with applicable regulations. Construction of the underground garage would result in the creation of about 10,000 cubic yards of excess soil. If this soil cannot be reused within the park for landscaping or habitat restoration purposes or for compacted fill, removing the soil would require up to 600 truck round trips (evaluated under construction traffic impacts in Section 3.2, Transportation).

3.10.2.4 Alternative 3: Wings Removed Alternative

Building rehabilitation for the proposed uses under this alternative would be geologically and geotechnically feasible. Similar to Alternative 1, this alternative would use standard structural engineering techniques and would result in a successful retrofit for seismic safety purposes.

3.10.2.5 Alternative 4: Battery Caulfield Alternative

Building rehabilitation and new construction for the proposed uses under this alternative would be geologically and geotechnically feasible. Similar to Alternative 1, this alternative would use standard structural engineering techniques and would result in a successful retrofit of historic buildings for seismic safety purposes. Replacement construction would be built to current standards and seismic design factors. Within Battery Caulfield, new low-rise residential buildings would likely extend over the existing underground magazines. New buildings would be of light timber construction with plywood shear walls

and roof diaphragms and concrete foundations with spread footings. If the magazines can be backfilled with soil or concrete, they may be used to support new improvements. Otherwise, the magazines would have to be demolished and removed. In addition, existing fill within Battery Caulfield is likely not suitable for the support of proposed structures and associated improvements, and would be removed and reused/replaced as engineered fill. Settlement would be small and within acceptable limits. As recommended by the PTMP EIS and the geotechnical feasibility study, the stability of the fill slope would be further evaluated during the final geotechnical investigation and may include measures to improve slope stability.

3.10.2.6 Park Presidio Boulevard Access Variant

The new direct access between the project site and Park Presidio Boulevard would not expose people or property to geologic or seismic hazards. Grading, excavation, and any fill operations during construction would minimize high cuts and fills. Slopes would be made as flat as possible both for embankment stability and to reduce slide potential in cuts. Designs for cut slopes, embankments, earthwork, sub-excavations, erosion control features, and any other pavement improvements would be built to standards set forth in the Highway Design Manual and subject to Caltrans geotechnical review to mitigate the potential for earthquake damage.

3.10.2.7 Cumulative Effects

The Trust regulates all building rehabilitation and/or replacement construction within the Presidio. The Trust would withhold development permits for any site with seismic hazards until geologic and soil conditions of the site are investigated and appropriate mitigation measures, if any, are incorporated into development plans. The California Geological Survey would provide additional policies and criteria to guide the Trust in evaluating and mitigating seismic hazards. Identifying and mitigating seismic hazards as part of the Trust's land use planning and permitting processes would reduce the threat to public health and safety and minimize the loss of life and property.

3.10.3 MITIGATION MEASURES

The PTMP EIS does not include mitigation measures related to geologic hazards, but indicates that site-specific engineering designs will be required of individual projects. For ease of compliance and monitoring, this requirement is presented here as a mitigation measure. This measure will apply to all alternatives and would effectively mitigate potentially significant seismic hazards.

GE-X Geotechnical Report – Prior to building rehabilitation and/or replacement construction, as part of a design-level site investigation report, a geotechnical engineer will investigate the site for seismic hazards and recommend measures for earthwork, seismic design, and other geotechnical issues to provide reasonable protection of structural and public safety given site-specific conditions. Removal or relocation of geologic resources of interest (such as dune sand, colma foundation or other native soil) will include documentation of the subsurface conditions, including stratigraphy and contact mapping, consideration of academic research opportunities, and provisions for within-park reuse for landscaping or habitat

restoration projects if feasible. The geotechnical report will also provide final recommendations by a structural engineer regarding necessary improvements to existing buildings and foundations. Evaluation and mitigation of seismic hazards will be conducted under guidelines established by the California Geological Survey (1997b). If construction is proposed at Battery Caulfield, the geotechnical report will include final recommendations for grading, foundation support, seismic design, and other geotechnical issues.

3.11 Hydrology, Wetlands, and Water Quality

3.11.1 AFFECTED ENVIRONMENT

The PTMP EIS describes wetlands, streams, and drainages of the Presidio on pages 118 to 121 and storm water runoff and water quality issues on pages 188 to 189. These descriptions are incorporated here by reference. The hydrologic environment and water quality of the PSHH district, including the Nike Swale wetland, are described in more detail below.

The PSHH district occupies a ridgeline and southward-sloping series of bluffs and plateaus. Maximum elevation is 330 feet in the north, descending to 150 feet at the southern project site boundary. This relatively open landscape sits over an ancient sand dune complex, which in turn lies over older rock of the Colma Formation (sedimentary sands and clays). Beneath these features, Mesozoic Franciscan bedrock (deformed sedimentary and volcanic mélangé) is found in most of the district (Montgomery Watson 1996). Past grading activities have altered surface topography in several locations in the district, resulting in the placement of artificial fill (locally derived and imported).

The PSHH district primarily drains southward into the Lobos Creek catchment. Eastern portions of the district drain to the Mountain Lake catchment. On-site, there are no named streams or perennial flowing channels. The primary receiving watershed of Lobos Creek supplies roughly 85 percent of the domestic water supply to residents of the Presidio through surface water diversion and treatment. To protect water quality and public health, the permit for operation of the Lobos Creek treatment plant includes constraints on activities within the Lobos Creek watershed (California Department of Health Services 1997).

Figure 22 illustrates the PSHH district's physical structure, surface features, and drainage patterns. The northern portion of the upper plateau contains Battery Caulfield and Buildings 1449, 1450, and 1451. The southern portion is called the Nike Swale area and contains the Nike Swale wetlands, Landfill 8, a parking lot, and Buildings 1819 and 1818. The PSHH complex includes Buildings 1801 through 1815 and 1828, parking, Landfill 10, and landscaped areas. In total, the district is estimated to consist of mostly pervious surfaces, with approximately 30 percent of the 42 acres occupied by buildings, paving, and other hardscape.

3.11.1.1 Surface Hydrology

Battery Caulfield – Surface runoff in this area primarily occurs from impermeable paved surfaces at Battery Caulfield. The three Nike Missile silos at Battery Caulfield occupy a paved plateau with service roads that drain into a storm water collection system. While surface inlets have been identified, a complete understanding of pipe and outfall locations is not possible because as-built drawings are unavailable. To address this uncertainty and better understand the apparent hydrologic connection between Battery Caulfield and the Nike Swale wetlands below, a field-based flow study was performed (Jones & Stokes 2003). Surface runoff collecting in Drains 1, 1a, 2, and 4 flows southward to hillslope outfalls, infiltrates into the soil through pipeline leaks, and flows farther southward as shallow subsurface flow (throughflow) down-gradient to the Nike Swale wetlands (see Figure 22). Other drains, such as Drain 5 at Battery Caulfield (see Figure 22), collect and direct surface flow to outfalls leading toward the Nike Swale area or toward the east outside of the district.

Nike Swale Area – The Nike Swale area is largely vegetated, except for a large paved parking area on the west side. The topography, soils, and geology of the Nike Swale area suggest high infiltration capacity of sandy soils, whereby most surface water infiltrates and likely flows down-gradient through the shallow subsurface soil horizon. As described above, the Nike Swale wetlands are supplied by surface water runoff from the Battery Caulfield upslope (see Figure 22). Blocked and leaking storm drain pipes, topography, and sandy soils direct runoff water from the paved Battery Caulfield subsurface, where it flows to the wetland. Runoff waters are also directed to the wetlands through outfalls off Battery Caulfield Road. The Nike Swale wetlands are further discussed in Section 3.11.1.4.

The southern portion of the Nike Swale area includes an historic landfill known as Landfill 8. The Landfill 8 area was used as a Marine Hospital Cemetery and later as a PHSW waste disposal site (Presidio Trust 2001, Montgomery Watson 1996). The original landfill is now covered by a combination of pervious and impervious surfaces, including vegetation, a paved parking lot, and a tennis court. As in areas farther north, surface water infiltrates through the native sandy soils and fill material. This water can then either be taken up or transpired by vegetation, or infiltrate deeper to groundwater.

PHSH Complex – Like Battery Caulfield, the PHSW complex is largely paved, and surface waters run off into a storm drain collection network. The PHSW complex consists of 15 buildings, parking lots, paved sidewalks, and landscaped areas. A natural spring on the southwest side of the PHSW complex may have once fed into Lobos Creek before the area was filled with waste from the PHSW (Urban Watershed Project 2001). The landfill, known as Landfill 10, was graded, covered, and paved for use as a parking lot. Storm drains leading to the City and County of San Francisco's 17th Avenue combined sewer system and connecting to the Richmond combined sewer line capture runoff waters from the parking lot and nearby paved areas during normal storm events (Urban Watershed Project 2001). The far east portion of the PHSW complex (Buildings 1809 through 1815) drains to Mountain Lake through culverts that pass under Highway 1.

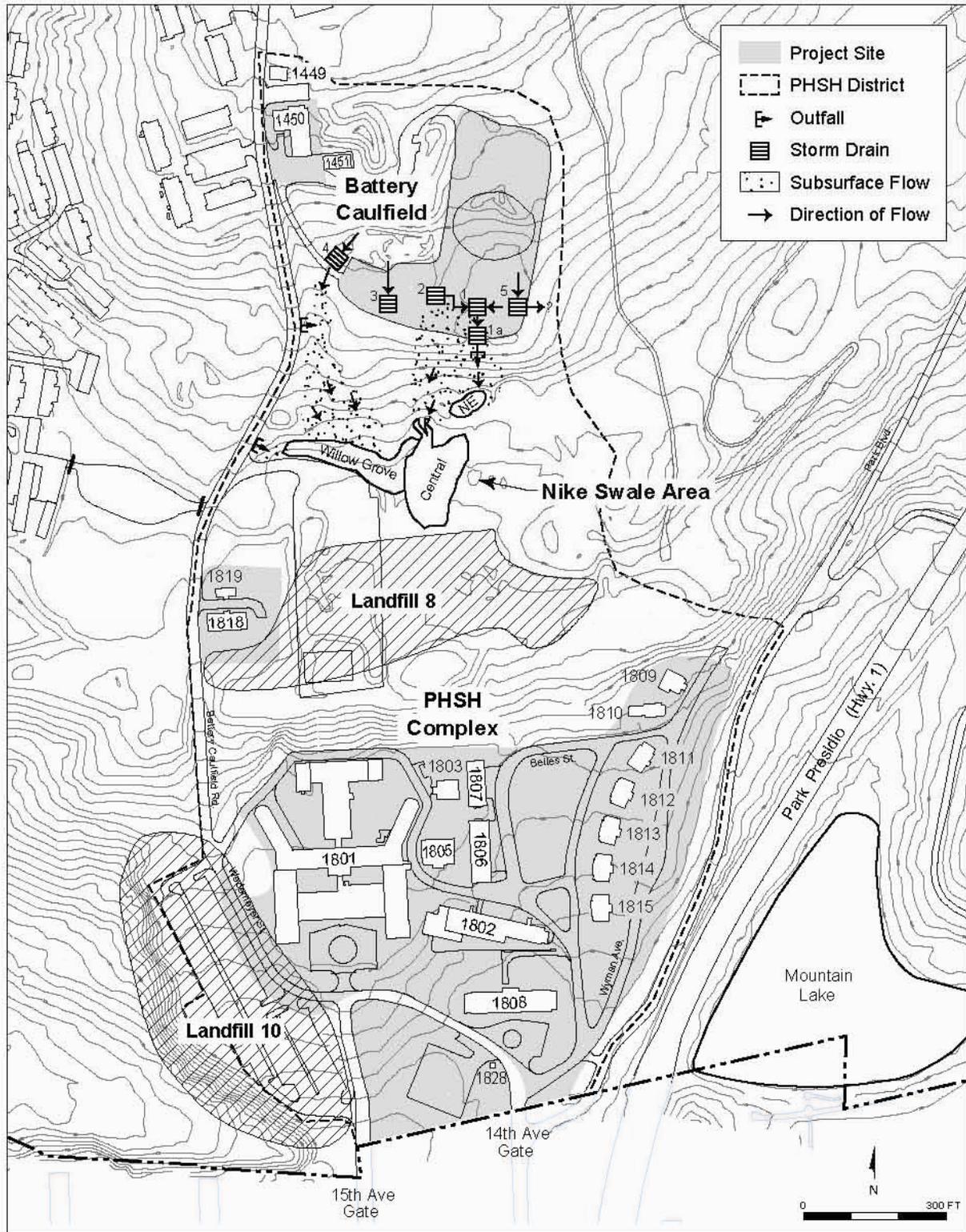


FIGURE 22. EXISTING SITE HYDROLOGY

Source: Presidio Trust, 2006

3.11.1.2 Groundwater Hydrology

Battery Caulfield – Groundwater elevations at Battery Caulfield are found 10 to 40 feet below ground surface (Treadwell and Rollo 2003b). Groundwater movement is mostly controlled by bedrock contact and typically reflects the surface topography. Three underground missile silos interrupt the groundwater table. These silos contain collected surface and ground waters. Water levels monitored in the silos showed response to seasonal fluctuations in the surrounding water table (Montgomery Watson 1999). However, water level inside the silos is no longer monitored. The silos may have a local influence on groundwater flow patterns.

The three underground missile silos once contained large amounts of hydraulic fluid. To monitor hydrocarbon contamination from Battery Caulfield, five groundwater monitoring wells were installed and numerous soil and groundwater samples were taken in and around the site from 1992 to the present (Treadwell and Rollo 2003b). Organic compounds in groundwater were not detected between 1994 and 1999 (Montgomery Watson 1999). However, benzene and toluene were detected in March 2003 (Treadwell and Rollo 2003b). Groundwater monitoring from 1995 through 2003 showed consistent flow to the south (and southeast) through Battery Caulfield.

Nike Swale Area – Groundwater has not been investigated in the Nike Swale area; however, studies at Landfill 8 have been conducted from 1994 to the present. Groundwater flow through the Landfill 8 area has consistently been south to southeast under a hydraulic gradient of 0.1 feet per foot (Treadwell and Rollo 2003b). The groundwater table is between 10 and 50 feet below the surface (Treadwell and Rollo 2003b). Figure 23 predicts the groundwater table elevation beneath the Nike Swale. Groundwater monitoring at Battery Caulfield and Landfill 8 shows that the groundwater table does not surface at the Nike Swale. Landfill 8 has been monitored for soil and groundwater contamination from wastes in the fill extending 15 feet beneath the surface. Organic compounds have not been detected at the site since 1996, with the exception of a cyanide detection in 2002 (Treadwell and Rollo 2003b). Contaminants were not detected in monitoring results from March and June 2003 (Treadwell and Rollo 2003b).

PHSH Complex – Avenues for groundwater infiltration at the PHS complex are restricted because of the higher proportion of impervious surfaces from buildings and parking lots. Groundwater in the easterly portion of the PHS complex flows toward Mountain Lake, while westerly flows descend toward Lobos Creek. Groundwater elevation in the PHS complex is 40 to 50 feet below the surface (Treadwell and Rollo 2003b). The groundwater gradient, from the large parking area over Landfill 10 to the head of Lobos Creek, flows southwesterly 10 to 40 feet below the surface, while surface topography drops 60 feet.

3.11.1.3 Water Quality

Battery Caulfield – Surface water runoff from Battery Caulfield may convey pollutants from items stored in the area. The NPS and the Trust use the paved area to store tractors, landscaping materials, recycled asphalt, telephone poles, and other items potentially containing or leaking contaminants. During storm events, potential contaminants such as sediment, oils, creosote, and hydrocarbons from these stored

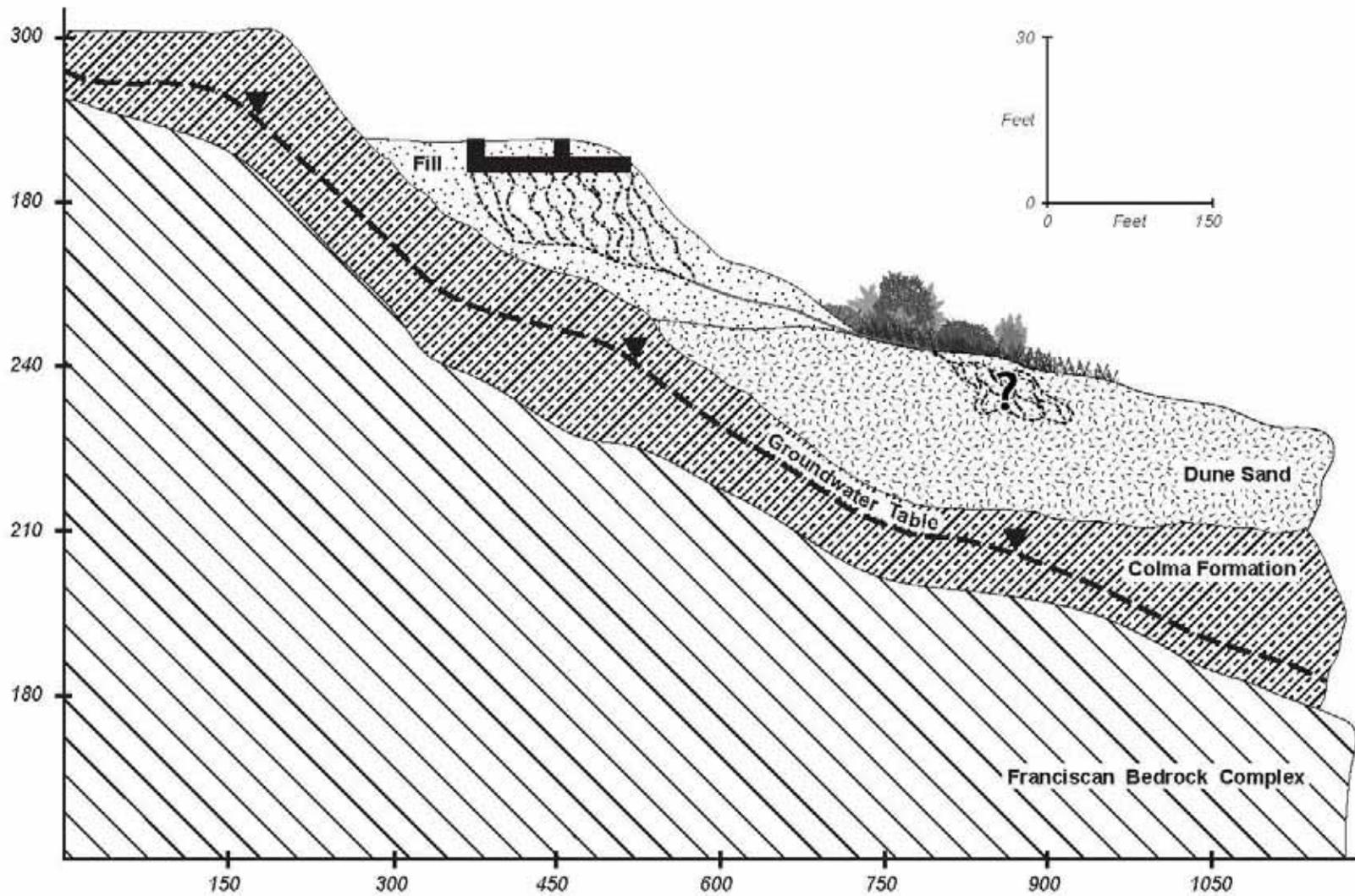


FIGURE 23. CONCEPTUAL CROSS-SECTION OF EXISTING HYDROLOGIC CONDITIONS AT BATTERY CAULFIELD

Source: Jones & Stokes, 2004

items can infiltrate to soils and, ultimately, to the Nike Swale. Storm water runoff from Battery Caulfield is not treated with oil or sediment filters.

Nike Swale Area – Wetlands and native vegetation in the Nike Swale area retain, store, and filter runoff, sediment, and contaminants carried in surface water during storm events. This natural filtering system improves surface water and groundwater quality and provides habitat for birds and wildlife. The wetland area can be degraded from large deposits of sediments and high concentrations of contaminants washed from Battery Caulfield or the nearby road. The Trust currently conducts composting operations on the paved parking lot at the east end of the landfill, and has employed management practices to prevent water quality degradation from the migration of compost and manure via wind and rain (Presidio Trust 2001).

PHSH Complex – Storm drains collect and divert runoff water from the PHSB to a storm sewer line connected to the San Francisco Public Utilities Commission Richmond Transport Station (Presidio Trust 2003). The water quality of Lobos Creek could be threatened if storm drains at the project site are not maintained and therefore cause storm water to flow overland to Lobos Creek. Localized erosion has been noted on the west-facing slope of the parking area on the west side of the PHSB (Urban Watershed Project 2001). Additional erosion and slope failure could discharge hazardous materials and sediment from the underlying landfill, Landfill 10, to Lobos Creek. The Trust plans to resolve slope stability problems as part of its remediation program. Extensive parking lots in the PHSB complex provide a potential source of water quality impairment from oil- and hydrocarbon-contaminated runoff if drainage is prevented from passing to the storm water system.

3.11.1.4 Wetlands

The Nike Swale is a collection of small dune slack wetlands (Presidio Trust 2002). The wetlands have been surveyed by standard delineation methodologies. The wetland area is divided into three separate wetlands: Willow Grove, the Central site, and the Northeast site (NPS & URS Corporation 2003). The Willow Grove wetland appears on the north side of the parking lot west of the Nike Swale. The Central and Northeast wetlands appear at the toe of the Battery Caulfield hillslope. All three wetland features exhibit clayey-sandy soils classified as Sirdrak Sand (NPS & URS Corporation 2003).

The specific water balance and hydrology of the Nike Swale wetlands were not identified in previous studies, although several observations have been made. For example, soils in the wetland area are generally saturated during the rainy season. In the drier season, adjacent soils dry out, although the immediate wetland area can remain moist. Previous groundwater sampling data from Battery Caulfield and Landfill 8 suggest that these wetlands are not supported from the day-lighting of the water table because the groundwater table is 10 to 30 feet below the wetlands surface (see Figure 23).

A flow study was conducted to better identify the hydrologic source for the Nike Swale wetlands. The study indicated that the swale is supplied by shallow subsurface flow fed by the storm drain network (that is blocked and leaking) at Battery Caulfield, and from Battery Caulfield Road (Jones & Stokes 2003). Shallow subsurface flow is generally intermittent, being augmented from storm events, but it can support soil moisture long after individual storm events. Runoff from Battery Caulfield flows subsurface via two

paths: south through an outfall from Drain 1a on the hillslope, and southeast through outfalls from Battery Caulfield Road and Drain 4 on the west side of Battery Caulfield. The Central and Northeast wetlands receive subsurface flow waters from the outfall of Drain 1a. Outfalls from Battery Caulfield Road and Drain 4 direct subsurface flow to the Willow Grove wetland (see Figure 22). The Willow Grove wetland may also collect north-flowing runoff from the parking lot west of the Nike Swale. Surface water collected in the Willow Grove area is present for longer periods than anywhere else within the district.

3.11.2 ENVIRONMENTAL CONSEQUENCES

The PTMP EIS discussed potential changes to hydrology and water quality on pages 240 to 246 and 335 to 341. These discussions are incorporated here by reference and supplemented below by analysis of issues specific to the PSHH project alternatives.

3.11.2.1 Requested No Action Alternative

Under the Requested No Action Alternative, existing land uses could threaten the water quality of the PSHH district. Existing maintenance activities at Battery Caulfield, runoff from Battery Caulfield Road, and the eroding hillslope of Landfill 10 in the PSHH complex may currently degrade the quality of surface water delivered to the Nike Swale and Lobos Creek. Contaminated runoff and sediment from storage of equipment and materials from Battery Caulfield, along with runoff from Battery Caulfield Road, are directed to the Nike Swale area through the existing storm drain network. Contaminated waters and increased sediment would reduce water quality and function of this wetland area. Southward to the PSHH complex, the dilapidated state of the parking lot atop Landfill 10 is increasing the risk of hillslope erosion. Further erosion of this hillslope could increase sediment loading to Lobos Creek. However, the Trust intends to remediate all landfills within the PSHH district as part of the Presidio-wide environmental remediation program and address this potential erosion source. Surface and groundwater hydrology would not be altered under the Requested No Action Alternative, although existing conditions and activities at Battery Caulfield and Battery Caulfield Road could potentially affect water quality of the Nike Swale.

3.11.2.2 Alternative 1: PTMP Alternative

Alternative 1 involves rehabilitation of the existing PSHH complex and requires no new construction. Battery Caulfield would not be affected by Alternative 1, and maintenance operations would continue. Potential water quality impacts on Lobos Creek originating from Landfill 10 would be remediated as discussed under the Requested No Action Alternative.

Resulting changes to hydrology, groundwater, and wetlands under this alternative would not be appreciable. Impervious surfaces and storm water runoff would not noticeably change from existing conditions, nor would any subsurface activity occur that might influence groundwater. However, increased use, increased vehicle activity, and short-term construction activities within the PSHH complex would have the potential to degrade the quality of surface water delivered to Lobos Creek unless properly controlled. Indirect impacts that can be associated with intensification of land use include increases in

concentration of oils, lubricants, grease, sediment, and other pollutants commonly contained in urban runoff.

Similar to the Requested No Action Alternative, degradation of the water quality within the Nike Swale area would continue and potentially increase from ongoing maintenance operations at Battery Caulfield in Alternative 1. Mitigation measures identified below would minimize potentially adverse water quality impacts.

3.11.2.3 Alternative 2: Wings Retained / Trust Revised Alternative

From a hydrologic perspective, Alternative 2 would differ from Alternative 1 in that:

- The ground floor loggia and lobby of Building 1801 would be removed;
- An underground parking structure would be built in the existing basement footprint and between the basement footprints of the non-historic wings of Building 1801; and
- Existing buildings at the entrance to Battery Caulfield may be converted to dwelling units with vehicle parking.

The addition of approximately 0.5 acre of grass landscaped area above the new underground parking facility at Building 1801 may increase rainfall infiltration, reduce site runoff, and provide a water quality filtering benefit. The new underground parking facility is not expected to change groundwater conditions as groundwater elevations are sufficiently below the surface.

Conversion of existing buildings and paved surfaces to accommodate residential uses and parking at the entrance to Battery Caulfield would potentially alter site hydrology and groundwater conditions. Because the existing site condition is largely impervious, residential use would not substantially alter the degree of surface runoff or infiltration. However, the drainage and routing of such runoff would likely be altered by a change in land use. These potential changes to hydrology and groundwater are not considered appreciable. However, because of Battery Caulfield's hydrologic connection to the Nike Swale wetlands below, on-site development that alters the quantity, timing, and delivery of surface and subsurface flows to the Nike Swale can directly influence the functioning of the Nike Swale wetlands. Additionally, increased runoff from the irrigation of landscaped areas during the summer dry season may alter subsurface drainage conditions and increase water delivery to the wetlands during the summer dry season. PTMP EIS Mitigation Measures NR-11/13 *Battery Caulfield and Wetlands/Compliance* would preserve the functioning hydrologic connectivity between Battery Caulfield and the Nike Swale.

Residential activities, including vehicle parking, at Battery Caulfield could affect water quality by introducing water contaminants from landscaping fertilizers or vehicle use. Concentration of oils, grease, herbicides, and nutrients could degrade the quality of waters running off from Battery Caulfield into the Nike Swale. Degraded water quality might contaminate subsurface soils that could then migrate to and degrade the wetlands. Compared to the site's current use as a storage and maintenance yard, however, a conversion to residential use in one portion of the site would likely reduce the presence of certain

contaminants. Overall, a net decrease in water quality contaminants could result from this alternative. Mitigation measures identified below would minimize these potentially adverse impacts on water quality.

The water quality impacts of Alternative 2 would be similar to those of Alternative 1. As in Alternative 1, potential water quality impacts on Lobos Creek from Landfill 10 would be remediated under a separate project. Maintenance operations would continue on the eastern portion of Battery Caulfield; therefore adverse impacts on water quality of the Nike Swale, as discussed under the Requested No Action Alternative, would remain. Intensification of site use, increased vehicle activity, and short-term construction activities related to building renovation/construction may increase the concentration of oils, lubricants, grease, sediment, and other pollutants commonly contained in urban runoff. Mitigation measures identified below would minimize these potentially adverse water quality impacts.

3.11.2.4 Alternative 3: Wings Removed Alternative

Alternative 3 involves removal of wings from Building 1801 and no underground parking facility or other new construction. In removing the building wings, Alternative 3 would provide an additional acre of grass landscaped area and provide a hydrology and water quality benefit through increased infiltration and reduced runoff. Similar to Alternatives 1 and 2, the intensification of site use, increased vehicle activity, and short-term construction activities related to building renovation/demolition may increase the concentration of oils, lubricants, grease, sediment, and other pollutants commonly contained in urban runoff. Alternative 3 differs from the previous alternatives in its greater extent of building demolition and removal. As discussed under Alternatives 1 and 2, potential water quality impacts on Lobos Creek from existing landfills would be remediated as a separate project. Battery Caulfield would not be affected by Alternative 3, and maintenance operations would continue; therefore negative impacts on water quality at the Nike Swale, as discussed under the Requested No Action Alternative, would remain under Alternative 3. Alternative 3 would involve greater land disturbance activities at the PHS complex that could affect water quality of downstream Lobos Creek. However, because demolition activities would be temporary, impacts on hydrology and water quality at the PHS complex would be less than significant with implementation of the mitigation measures identified below.

3.11.2.5 Alternative 4: Battery Caulfield Alternative

Alternative 4 includes elements of Alternative 3 at the PHS complex and also involves new residential construction at Battery Caulfield and east of Building 1801 (two new residential buildings, including one three-story building and one two-story house). The new three-story residential building would be built in the existing footprint of Belles Street. The two-story dwelling unit would be constructed in a vegetated area south of Building 1815. These new buildings have the potential to increase the quantity of surface runoff compared to existing conditions within the PHS complex. However, a substantial alteration to surface hydrology is not anticipated. Mitigation measures identified below would minimize these potentially adverse impacts.

As discussed above for Alternative 2, residential use at Battery Caulfield could alter the amount, flow, and quality of waters delivered to the Nike Swale. Alternative 4 would develop a substantially larger number of residences and parking than proposed under Alternative 2. The new construction and land use

could potentially alter the hydrology and water quality at Battery Caulfield. Compared to the site's current use, however, conversion to residential use, regardless of the number of units, would likely reduce the presence of certain contaminants because the existing activities are potentially affecting the water quality of the surrounding area. Further, use of Battery Caulfield for housing would reduce but not eliminate pollutant delivery to the Nike Swale.

Alterations to water resources associated with renovation/construction of Building 1801 and removal of its non-historic wings are consistent with conditions described above under Alternative 3. The number of dwelling units constructed at the PHSH complex would be the smallest of all the alternatives.

Compared to the Requested No Action Alternative and other alternatives, Alternative 4 would reduce water quality impacts on the Nike Swale by ceasing operations and maintenance use of Battery Caulfield. Alternative 4 has the potential to affect hydrology and water quality in the same manner as Alternative 2 because both would place dwelling units at Battery Caulfield. However, the magnitude of land use impacts on hydrology and water quality at the Nike Swale would be intensified under Alternative 4. Mitigation measures identified below would minimize these potentially adverse impacts on water quality.

3.11.2.6 Park Presidio Boulevard Access Variant

This variant would provide improved vehicular access to the PHSH district under Alternatives 1, 2, 3, and 4. New construction to widen existing roads and create a new intersection would require grading and removal of vegetation. Resulting increases in impervious surfaces and vehicular use are expected to increase storm water runoff and concentrations of urban runoff contaminants. Unless addressed, construction and operational runoff could potentially threaten water quality in nearby Mountain Lake.

During construction, the Trust would implement best management practices to prevent discharges to Mountain Lake. The Trust has requested that Caltrans redirect storm water flows from Park Presidio Boulevard away from Mountain Lake. The Park Presidio Boulevard Access Variant is not expected to substantially alter hydrology, groundwater, or water quality if best management practices are implemented. Reductions in storm water runoff in the area would be achieved not only by directing storm water flows associated with Park Presidio Boulevard away from Mountain Lake, but also by redirecting runoff in the vicinity of the Wyman Avenue houses.

3.11.2.7 Cumulative Effects

Implementation of the PHSH project could potentially contribute to the cumulative degradation of surface and groundwater quality, due to changes in local hydrology and increased contamination that may result from new construction and land use activities at Battery Caulfield and the PHSH complex. However, the Trust's effort to restore, enhance, and expand wetland habitat provides long-term beneficial impacts that outweigh potential short-term impacts. Mitigation measures adopted as part of the project, including implementation of a storm water pollution prevention plan and best management practices, would minimize potentially adverse cumulative impacts on surface water and groundwater quality.

3.11.3 MITIGATION MEASURES

The following mitigation measures are adapted from the PTMP EIS and have been modified (where necessary) to incorporate and respond to the PSHH project. These measures are considered conditions of approval due to their adoption at the end of the PTMP planning and environmental review process, and will be implemented in all alternatives except where noted. Implementation of these measures will collectively minimize or avoid all potentially adverse effects related to hydrology, wetlands, and water quality.

NR-11/13 *Battery Caulfield and Wetlands/Compliance* – To avoid potential impacts on (and preserve) the hydrologic functioning of the Nike Swale wetlands, the Trust will specifically address water delivery and water quality requirements for the Nike Swale through the following mitigation measures in every alternative that proposes land use or drainage changes at Battery Caulfield.

- Water balance conditions of the Nike Swale wetlands will be identified to assess general rates of water supplied to wetlands.
- Hydrologic conditions of proposed development will be evaluated in terms of storm water runoff rates and potential dry summer season inputs to soil moisture from garden irrigation.
- A storm water and drainage plan for proposed Battery Caulfield development will be designed (in light of the two above points) to maintain adequate water supply to existing wetlands features. This drainage plan will consider the potential role that (a) decreases of winter-related runoff or (b) increases in summer soil moisture may have in significantly affecting the wetlands.
- The storm water and drainage plan for the proposed Battery Caulfield site will evaluate how changes/replacement (of drains, pipes, and outfalls) in the existing storm drain network will affect the delivery of flows to the Nike Swale wetlands.
- The proposed development project at Battery Caulfield will include best management practices to maintain water quality at the Nike Swale wetlands. Such practices/treatments may include oil/water filtration systems, spill containment vaults, or other approaches to maintain good water quality in the wetlands.

NR-14 *Visitor Management* – To reduce potential visitor impacts on the wetlands and storm drainages in and adjacent to the PSHH district, visitor numbers and uses will be monitored on a recurring basis and measures will be taken to reduce impacts as necessary. Informational leaflets, wayside signs, and regulatory measures will be employed as warranted.

NR-15 *Water Resources Best Management Practices* – To address potentially significant impacts on water resources associated with the project alternatives, the Trust will implement (at a minimum) the following best management practices and will require its private development partner(s) to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP):

- Maintain appropriate erosion and siltation controls during construction to prevent downstream sediment yields to the Nike Swale wetlands, Lobos Creek, Mountain Lake, or the engineered storm drain and sewer collection system.
- Permanently stabilize all exposed soil or fill except where it is deemed appropriate for dune habitat to have some sand movement.
- Initiate water conservation programs and waste minimization and management programs, including education and monitoring, for project and Trust operations as well as for residents and tenants.
- Ensure that all newly constructed impervious surfaces prevent, to the greatest extent feasible, increased water runoff volume and velocity, reduced water quality, and reduced water infiltration.
- Properly maintain structures or fill to avoid adverse impacts on aquatic environments and public safety.
- Maintain existing (or new) drains and culverts to prevent blocking, sediment accumulation, and potential erosion downstream of outfalls.
- (*Alternative 2 only*) Ensure that modification of the existing basement structure in the vicinity of Building 1801 to accommodate an underground parking facility will not alter subsurface groundwater flow. Due to the presence of hazardous waste underlying the large parking area west of the PHSB, the diversion subsurface drainage around the underground parking facility will not divert toward Landfill 10. Altering shallow subsurface flow paths could increase the release and transport of hazardous chemicals toward Lobos Creek.

NR-16/17/19 *Demolition and Construction Activities and Future Design (Alternative 4 Only)* – Because construction at Battery Caulfield would occur within 100 feet of existing wetlands, the following measures will be implemented:

- Install fencing or other barriers adjacent to the Nike Swale to prevent inadvertent human, pet, or equipment access.
- Regularly inspect the Nike Swale to enforce compliance, and/or provide signage and/or other educational devices near the Nike Swale to encourage voluntary compliance.
- During the planning phases for new construction at Battery Caulfield, prevent alterations to drainage patterns or water movement that could induce erosion or siltation on- or off-site. Exceedance of existing or planned storm water drainage systems, or the infiltration rates of soils at Battery Caulfield and the Nike Swale area, will be prevented. Planning and construction at the Battery Caulfield site, as proposed in Alternative 4, will also be consistent with Mitigation Measures NR-11 *Battery Caulfield*, NR-13 *Wetlands/Compliance*, and UT-7 *Storm Water Reduction*.

UT-6 *Storm Water Drainage System Upgrades* – To maintain adequate system capacity and to correct existing operational problems, the Trust will ensure that necessary infrastructure upgrades to the storm water drainage system are performed. All increases in surface water flow will be directed toward the City and County of San Francisco’s combined sewer system and not to Mountain Lake or Lobos Creek.

To avoid alterations to the Nike Swale wetlands and to preserve the hydrological functioning of these wetlands, the Trust will ensure that drainage network changes at Battery Caulfield will occur in accordance with Mitigation Measures NR-11 *Battery Caulfield* and NR-13 *Wetlands/Compliance*.

UT-7 *Storm Water Reduction* – The Trust will implement designs or measures to limit or eliminate impervious surfaces in order to reduce storm water runoff volumes and improve water quality. The Trust will practice natural storm water reduction by using on-site vegetation and landscaping as filtration and retention systems to the extent feasible. Such storm water reduction planning will likely occur with the reduction of the built footprint and increase in landscaped area in the PSHH complex. Approaches to reducing storm water runoff at Battery Caulfield will occur in consideration of the existing hydrologic connection to the Nike Swale wetlands and shall be consistent with the conditions of Mitigation Measures NR-11 *Battery Caulfield*, NR-13 *Wetlands/Compliance*, and NR-19 *Future Design*.

Mitigation Measure NR-18 *Compensation* discussed in the PTMP EIS is not relevant to the implementation of these alternatives.

3.12 Biology

3.12.1 AFFECTED ENVIRONMENT

Biological resources, including wetland and riparian communities, are described on pages 83 to 121 of the PTMP EIS. Information relevant to the PSHH district is repeated here and has been supplemented based on additional consultation with the NPS, additional field surveys undertaken in the fall of 2003, and public and agency comments.

The PSHH district is on an elevated plateau that separates Mountain Lake and Lobos Creek (see Figure 24). Prior to its development, the area was part of the vast San Francisco dune complex that stretched across the northern half of the San Francisco peninsula. Somewhat sheltered from the immediate coast, the area developed stable dunes that supported dune scrub vegetation in various stages of succession and regeneration (USFWS 2003). Development within the PSHH district significantly altered natural dune processes (e.g., sand transport, sand accumulation, and wind erosion) and removed much of the existing vegetation. Only remnant dune patches remain.

3.12.1.1 Existing Biological Habitats and Resources

Remnant and restored dune patches in the vicinity of the PSHH district currently support unique and ecologically significant native plant communities and provide important habitat for wildlife, including the largest known California quail (*Callipepla californica*) population in the San Francisco region. Five of these areas, two west of Battery Caulfield Road and outside the PSHH district, one north of Building 1801, one west of the Presidio Golf Course, and one in the restored dunes at Lobos Creek (also outside the PSHH district), are included in the Presidio recovery unit for the San Francisco lessingia (*Lessingia*

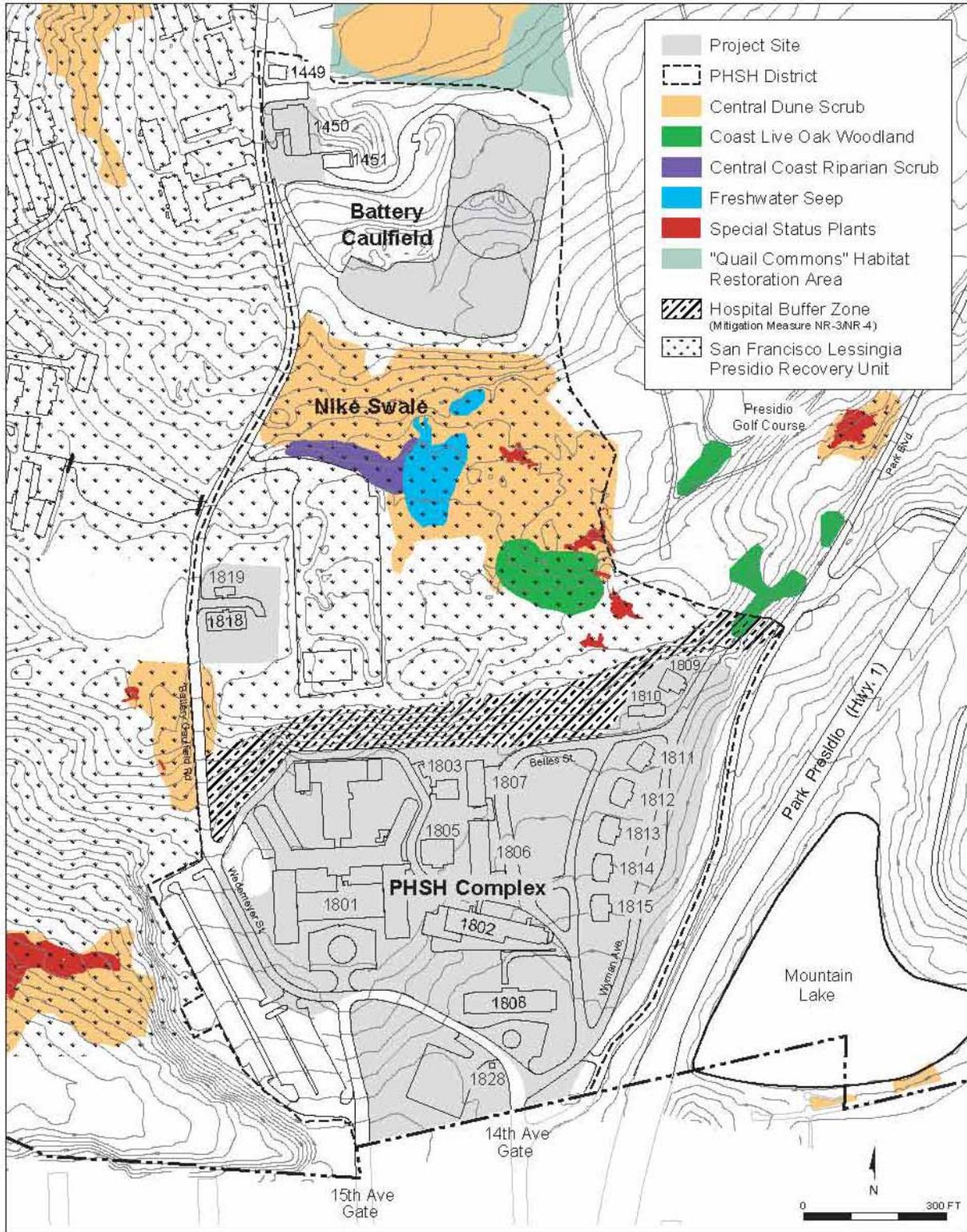


FIGURE 24. BIOLOGICAL RESOURCES

Source: Presidio Trust, 2006; USFWS, 2004

germanorum), an endangered plant species (USFWS 2003). The remnant dune north of the hospital supports a locally rare example of coast live oak woodland (Vasey 1996) and small colonies of San Francisco lessingia, San Francisco spineflower (*Chorizanthe cuspidata* var. *cuspidata*), and San Francisco dune gilia (*Gilia capitata* ssp. *-chamissonis*) (Doherty 2002). The central part of the project area includes the Nike Swale, a graded and filled dune area that supports locally rare coastal dune slack (i.e., freshwater-filled dune depression) vegetation. The NPS restored native vegetation within the dune sites, and the sites are currently protected and managed pursuant to the PTMP. A sixth dune remnant north of Battery Caulfield provides important California quail nesting and foraging habitat (Presidio Trust 2002e).

Four native plant communities occur within the vicinity of the PHSH district: freshwater seep, central coast riparian scrub, central dune scrub, and coast live oak woodland (see Figure 24). Non-native plant communities and developed and landscaped areas also occur in and adjacent to the district.

Freshwater Seep – Freshwater seep vegetation occurs in areas where groundwater seepage creates permanently or periodically saturated soils. Freshwater seeps occur throughout the Presidio and include several small seeps within the Nike Swale south of Battery Caulfield (Castellini and Coffman 2003). Freshwater seep vegetation typically includes rushes, sedges, and other plants adapted to moist or wet growing conditions. Freshwater seep vegetation within the Nike Swale includes arroyo willow (*Salix lasiolepis*), wax myrtle (*Myrica californica*), and rush (*Juncus effusus*). Representative wildlife observed in this habitat includes marsh wren (*Cistothorus palustris*) and song sparrow (*Melospiza melodia*).

Central Coast Riparian Scrub – Central coast riparian scrub is a shrub-dominated community adapted to the high moisture levels and frequent flooding characteristic of areas along lakes, streams, and perennial springs. Near the PHSH district, an isolated stand of central coast riparian scrub occurs along the southwestern edge of the Nike Swale in a small depression that receives and channels runoff from the district (Castellini and Coffman 2003). Riparian scrub within the Nike Swale includes shining willow (*Salix lucinda* ssp. *lasiandra*), arroyo willow, wax myrtle, rush, and California blackberry (*Rubus ursinus*). Representative wildlife observed in this habitat includes Bewick's wren (*Thryomanes bewickii*), ruby-crowned kinglet (*Regulus satrapa*), yellow-rumped warbler (*Dendroica coronata*), and white-crowned sparrow (*Zonotrichia leucophrys*).

Central Dune Scrub – Central dune scrub occurs on stable dune deposits inland from the immediate coast. Central dune scrub occurs in patches over a total of 48.5 acres in the Presidio (Presidio Trust 2002b) and is rare in California. Near and within the PHSH district, patches of central dune scrub occur on the restored dunes north of Lobos Creek, west of Battery Caulfield Road, north of the PHSH, north of Battery Caulfield, and west of the Presidio Golf Course. Central dune scrub contains densely packed shrubs interspersed with sparsely vegetated openings in the shrub canopy. Common plants include mock heather (*Ericameria ericoides*), coyote brush (*Baccharis pilularis*), Chamisso's lupine (*Lupinus chamissonis*), dune knotweed (*Polygonum paronychia*), and dune buckwheat (*Eriogonum latifolium*). Dune field disturbances, including erosion, sand accumulation, and animal burrowing, create openings in the dune scrub that support several special-status plants, including San Francisco lessingia, San Francisco spineflower, San Francisco campion (*Silene verecunda* ssp. *verecunda*), San Francisco wallflower (*Erysimum franciscanum*), and San Francisco dune gilia. Representative wildlife observed in this habitat

includes wintering Bewick's wren, house finch (*Carpodacus mexicanus*), California towhee (*Pipilo crissalis*), and white-crowned sparrow.

Coast Live Oak Woodland – Coast live oak woodland occurs on sheltered, stable dune deposits away from the immediate coast. A stand of small, multi-trunked coast live oaks occurs on a relict dune northeast of the PHSH. Coast live oak woodland occurs on only 5.3 acres in the Presidio (Presidio Trust 2002b). Representative wildlife observed in this habitat includes Hutton's vireo (*Vireo huttoni*), western scrub-jay (*Aphelocoma californica*), yellow-rumped warbler, and white-crowned sparrow.

Non-Native Plant Communities – Non-native plant communities are dominated by species that humans have deliberately or accidentally introduced. Non-native plants in the vicinity of the project site include non-native annual grasses on landfill north of Building 1801, a non-historic Monterey pine (*Pinus radiata*) stand on the slope behind the PHSH, and iceplant (*Carpobrotus edulis*) mats on the slope below Battery Caulfield. Representative wildlife observed in this habitat includes northern flicker (*Colaptes auratus*), European starling (*Sturnus vulgaris*), chestnut-backed chickadee (*Poecile rufescens*), and pygmy nuthatch (*Sitta pygmaea*).

Developed and Landscaped Areas – Developed and landscaped areas include buildings, landscaping around buildings, ornamental plantings, parking lots, and paved roads. Developed and landscaped areas in the PHSH district include the PHSH complex on the lower plateau, outlying buildings (Buildings 1450, 1818, and 1819), Battery Caulfield on the upper plateau, and Battery Caulfield Road.

3.12.1.2 Special-Status Species

Special-status species are those species legally protected under the Federal Endangered Species Act (FESA), species proposed or candidates for listing under FESA, and "sensitive" species that are considered sufficiently rare by the scientific community to qualify for such listing.

Special-Status Plants – Of the 13 endangered, threatened, and sensitive plants found on the Presidio, five occur in the vicinity of the project site (Doherty 2002), as described below. A summary of these species is provided in Table 26. (For purposes of this SEIS, "project site" is defined as the previously developed portions of the district, which include the PHSH complex and Battery Caulfield.)

San Francisco Lessingia. San Francisco lessingia is a low-growing annual in the sunflower family with deep lemon yellow flowers. It is endemic to the northern San Francisco peninsula from San Mateo County north to the Presidio. Four of the seven remaining lessingia colonies occur in the vicinity of the PHSH district and are included in the Presidio recovery unit for the species (USFWS 2003). Lessingia populations occur in the restored dunes at Lobos Creek and in remnant dune patches west of Battery Caulfield Road, northeast of the PHSH, and in a steep roadcut bordering the Presidio Golf Course.

San Francisco Spineflower. San Francisco spineflower is an annual plant in the buckwheat family with soft, hairy stems and white-to-rose flowers. It is restricted to open or sparsely vegetated areas on sand or sandy soils along the immediate coast, from San Mateo County to Southern Sonoma County (USFWS

2003). San Francisco spineflower occurs in the remnant dune patches northeast of Building 1801 and west of Battery Caulfield Road, and in the restored dunes at Lobos Creek.

Table 26. Known Occurrences of Special-Status Plant Species Near the Project Site

COMMON NAME	SCIENTIFIC NAME	FEDERAL/STATE/CNPS STATUS
San Francisco spineflower	<i>Chorizanthe cuspidate</i> var. <i>Cuspidata</i>	(FSC)/-/1B
Dune gilia	<i>Gilia capitata</i> ssp. <i>chamissionis</i>	-/-/ 1B
San Francisco lessingia	<i>Lessingia germanorum</i>	FE/CE/1B
San Francisco wallflower	<i>Erysimum franciscanum</i>	(FSC)/-/4
San Francisco campion	<i>Silene verecunda</i> ssp. <i>verecunda</i>	(FSC)/-/1B

Source: California Department of Fish and Game 2001.

Notes:

Status definitions:

- = no listing status

Federal: U.S. Fish and Wildlife Service.

FE = listed as endangered under the Federal Endangered Species Act

(FSC) = Federal Special Concern Species (former Category 2 candidates)

State: California Department of Fish and Game.

CE = listed as endangered under the California Endangered Species Act

CNPS: California Native Plant Society.

1B = List 1B species: rare, threatened, or endangered in California and elsewhere

4 = List 4 species: a “watch-list” of plants of limited distribution

Dune Gilia. Dune gilia is an annual plant in the phlox family with showy deep violet flowers. It is restricted mostly to vegetation gaps in low-growing central dune scrub and stable dune grassland from San Mateo County to Sonoma County (USFWS 2003). Dune gilia occurs in the remnant dune patches northeast of Building 1801 and west of Battery Caulfield Road, and in the restored dunes at Lobos Creek (Doherty 2002).

San Francisco Wallflower. San Francisco wallflower is a perennial or subshrub in the mustard family with showy cream-colored to yellow flowers. It occurs in open or sparsely vegetated areas in central dune scrub and bluff scrub plant communities. San Francisco wallflower occurs in the restored dunes at Lobos Creek.

San Francisco Campion. San Francisco campion is a perennial plant in the pink family with white-to-rose flowers. It is restricted to dune scrub habitats between San Francisco and Santa Cruz (USFWS 2003). A remnant population of San Francisco campion currently occurs in Area B of the Presidio along Lincoln Boulevard at the “Silene Site.” This species was reintroduced to the restored Lobos Creek dunes between 1996 and 1998, where only a few individuals survive today.

Special-Status Wildlife – Special-status wildlife species with potential to occur in or near the PHS district are described below. A summary of these species is provided in Table 27.

Table 27. Occurrences of Special-Status Wildlife Species On or Near the Project Site

COMMON NAME	SCIENTIFIC NAME	STATUS	
		FEDERAL/STATE	POTENTIAL FOR OCCURRENCE IN PROJECT AREA
San Francisco forktail	<i>Ischnura gemina</i>	SC/-	At the Presidio, only documented near Fort Point (Presidio Trust 2002b).
California quail	<i>Callipepla californica</i>	Local concern	Nearly extirpated from San Francisco and the Presidio. A covey remains on Quail Commons and the project site (LSA Associates, Inc. 2001; Harley et al. 2003).
Western screech-owl	<i>Otus kennicottii</i>	Local concern	Nearly extirpated from San Francisco and the Presidio. At least one pair remains near Inspiration Point (Jones & Stokes 1997).
Long-eared owl	<i>Asio otus</i>	-/SSC	No records available, but species is easily overlooked and is likely to occur at least rarely during migration.
Olive-sided flycatcher	<i>Contopus cooperi</i>	SC/SSC	Breeds in the Presidio and documented on the project site (Rosegay 1996, Gardali 2001).
Willow flycatcher	<i>Empidonax traillii</i>	SC/E	Probably an uncommon migrant on the project site and at the Presidio (Presidio Trust 2002b).
Hutton's vireo	<i>Vireo huttoni</i>	Local concern	Documented from the project site and elsewhere at the Presidio (Presidio Trust 2002b, Rosegay 1996).
Loggerhead shrike	<i>Lanius ludovicianus</i>	-/SSC	Rare visitor with few records for the Presidio (Presidio Trust 2002b).
Wrentit	<i>Chamaea fasciata</i>	Local concern	Probably extirpated from the Presidio and San Francisco (Gardali 2003).
Yellow warbler	<i>Dendroica petechia brewsteri</i>	-/SSC	Probably a common migrant on the project site and at the Presidio (Presidio Trust 2002b).
Yellow-breasted chat	<i>Icteria virens</i>	-/SSC	No records available, but species is easily overlooked and is likely to occur during migration.
Western red bat	<i>Lasiurus blossevillii</i>	FS/-	Unknown; acoustic surveys will be conducted prior to construction; known from the San Francisco region.

Table 27. Occurrences of Special-Status Wildlife Species On or Near the Project Site

COMMON NAME	SCIENTIFIC NAME	STATUS		POTENTIAL FOR OCCURRENCE IN PROJECT AREA
		FEDERAL/STATE		
Townsend's big-eared bat	<i>Corynorhinus townsendii townsendii</i>	SC/SSC		Unknown; acoustic surveys will be conducted prior to construction; known from the San Francisco region.
Fringed myotis	<i>Myotis thysanodes</i>	SC/-		Unknown; acoustic surveys will be conducted prior to construction; known from the San Francisco region.
Long-eared myotis	<i>Myotis evotis</i>	SC/-		Unknown; acoustic surveys will be conducted prior to construction; known from the San Francisco region.
Long-legged myotis	<i>Myotis volans</i>	SC/-		Unknown; acoustic surveys will be conducted prior to construction; known from the San Francisco region.
Pallid bat	<i>Antrozous pallidus</i>	-/SSC		Unknown; acoustic surveys will be conducted prior to construction; known from the San Francisco region.

Source: Jones & Stokes.

Notes:

SC = Species of Concern (federal)

SSC = Species of Special Concern (state)

E = Endangered (both federal and state)

FS = U.S. Forest Service Sensitive Species

San Francisco Forktail. The San Francisco forktail (*Ishnura gemina*) is a small damselfly endemic to the Bay Area, from Bodega Bay south to the Salinas River in Monterey County and eastward into Contra Costa and Alameda Counties (Manolis 2003). It was formerly considered a Federal Species of Concern because of its small range. Previous survey efforts located it at the Presidio, only near Fort Point (Presidio Trust 2002b). The freshwater seeps in the Nike Swale may provide suitable habitat for this species.

Nesting Raptors. Several species of raptors may nest in the PHSH district, including red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), great horned owl (*Bubo virginianus*), and Cooper's hawk (*Accipiter cooperii*), although the latter has yet to be found nesting in San Francisco (Presidio Trust 2002b). The other four raptors may nest in the eucalyptus (*Eucalyptus* spp.) trees along the eastern edge of the Nike Swale and Battery Caulfield and in other large trees on and adjacent to the PHSH district. Active raptor nests are protected under the Migratory Bird Treaty Act, 16 U.S.C. Sections 703-712.

Long-Eared Owl. The long-eared owl (*Asio otus*) is a rare local breeder, but it is a regular fall migrant and occasional winter visitor to coastal California. It is a California Department of Fish and Game (CDFG) Bird Species of Special Concern. Long-eared owls roost during the day in dense coniferous and other evergreen trees, often near open areas such as grasslands, wetlands, and open brushlands where they hunt at night for rodents and other prey (Grinnell and Miller 1944, Marks et al. 1994). Although this species is not likely to nest in the area, the conifers, oaks, and willow thickets throughout the PHSH district provide potential roost sites for this owl.

Olive-sided Flycatcher. The olive-sided flycatcher (*Contopus cooperi*) is a widespread but declining species throughout much of the forested regions in California (Altman and Sallabanks 2000). It is a CDFG Bird Species of Special Concern. These neotropical migratory birds are closely associated with large coniferous trees and snags, often on the edges of meadows, clearcuts, and other open areas where they sally for insects (Altman and Salabanks 2000). In San Francisco, this flycatcher breeds in the Presidio (Rosegay 1996) and also migrates through the area during the spring and fall. The conifers and eucalyptus trees in the PHSH district provide nesting and foraging habitat for this species.

Willow Flycatcher. The willow flycatcher (*Empidonax traillii*) is a California-listed endangered species that breeds in montane meadows and, in southern California, in lowland riparian areas (Grinnell and Miller 1944). In San Francisco, however, it is strictly a spring and fall migrant. The trees, shrubs, and especially the willows in the PHSH district provide foraging and roosting habitat for this species.

Loggerhead Shrike. The loggerhead shrike (*Lanius ludovicianus*) has declined in urban areas of California (Yosef 1996) and is a rare visitor to San Francisco. It is a CDFG Bird Species of Special Concern. Shrikes prey upon small vertebrates, including birds and large insects (Yosef 1996), and may occur sporadically during migratory movements in the open areas of the PHSH district, as they have occurred a few times in the Presidio (Jones & Stokes 1997). There are no nesting records for San Francisco (Presidio Trust 2002b).

Yellow Warbler. The yellow warbler (*Dendroica petechia*) has declined as a breeding bird throughout lowlands of California because of loss of riparian habitat and increased brown-headed cowbird (*Molothrus ater*) brood parasitism (Grinnell and Miller 1944, Lowther et al. 1999). It is a CDFG Bird Species of Special Concern. In San Francisco, these warblers are common migrants that are attracted to flowering eucalyptus and other exotic plants, as well as willows, pines, and various native shrubs where they forage on nectar and arthropods. Within the PHSB district, riparian habitat in the Nike Swale provides suitable foraging habitat for migrant yellow warblers.

Yellow-Breasted Chat. The yellow-breasted chat (*Icteria virens*) has declined as a breeding bird throughout lowlands of California because of loss of riparian habitat and increased cowbird brood parasitism (Grinnell and Miller 1944, Eckerle and Thompson 2001). It is a CDFG Bird Species of Special Concern. In San Francisco, chats are rare migrants. The willow thicket in the Nike Swale provides suitable breeding habitat for this species.

3.12.1.3 Special-Status Bats

There are 13 bat species that could occur in the San Francisco region, six of which have some level of special status (Heady and Frick 2003). Bat species such as fringed myotis (*Myotis thysanodes*), long-legged myotis (*Myotis volans*), Townsend's big-eared bat (*Corynorhinus townsendii*), pallid bat (*Antrozous pallidus*), western red bat (*Lasiurus blossevilli*), and long-eared myotis (*Myotis evotis*) may roost and forage in the buildings within the PHSB complex. A survey conducted by Central Coast Bat Research Group in November 2003 determined that special-status bats are not using PHSB buildings for maternity roosts; however, Building 1807 does exhibit evidence of night roosting activity. Buildings in the 1800 series contain suitable habitat for bats because of the ceramic tile roofs, while window coverings on some buildings also provide roost habitat for these species (Heady and Frick 2003).

3.12.1.4 Species of Local Concern

California Quail – The California quail (*Callipepla californica*) is a common and widespread bird throughout much of California (Grinnell and Miller 1944). In San Francisco, however, its population and distribution has declined drastically since the 1980s, to the extent that the Golden Gate Audubon Society initiated a "Save the Quail" campaign (LSA Associates, Inc. 2001) and it is considered a Species of Local Concern (Presidio Trust 2002b). The Presidio currently has only one known population of California quail remaining. As a result, the Presidio has designed a quail habitat enhancement action plan intended to reverse this population decline.

Quail nest and forage in chaparral, dune scrub, oak savanna, riparian, and other habitats that provide perennial sources of water and ample cover to protect them from predators (Calkins et al. 1999). Nest sites are typically on the ground or slightly elevated in areas that provide protective cover such as dense clumps of grass and weeds, fencerows, shrubs, brush piles, fallen trees and limbs, and vines (Shuford 1993). In the Presidio, California quail breed at Quail Commons, which is just north of the PHSB district (see Figure 24). It is unclear, however, whether quail from the lone Presidio covey breed there exclusively every year, or in adjacent areas, possibly including the PHSB district (personal communication with Thomas Gardali, Point Reyes Bird Observatory).

Within the PHSH district, quail breeding and foraging habitat is located in the Nike Swale and adjacent dune scrub habitat. There are two existing quail movement corridors located in the upper plateau of the PHSH district. One is located along the eastern border of the PHSH district adjacent to the Presidio Golf Course along the row of eucalyptus trees, and the second is located along the western edge of the PHSH district in the row of Monterey pines (and other vegetation along Battery Caulfield Road). Quail may also use the large wax myrtle and other shrubs north of the maintenance/corporation yard as another movement corridor. These movement corridors are important because they provide safe links between Quail Commons and the restored dune scrub and riparian habitat along Lobos Creek.

During a visit to the PHSH district on November 3, 2003, a Jones & Stokes biologist observed a flock of 13 quail above the Nike Swale at the western edge of the maintenance yard. Seven were males, including two color-banded individuals, and six were females, including one that was color-banded. The unbanded quail may be hatch-year birds, indicating successful recruitment, or they may be immigrants from other populations. All of the quail detected during banding activities and formal surveys in the fall of 2002 were at Quail Commons, with some individuals also detected across Battery Caulfield Road (Harley et al. 2003). One of the individuals banded at Quail Commons has been found in Golden Gate Park. Quail Commons and the area immediately surrounding Quail Commons contain the only known breeding population of California quail within the Presidio and one of few left in San Francisco. The Arboretum in Golden Gate Park is another known breeding location in the region.

Western Screech-Owl – The western screech-owl (*Otus kennicottii*) is a common and widespread species throughout much of California (Grinnell and Miller 1944, Cannings and Angell 2001). In San Francisco, its only historic occurrence is at Inspiration Point at the Presidio, but it has been detected in recent years at Arguello Gate and Lobos Creek (Jones & Stokes 1997). It is considered a Species of Local Concern (Presidio Trust 2002b). Screech-owls roost during the day in dense coniferous and other evergreen trees and hunt at night for rodents, large insects, and other prey in woodlands and open habitats (Cannings and Angell 2001). In California, they are often associated with oaks. The live oaks at the south end of the Nike Swale may provide roost and nest sites for this owl.

Hutton's Vireo – The Hutton's vireo (*Vireo huttoni*) is a common and widespread species throughout much of the oak woodlands of California (Grinnell and Miller 1944). In San Francisco, it is restricted to a few locations, including some in the Presidio (Rosegay 1996), and is a Species of Local Concern (Presidio Trust 2002b). This species was detected during a visit to the PHSH district on November 3, 2003. The oak and conifer trees in the PHSH district provide breeding habitat for Hutton's vireo.

Wrentit – The wrentit (*Chamaea fasciata*) is a common and widespread species throughout much of the chaparral and other shrublands of California west of the Sierra-Cascade crest and the desert regions (Grinnell and Miller 1944). In San Francisco, it is restricted to very few locations and may be extirpated from the Presidio (Gardali 2002). It is considered a Species of Local Concern (Presidio Trust 2002b). The riparian and dune scrub in the Nike Swale provides breeding and dispersal habitat for the wrentit.

3.12.2 ENVIRONMENTAL CONSEQUENCES

Natural resource implications of the PTMP are discussed on pages 225 to 247 of the PTMP EIS. This analysis is incorporated here by reference and summarized and expanded upon below where relevant to the PHSH district and to the alternatives being evaluated. Under all five alternatives, there would be no direct removal of habitat or individual populations of special-status species. The alternatives vary, however, in their potential for indirect impacts on special-status species and significant plant communities.

To avoid or minimize potential indirect impacts on biological resources, mitigation measures are identified. These measures are consistent with those identified in the PTMP EIS and would avoid or minimize adverse impacts on biological resources.

3.12.2.1 Requested No Action Alternative

Under the Requested No Action Alternative, there would be no direct removal of native plant communities, special-status plants, or special-status wildlife or their habitats because there would be no additional building rehabilitation, demolition, or new construction. In addition, all existing vacant buildings would be deactivated and the buildings that are or can be readily occupied would provide about 68,000 sf of non-residential use. Non-residential use would consist of mostly cultural and educational activities and some office facilities on both the upper and lower plateaus. Human presence associated with non-residential uses could indirectly affect native plant communities and special-status plants through off-trail use and accidental trampling. Human presence could also indirectly affect native and special-status wildlife, in particular nesting birds and California quail, through noise disturbance and traffic.

After remediation of Landfill 10, the existing parking lot west of the PHSH complex would be replaced by a smaller parking area, landscaped open space, and dune scrub vegetation. These actions should have a long-term beneficial effect on Presidio native plant communities because they would expand native dune habitat, improve habitat connectivity between the Lobos Creek dune system and isolated dune scrub patches along Battery Caulfield Road and northeast of the PHSH complex, and complement ongoing habitat restoration activities under the Presidio's park stewardship program.

3.12.2.2 Alternative 1: PTMP Alternative

Native Plant Communities – Under Alternative 1, rehabilitation of the PHSH complex would create up to 173,000 sf of residential and other uses, most likely educational. Also under this alternative, 17,000 sf of existing building area on the upper plateau would be used for a mix of office and cultural/educational activities. The total maximum building area under Alternative 1 would be 400,000 sf. Rehabilitation activities such as construction staging, stockpiling, and vehicle movement would be restricted to developed sites. Under this alternative, there would be no direct removal of native plant communities or their habitat.

After remediation of Landfill 10, the existing parking lot west of the PHSH complex would be replaced by a smaller parking area, landscaped open space, and dune scrub vegetation. As described above under

the Requested No Action Alternative, these actions should have long-term beneficial effects on Presidio native plant communities because they would expand native dune habitat, improve habitat connectivity between the Lobos Creek dune system and isolated dune scrub patches along Battery Caulfield Road and northeast of the PSHH complex, and complement ongoing habitat restoration activities under the Presidio's park stewardship program.

Rehabilitation, operation, and human use of the lower plateau associated with 210 dwelling units and 173,000 sf of cultural and educational activities could indirectly affect both remnant and restored native plant communities by increasing tenant, visitor, and pet traffic; releasing water and fertilizer from landscaped vegetation to adjacent dune soils; and facilitating the accidental spread of invasive, non-native plants from worker clothing, equipment, and new landscaping. These activities could disturb native plants, increase soil moisture and nutrient amounts to levels that favor the establishment of weedy non-native vegetation, and fragment native plant communities. In addition, heavy day use by students associated with expansion of educational facilities could indirectly affect native plant communities through off-trail use and accidental trampling. Alternative 1 would result in more indirect impacts on native plant communities than the Requested No Action Alternative.

Implementation of the mitigation measures identified at the end of this section would substantially reduce potential indirect impacts on native plant communities near the project site.

Special-Status Plants – Rehabilitation within the PSHH complex is not expected to directly affect special-status plant populations near the project site. Under Alternative 1, there would be no direct removal of special-status plants or their habitats. After remediation of Landfill 10, introduction of dune scrub vegetation along the western edge of the PSHH complex would have a long-term beneficial effect on special-status plants by increasing the amount of dune habitat available for special-status plant population expansion and by helping to connect isolated special-status plant populations at Lobos Creek, Battery Caulfield Road, and northeast of the PSHH complex. This action would support USFWS long-term recovery objectives for the San Francisco lessingia.

Since special-status plants occur in or adjacent to native plant communities near the PSHH complex, they would be vulnerable to indirect impacts, including trampling by students, or by construction workers or equipment during rehabilitation; the release of water or fertilizer from landscaped vegetation; the accidental spread of non-native plants; and increased off-trail use by residents, visitors, and pets. Protective fencing that is located south of the Nike Swale and symbolic fencing around the dune scrub west of Battery Caulfield Road are expected to limit trampling of special-status plants within these areas. The lessingia population west of the Presidio Golf Course is relatively inaccessible from the PSHH complex and is not expected to experience additional trampling. However, increased trampling of special-status plants could occur along the informal trail that runs through disturbed dune vegetation south of the Nike Swale fence and in the restored dune area at Lobos Creek. These areas are included in the Presidio lessingia recovery unit identified in the USFWS Recovery Plan for Coastal Plants of the Northern San Francisco Peninsula (USFWS 2003). Special-status plants that are planted or that may become established in restored dune scrub along the western edge of the project site would also be subject

to irregular disturbance and trampling. Intense or frequent trampling could kill established plants, destabilize the dune substrate, and inhibit seedling establishment and growth.

Alternative 1 would result in more indirect impacts on special-status plants than the Requested No Action Alternative because of the overall increase in human disturbance. Implementation of the mitigation measures identified at the end of this section would substantially reduce potential impacts on special-status plants near the project site.

Native and Special-Status Wildlife – Rehabilitation within the PHSH complex under Alternative 1 could directly and indirectly affect native and special-status wildlife populations on the project site. Ongoing dune restoration in the PHSH district, in coordination with revegetation of dune scrub vegetation at Landfill 10, would have a long-term beneficial effect on native wildlife, especially the California quail, by increasing the amount of dune habitat available for population expansion. Dune restoration activities would provide a wildlife movement corridor connecting the Lobos Creek area with the Nike Swale area and Quail Commons.

Rehabilitation, operation, and human use of the lower plateau associated with 210 dwelling units and 173,000 sf of cultural and educational activities could adversely affect native wildlife by increasing tenant, visitor, vehicular, and pet traffic, along with light, noise, and trash. These activities could disturb sensitive wildlife species that do not acclimate to increased exposure to human traffic, vehicular traffic, and pets. The increase in day use under this alternative would substantially increase traffic entering and leaving the PHSH district, which could increase wildlife mortality caused by collisions with vehicles. Truck traffic and noise from construction activities could also affect sensitive wildlife species during the two- to three-year construction period. Bird species sensitive to human and pet disturbance could abandon native scrub habitats in the lower plateau, especially during the nesting season. Bats roosting inside external window coverings could be harmed if they are not removed prior to construction/destruction activities. Tenants and visitors feeding jays, crows, ravens, cats, and raccoons could create a predator “saturation effect” that would greatly reduce or eliminate populations of some wildlife species. The removal of exotic trees, such as eucalyptus and Monterey pine, would affect tree-dependent species such as pygmy nuthatch, red crossbill (*Loxia curvirostra*), chestnut-backed chickadee, and brown creeper (*Certhia americana*). Replacement of exotic trees with other exotic tree species or native tree species would not benefit native wildlife for many years until restored trees reach sizes that serve as replacement habitat.

Alternative 1 would result in more indirect and direct impacts on special-status wildlife when compared to the Requested No Action Alternative because of the overall increase in human disturbance. Implementation of the mitigation measures identified at the end of this section would substantially reduce potential impacts on special-status and other native wildlife on the project site.

3.12.2.3 Alternative 2: Wings Retained / Trust Revised Alternative

Native Plant Communities – Under Alternative 2, rehabilitation and infill construction within the PHSH complex would create up to 217 dwelling units on the lower plateau and possibly 13 dwelling units within

existing buildings on the upper plateau. Unlike Alternative 1, Alternative 2 would result in a decrease in cultural and educational activities within the PHSH district; however, both alternatives would have a maximum building area of 400,000 sf.

Following remediation of Landfill 10, the existing parking lot west of the PHSH complex would be replaced by a smaller parking area, landscaped open space, and dune scrub vegetation. Introduction of dune scrub vegetation at this location would benefit native plant communities. Rehabilitation and infill construction activities would be restricted to developed sites, and there would be no direct removal of native plant communities or their habitat.

Indirect impacts on native plant communities are expected to be similar in intensity to those identified for Alternative 1 and substantially greater in intensity than those identified for the Requested No Action Alternative. As with Alternative 1, increased occupancy and expanded landscaping associated with residential development could increase the amount of disturbance from tenants, visitors, and pets near the project site as well as recreational pressure on nearby native plant communities. Additional landscaped vegetation could release more water, fertilizer, or non-native plants into native vegetation.

Implementation of the mitigation measures identified at the end of this section would substantially reduce potential impacts on native plant communities near the project site.

Special-Status Plants – Building rehabilitation within the PHSH complex is not expected to directly affect special-status plant populations near the project site. Following remediation of Landfill 10, dune scrub vegetation would be introduced along the western edge of the project site and would benefit special-status plant populations. Indirect impacts on special-status plants are expected to be similar to those identified for Alternative 1 and substantially greater in intensity than those identified for the Requested No Action Alternative. Unlike Alternative 1, Alternative 2 would result in a decrease in cultural and educational activities within the PHSH district; however, both alternatives would have a maximum building area of 400,000 sf. Slightly higher residential occupancy and expanded landscaping under Alternative 2 could put more disturbance pressure on adjacent special-status plant populations by increasing the potential number of off-trail users (including off-leash pets) and adding sources of non-native plants, water, and fertilizer from landscaped vegetation. Because Alternative 1 would have a larger day use population, however, the two alternatives would likely place equal amounts of disturbance pressure on special-status plants.

Implementation of the mitigation measures identified at the end of this section would substantially reduce potential impacts on special-status plants near the project site.

Native and Special-Status Wildlife – Building rehabilitation within the PHSH complex could directly and indirectly affect native and special-status wildlife populations on the project site. Following remediation of Landfill 10, dune scrub vegetation would be introduced along the western edge of the PHSH complex and would benefit native wildlife. Indirect impacts on native and special-status wildlife under Alternative 2 are expected to be similar in intensity to those identified for Alternative 1 because both alternatives would have a maximum build-out of 400,000 sf. However, residential occupancy within

the upper plateau under Alternative 2 could intensify the direct and indirect effects on wildlife resources in this area during dusk and nighttime hours.

Introduction of up to 13 dwelling units at Battery Caulfield could negatively affect native and special-status wildlife, including the breeding population of California quail, through indirect impacts associated with human inhabitation. Increases in human activity after sunset, including noise, traffic, pets, and artificial lighting, may preclude sensitive wildlife from occupying the upper plateau. However, given the amount of housing in the area, and the low number of potential units (which would be confined to existing buildings), there would only be a slight increase in these indirect impacts under Alternative 2 compared to Alternative 1. Because of residential occupancy on the upper plateau, Alternative 2 would have greater intensity of indirect impacts on native wildlife when compared to the Requested No Action Alternative.

Implementation of the mitigation measures identified at the end of this section would substantially reduce potential impacts on special-status and other native wildlife near the project site.

3.12.2.4 Alternative 3: Wings Removed Alternative

Native Plant Communities – Under Alternative 3, rehabilitation and demolition within the PHS complex would create up to 230 new dwelling units on the lower plateau and a total maximum building area of 275,000 sf. Rehabilitation and demolition activities would be restricted to developed sites, and there would be no direct removal of native plant communities or their habitat. After remediation of Landfill 10, dune scrub vegetation would be introduced along the western edge of the PHS complex, benefiting native plant communities.

Indirect impacts associated with this alternative include disturbance pressure on native plant communities by increasing the potential number of off-trail users (including off-leash pets) and adding sources of non-native plants, water, and fertilizer from landscaped vegetation. As with Alternatives 1, 2, and 4, indirect impacts associated with Alternative 3 would be greater in extent and intensity compared to those identified under the Requested No Action Alternative. Both Alternatives 1 and 3 would result in a similar number of dwelling units, but because Alternative 1 would have a maximum building area of 400,000 sf and heavy day use, Alternative 3 would have fewer indirect impacts on native plant communities than Alternative 1. Similarly, because Alternative 2 would have a maximum building area of 400,000 sf and potential for dwelling units on the upper plateau, Alternative 3 would have fewer indirect impacts on native plant communities than Alternative 3.

Implementation of the mitigation measures identified at the end of this section would substantially reduce potential impacts on native plant communities near the project site.

Special-Status Plants – Rehabilitation and demolition within the PHS complex are not expected to directly affect special-status plant populations near the project site. Following remediation of Landfill 10, dune scrub vegetation would be introduced west of the PHS complex and would benefit special-status plant populations. As with Alternatives 1, 2, and 4, indirect impacts associated with Alternative 3 would be greater in extent and intensity than those identified under the Requested No Action Alternative.

Higher tenant occupancy, a maximum building area of 400,000 sf, and heavy day use associated with Alternatives 1 and 2 could put more disturbance pressure on special-status plants, compared to Alternative 3. Disturbance pressure associated with all three alternatives would include trampling by construction workers or equipment during rehabilitation, the release of water or fertilizer from landscaped vegetation, the accidental spread of non-native plants, and increased off-trail use by residents, visitors, and pets. Implementation of the mitigation measures identified at the end of this section would substantially reduce potential impacts on special-status plants near the project site.

Native and Special-Status Wildlife – Rehabilitation and demolition within the PHS complex could directly and indirectly affect special-status and native wildlife populations on the project site. Following remediation of Landfill 10, dune scrub vegetation would be introduced along the western edge of the PHS complex, resulting in a long-term beneficial effect on native wildlife.

As with the Alternatives 1, 2, and 4, indirect impacts associated with Alternative 3 would be greater in extent and intensity than those identified under the Requested No Action Alternative. Disturbance pressure would result from increasing tenant, visitor, and pet traffic, along with light, noise, and trash, on the lower plateau. These activities could disturb sensitive wildlife species that do not acclimate to increased exposure to human traffic and pets. Alternatives 1 and 3 would result in a similar number of dwelling units, which could put approximately equal amounts of disturbance pressure on special-status wildlife. However, because Alternative 3 would result in only 275,000 sf of occupied space and fewer day use activities than Alternative 1, Alternative 3 would have less disturbance pressure on native and special status wildlife, compared to Alternative 1. Alternative 3 would also have fewer direct and indirect effects on wildlife than Alternative 2 because, while there would be the same number of residences overall (230 units), there would be less building area and no new or residential development on the upper plateau. Furthermore, Alternative 3 would have the shortest construction period (17 months) of Alternatives 1 through 4, thereby reducing the amount of time wildlife would be disturbed by truck round trips and potential impacts from construction noise and personnel.

Implementation of the mitigation measures identified at the end of this section would substantially reduce potential impacts on special-status and other native wildlife near the project site.

3.12.2.5 Alternative 4: Battery Caulfield Alternative

Native Plant Communities – Under Alternative 4, rehabilitation of the PHS complex and replacement construction at Battery Caulfield would create up to 192 new dwelling units on the lower plateau and approximately 77 new dwelling units on the upper plateau, for a total of 269 dwelling units within a maximum building area of 362,000 sf. In coordination with remediation of Landfill 10, the existing hospital parking lot would be replaced by landscaped open space, and dune scrub vegetation would be restored along the western edge of the project site. Rehabilitation and replacement construction would be limited to developed areas; therefore, there would be no direct removal of native plant communities or their habitat.

Indirect impacts on native plant communities resulting from Alternative 4 are expected to be similar to those identified under Alternatives 1, 2, and 3. However, development of up to 77 new dwelling units at Battery Caulfield would increase the overall intensity and extent of these indirect impacts when compared to these alternatives. Alternative 2 would also include residential development at Battery Caulfield, but because Alternative 2 would involve development of only 13 dwelling units at this location, all within existing buildings, the indirect impacts on native plant communities on the upper plateau would be less substantial than under Alternative 4. As with Alternatives 1, 2, and 3, indirect impacts associated with Alternative 4 would be greater in extent and intensity than those identified under the Requested No Action Alternative.

Under this alternative, replacement construction at Battery Caulfield would occur directly upslope of sensitive wetland plant communities within the Nike Swale (i.e., riparian seep and riparian scrub vegetation) and northwest of remnant dune scrub and locally rare coast live oak woodland. Construction and ongoing management activities, including replacing unsuitable fill and managing storm water runoff, could indirectly affect adjacent native plant communities by releasing irrigation water and fertilizer, accidentally spreading non-native plants, and altering local surface water and groundwater flows. Unless adequately controlled, these activities could change the hydrology of wetland plant communities in the Nike Swale, reduce native plant diversity and habitat function, and replace patches of early successional vegetation with shrubby vegetation assemblages that are tolerant of higher soil moisture and nutrient levels.

Implementation of the mitigation measures identified at the end of this section would substantially reduce potential impacts on native plant communities near the project site.

Special-Status Plants – Rehabilitation and replacement construction are not expected to directly affect special-status plant populations near the project site. Since rehabilitation of the PHSH complex and replacement construction at Battery Caulfield would be limited to developed areas, there would be no direct removal of special-status plants or their habitat. In coordination with remediation of Landfill 10, dune scrub vegetation would be introduced west of the PHSH complex and would benefit special-status plant populations.

Indirect impacts on special-status plants resulting from Alternative 4 are expected to be greater in extent and intensity than those identified under Alternatives 1 through 3 due to replacement construction of 77 dwelling units at Battery Caulfield. As with Alternatives 1 through 3, indirect impacts associated with Alternative 4 would be greater in extent and intensity than those identified under the Requested No Action Alternative.

Replacement construction at Battery Caulfield would occur upslope of special-status plant populations north of the PHSH complex. Construction and ongoing management activities could indirectly affect special-status plants by discharging water and fertilizer to nearby dune soils and increasing the potential spread of non-native plants from landscaped vegetation. These actions could increase the cover and extent of shrubby or weedy vegetation and reduce the amount of available open, sandy patches required by some special-status plants for germination and growth.

Implementation of the mitigation measures identified at the end of this section would substantially reduce potential impacts on special-status plants near the project site.

Native and Special-Status Wildlife – Rehabilitation and replacement construction under Alternative 4 could directly and indirectly affect special-status and native wildlife populations on the project site. Direct and indirect impacts on native wildlife under Alternative 4 are expected to be greater in extent and intensity than those identified under Alternatives 1 through 3. New development of up to 77 dwelling units at Battery Caulfield would incrementally contribute to the overall extent and intensity of adverse impacts associated with human disturbance, especially to the breeding population of California quail and wildlife species occupying the Nike Swale. Alternative 2 also includes residential development at Battery Caulfield, but because Alternative 2 only involves development within existing buildings, native and special-status wildlife on the upper plateau would have less disturbance pressure under Alternative 2 compared to Alternative 4. As with Alternatives 1 through 3, impacts associated with Alternative 4 would be greater in extent and intensity than those identified under the Requested No Action Alternative.

Residential development of Battery Caulfield would introduce human disturbance to an area immediately adjacent to a known California quail nesting location. The one-way roads and new buildings associated with this development could act as partial or complete barriers to quail movement between Quail Commons and the Nike Swale. New development on the upper plateau could also reduce the effectiveness of the restored dune scrub as a wildlife movement corridor by greatly narrowing the width of the corridor. The result would be a narrow movement corridor that could function as a sink if predators inhabit the area. An increase in quail predation at this location could eventually lead to the loss of this species from the Presidio.

Implementation of the mitigation measures identified at the end of this section would substantially reduce potential impacts on special-status and other native wildlife near the project site.

3.12.2.6 Park Presidio Boulevard Access Variant

Construction of the Park Presidio Boulevard intersection would involve some grading and vegetation removal in the southeast corner of the PSHS district. Vegetation removal could result in an impact on nesting birds; however, implementation of PTMP EIS Mitigation Measures NR-4 and NR-9 (described below) would ensure that no breeding birds would be disturbed. Increases in vehicular traffic at this location could also result in long-term disturbance to native wildlife from noise and light; because the southeast corner of the PSHS district currently contains vehicular traffic (at Park Boulevard and 14th Avenue), however, it is anticipated that wildlife would become habituated to the subtle changes in the amount of noise, light, and traffic over time.

3.12.2.7 Cumulative Effects

The project site is within the southwestern region of the Presidio, an area of the park that is planned to become less inhabited over time with removal of Wherry Housing, expansion of open space, and enhancement of natural areas. These efforts are intended to result in expanded native plant communities

and protection and enlargement of existing populations of federally listed plants, and would create a corridor for wildlife movement.

Planned actions would cumulatively contribute to an increase in native species richness, the re-introduction and expansion of sensitive species populations, the perpetuation of individual species (by providing food and shelter for residents and migrants), and an increase in the extent of native plant communities and wetland resources. These actions would also cumulatively enhance existing native habitats by filling in gaps between habitats and creating larger contiguous areas of native plant habitat, allowing wildlife to move freely between areas.

Actions under the PHSB alternatives and each alternative's facilitation or support for other planned projects could also contribute positively to the cumulative long-term enhancement and protection of the Presidio's biological resources.

New construction and land use activities under the project alternatives could have site-specific impacts that would detract from ongoing restoration projects. To partially mitigate the contribution of project-related new construction to cumulative impacts in the area, the Presidio has implemented a "no net construction" prerequisite for new construction that limits any new construction to 130,000 sf and requires the removal of building square footage at least equal to new construction within the district.

Unless mitigated, implementation of the project could potentially contribute to the cumulative degradation of ecologically significant native plant communities, special-status plants, and native wildlife from increased visitor, tenant, and pet disturbance, and invasive non-native plants. In addition, new construction and land use activities at Battery Caulfield could contribute to cumulative changes in local hydrology. Project impacts that could contribute to cumulative impacts have been identified in this document and would be mitigated through measures provided below. Future uses within Battery Caulfield would also be subject to the mitigation measures presented in this document. Long-term monitoring would ensure protection of sensitive plant and wildlife resources. In addition, the Trust would take reasonable actions to attain compliance with the objectives of the USFWS Final Recovery Plan for the San Francisco lessingia subject to budgetary and other constraints affecting the Trust. These mitigation measures would ensure that the project's contributions to cumulative impacts on biological resources are minimized or avoided. This project could make a minor contribution to cumulative impacts on special-status plants, native plant communities, and native wildlife, as identified in the PTMP EIS. However, mitigation that would minimize or avoid adverse impacts has been adopted as part of the PTMP EIS.

3.12.3 MITIGATION MEASURES

The following mitigation measures are derived from the PTMP EIS and are considered conditions of approval due to their adoption at the end of the PTMP planning and environmental review process. These mitigation measures have been modified (where necessary) to incorporate and respond to the PHSB

project, and will collectively address all adverse effects related to biology, except for potential impacts on the California quail, which are addressed separately below.

NR-1 *Native Plant Communities* – To reduce the possibility of colonization by non-native plant species, the Trust will implement the following mitigation measures:

- Immediately revegetate with native species areas of native vegetation disturbed by construction, infrastructure repair, and increased land use activities.
- Prepare a site-specific revegetation plan for the project site.
- Identify revegetation needs early to allow time to establish seedlings from on-site plants and thus avoid contamination of the gene pool.
- Wherever possible, use planting materials (seeds and cuttings) from the local Presidio gene pool.
- Consult with the Soil Conservation Service, California Native Plant Society, NPS, Golden Gate National Parks Conservancy, and other technical experts on native plant propagation techniques.
- Protect all revegetation efforts through buffers and/or barriers during establishment, and maintain and monitor for at least three years.

NR-3/NR-4 *Threatened, Endangered, Rare, and Sensitive Species* – To ensure long-term protection of special-status species and to mitigate any project-related indirect and direct impacts on these species, an inventory and monitoring program for rare and endangered plant and animal species will continue in the PHSH district. All known populations of special-status species and local species of concern will be protected and, if future populations are uncovered, management objectives will be developed and programs implemented for the particular species. For special-status plants, the Trust will implement the following mitigation measures:

- Within the project site boundary, prohibit the use of invasive non-native species with the potential to compete with special-status plants in landscaping. Prohibited species will include plants on the California Exotic Pest Plants Council List A and B.
- Erect a temporary construction barrier around unfenced special-status plant habitat on the upper plateau and train construction workers in identification and ecological needs of the plants.
- Manage the south-facing dune slope behind the PHSH complex as a buffer to adjacent special-status plant populations on the upper plateau. Management activities may include, but are not limited to, controlling invasive plants and planting low-stature native vegetation buffers (less than six meters high) on the upper slope to discourage access by humans and pets into special-status plant habitats and minimize potential conflicts with building operations.

For special-status wildlife, the Trust will implement the following mitigation measures:

- Conduct surveys for special-status wildlife species including San Francisco fork-tail, special-status birds, raptors, and bats prior to construction activities. If a special-status species is found in the

development vicinity, adopt an appropriate buffer zone and site- and species-specific mitigation plan to avoid or minimize impacts. If an inactive or active raptor nest is found within or adjacent to the PHSB district, initiate the most potentially disruptive construction activities prior to or after the raptor nesting season (January 1 through August 15). An inactive raptor nest would likely be reused and active during the nesting season and should be treated accordingly.

NR-5 *Wildlife and Native Plant Communities* – To protect wildlife and native plant communities during demolition and construction activities, the Trust will implement the following construction-related mitigation measures:

- To the greatest extent feasible, schedule heavy equipment use to avoid areas where soils are wet and prone to compaction.
- Do not side-cast or spread excavated materials into native plant communities or special-status species habitat.
- Apply appropriate erosion and siltation controls during construction and stabilize exposed soil or ecologically compatible fill after construction.
- If fill is necessary, use only fill that is certified as weed-free, is compatible with local hydrologic and ecological conditions, and is appropriate for the enhancement of special-status species restoration activities.
- Immediately revegetate native plant areas affected by construction with native plant species appropriate to the area and grown from local seed stock and temporarily cover the soil and/or revegetation areas.
- Ensure that human food is never left exposed to wildlife on the construction site.

To protect wildlife and native plant communities from project-related impacts, the Trust will require that new development and planned intensive human activities on the upper and lower plateaus be located at least 100 feet from the edge of existing native plant communities and/or assemblages.

To protect wildlife and native plant communities after redevelopment activities are completed, the Trust will implement the following ongoing mitigation measures:

- Prohibit the use of irrigation, fertilizers, and herbicides in areas adjacent to or up-gradient from the Nike Swale and other sensitive biologic resources on the upper plateau.
- In other landscaped areas (i.e., areas within the project footprint that are not adjacent to or up-gradient from sensitive biological resources), manage the use of supplemental irrigation, fertilizers, and herbicides to avoid increasing the water and nutrient supply to dune scrub and other native plant communities.
- Prepare interpretive materials and install signage emphasizing resource and conservation values in areas adjacent to natural habitat areas and sensitive native plant communities, and provide other

educational devices to encourage voluntary compliance with protection measures and discourage pedestrian traffic through sensitive habitats.

- Enforce existing leash restrictions to prevent pet access in adjacent native plant communities, special-status species habitat, and listed species recovery areas
- Regularly inspect adjacent native plant communities, special-status species habitat, and listed species recovery areas for any impacts or damage to biological resources and implement remedial measures (e.g., install and/or modify protective fencing or other barriers) if impacts occur.
- Coordinate all future trail planning and recreation activities in areas adjacent to native plant communities or special-status species habitat with an interdisciplinary team, including a qualified biologist or natural resource specialist.

NR-6 *Best Management Practices* – The Trust will establish and implement both Presidio-wide and site-specific best management practices for construction/demolition activities, development of new and/or expanded tenant and visitor activities, and special events adjacent to natural habitats.

NR-7 *Artificial Light* – The Trust will require that the intrusion of artificial light into the night scene of ecosystems is minimized, and the level of human-caused sound during construction-related activities, project design, and future tenant activities is limited. Artificial lighting will be used only in areas where security, basic human safety, and specific cultural resource requirements must be met. Minimal-impact lighting techniques will be used, and artificial lighting will be shielded to prevent the disruption of the night sky, physiological processes of living organisms, and similar natural processes. No gain in light levels in natural habitats within the Nike Swale area will be sought to the greatest extent feasible. Best management practices (e.g., use of lighting shields on exterior fixtures, provision of interior shades or blinds in all buildings, use of non-reflective glass, prohibition on exterior loud speakers or audible warnings at garages and loading areas, and use of double sets of doors at primary building entrances) will be used to minimize interior and exterior fugitive light and sound.

NR-9 *Wildlife and Wildlife Habitat* – To protect nesting birds and bat species, the Trust will implement the following mitigation measures:

- Establish a construction schedule that minimizes effects of lighting and noise on all wildlife, particularly nesting birds, by limiting disturbance activities during the breeding season.
- Prior to any demolition activities at the PSHH complex, retain a qualified bat biologist to check all window coverings for bats. The qualified biologist will then remove any bats present without harm.
- To protect active nests of birds covered under the Migratory Bird Treaty Act, limit earth moving, landscaping, vegetation removal, and other heavy equipment activities to the non-breeding season (August 15 through January) and follow park guidelines for the removal of vegetation.
- Retain wax myrtle and other native shrubs adjacent to the maintenance yard, which provide cover and foraging habitat for California quail and other birds.

- Prohibit the ownership and/or maintenance of pets on the upper plateau. Implement Trust pet agreements and pet policies (as the Trust may amend from time to time at its discretion) on the lower plateau as addendums to residential leases, including seeking appropriate remedies for violations such as removing the pet from the Presidio or terminating the lease.
- Implement a control program for non-native species such as Norway rats, red foxes, and European starlings.

NR-11 *Public Health Services Hospital* – The Trust will ensure that site-specific measures taken during design of the Battery Caulfield site would minimize changes to the local hydrology and the Nike Swale so that hydrophytic vegetation and San Francisco forktail habitat are not adversely affected.

NR-12 *Cumulative Activities* – The Trust will develop measures to ensure that cumulative disturbance to natural habitat areas within the Presidio does not exceed 20 acres within any given year. No more than five acres of that disturbance should be concentrated within one wildlife corridor, sensitive habitat, or plant community without analysis from a professional ecologist. This would not apply to disturbances created by natural storm or environmental events. If such events occur, disturbed areas would be restored or treated consistent with natural resources objectives.

Implementation of the following new mitigation measure will address potentially adverse impacts associated with the California quail population and will apply to Alternative 4 only, due to the alternative's proposed new construction at Battery Caulfield:

NR-X *Protection of California Quail* – To ensure that the breeding population of California quail occupying Quail Commons north of Battery Caulfield is adequately protected from potential project impacts associated with Alternative 4, the Trust will implement the following measures:

- Place speed bumps on the new road at Battery Caulfield in order to keep vehicle speeds at or below 10 miles per hour.
- Pending approval of any required depredation permit from the USFWS, develop and implement a corvid (jays, crows, and ravens) control plan to reduce the impacts of these predators on young quail.
- Provide a 100-foot (minimum) wildlife movement corridor from Quail Commons to Nike Swale.
- During and after construction, provide and maintain brush piles along the western and eastern edges of Battery Caulfield that can be used for cover from predators. If exotic trees (eucalyptus and Monterey pine) are removed from these corridors, replace these denuded areas with fast-growing native plants such as bush lupine (*Lupinus arboreus*) and native tree species such as Toyon (*Heteromeles arbutifolia*).
- During and after construction, maintain integrity of quail breeding sites (Quail Commons) from human and pet disturbance by implementing Mitigation Measures NR-5 and NR-6, by building and maintaining a fence that is an effective barrier to people between Quail Commons and the upper plateau, and by implementing fire control programs.

4 Consultation and References

The PTMP, the comprehensive land use plan for Area B of the Presidio upon which the PHSH project proposal is based, was itself subject to an extensive public process.³⁴ In responding to public comments on the Draft PTMP and EIS, the Trust made several refinements to the PTMP and EIS, including addressing issues specific to the PHSH district. The responses to public comments resulted in adding greater specificity to the PHSH district, stating a preference for residential uses within the main hospital building, and committing to commemorate the former Marine Hospital Cemetery. The PTMP also committed to continued public process as the plan was implemented. This Final SEIS affords the public that opportunity for the PHSH project proposal.³⁵

The PHSH project now under review in this Final SEIS is the first major historic building rehabilitation and potential new construction project within the NHLD since the Trust's adoption of the PTMP. The Trust initially announced the PHSH project in a feature article in the April/May 2003 Presidio Post, the Trust's bi-monthly newsletter with over 17,000 readers interested in park activities. The Presidio Post article made known the Trust's proposal to revitalize and reuse the PHSH district's buildings, and to solicit offers from qualified organizations interested in redeveloping the project site and rehabilitating some or all of its historic structures.

Since the first announcement of the project in April/May 2003, the PHSH project has been the subject of substantial public input, including first a detailed EA and now this SEIS. In addition, although not required by the NEPA, the EA was the subject of public scoping, public comment, and a public hearing, such that the entire review process will include two full sets of opportunities for public participation. A detailed summary of public input during the concurrent leasing and environmental review process for the PHSH project is provided below, along with a summary of agency consultation.

4.1 CONCURRENT LEASING AND ENVIRONMENTAL REVIEW PROCESS

The Trust is engaged in a concurrent leasing and environmental review process aimed at rehabilitating and leasing buildings within the PHSH district in a manner that is consistent with the management direction and level of intensity presented in the PTMP and analyzed in the PTMP EIS.

In 1999, prior to the PTMP planning process, the Trust had issued a Request for Qualifications (RFQ) for the PHSH and received 14 proposals. At that time, the Trust elected not to proceed with the project. In the course of developing the PTMP, the Trust set clearer land use parameters and management options for the PHSH district that were also responsive to and consistent with the comments received from the adjoining neighborhoods. The PTMP identified rehabilitation and leasing of the PHSH buildings as an

³⁴ For a chronological discussion of the public involvement program for the PTMP and EIS, refer to the Record of Decision for the PTMP (Presidio Trust 2002).

³⁵ For a detailed discussion of the public comments, responses, and changes made to the PHSH district during the PTMP planning and environmental review process, refer directly to Responses to Comments PG-4 through PG-9 in the PTMP Final EIS (Volume II), pages 4-87 to 4-90.

important “next step” because of the serious physical deterioration of the historic buildings and the Plan’s policy commitment to pursue conversion of non-residential buildings to residential use.

4.1.1 Start of Leasing Process / 2003 PHSR RFQ

In April 2003, the Trust began seeking development teams qualified to undertake the rehabilitation and reuse of the buildings within the PHSR district. The Trust distributed the RFQ and accompanying draft Planning and Design Guidelines (see PHSR EA Appendix A) to more than 5,000 individuals and/or organizations (Presidio Trust 2003a and 2003b). Approximately 100 people attended the Trust’s public pre-submittal meeting on May 6, 2003 for a project briefing and tour of the site. The Trust also engaged in more than 30 public meetings and briefings with neighborhood groups and other interested parties, as described further below.

On June 23, 2003, the Trust received nine responses to the PHSR RFQ. Evaluation of these submittals focused on team qualifications and on narrowing the field from which to request detailed proposals. In evaluating qualifications, the Trust considered broad criteria, including experience with similar projects and historic building rehabilitation, as well as the use of historic tax credits, financial capability, proposed public outreach efforts, compatibility of the project concepts with the Presidio’s NHLD status, and responsiveness of the initial project concept to the Trust’s goals and objectives for the project.

Following an evaluation of the responses by Trust staff, the Trust Board of Directors invited Forest City Development, the John Stewart Company and the Related Companies of California, and Avalon Bay Communities, Inc. to submit detailed proposals by October 27, 2003. Avalon Bay subsequently chose to withdraw from the process.

4.1.2 Start of NEPA Process / Scoping the EA

On August 27, 2003, the Trust issued a Request for Proposals (RFP) to the three qualifying teams and also began its environmental review process pursuant to the NEPA (Presidio Trust 2003c). Using the PHSR district planning framework developed in the PTMP, the Trust defined a range of possible alternatives for the project. The range of alternatives was informed by early public input during the RFQ process and by the conceptual proposals offered by RFQ respondents.

The Trust encouraged the participation of interested individuals, organizations, and agencies as part of the scoping process for the PHSR EA. An announcement in the August/September 2003 Presidio Post urged members of the public to join the project mailing list to receive PHSR announcements and the EA.

Notice of the project and EA was also published in the Federal Register on September 9, 2003 (68 FR 53205). Scoping for the project began on August 27, 2003, at which time the Trust widely distributed for public review and comment its notice to prepare an EA and an information packet describing the project, issues, potential impacts, and potential alternatives to be addressed in the EA.

As part of the scoping process, the Trust held two public Trust Board of Directors meetings. At the first meeting on October 29, 2003, the Board accepted oral scoping comments, announced a second public meeting, and extended the public comment period (68 FR 64151). Of the approximately 166 individuals attending the first public meeting, 27 spoke. The meeting was summarized in an article that appeared in the November/December 2003 Presidio Post. At the Board's second public meeting held on December 10, 2003, approximately 114 individuals attended and 35 speakers directly addressed the Board with comments on the PSHH project.

In addition, during the scoping period, the Trust presented the project at a number of other meetings, site visits, building tours, and activities with government agencies, City supervisors of districts adjacent to the Presidio, neighborhood associations, natural resource conservation organizations, historic preservation groups, city planning organizations, neighbors, and others (see Section 4.3, List of Persons and Agencies Consulted, for a partial listing). At these forums, the Trust listened to public concerns about the project and answered questions where possible. The Trust also provided timely information updates and notices concerning the project through postings on its website at www.presidio.gov.

4.1.3 Continuation of Leasing Process / Receipt of Proposals

Two teams elected to present proposals. The Forest City and John Stewart/Related Companies teams submitted their proposals on October 27, 2003, and presented them at a public Trust Board of Directors meeting on October 29. The teams were directed to submit proposals consistent with the range of alternatives described in the scoping materials, and each did so.

The Forest City team submitted two proposals. The first would remove the non-historic wings of the PSHH, rehabilitate the historic portion of the building and other historic buildings for residential use, and construct new dwelling units in the northern portion of the PSHH district at Battery Caulfield. The second proposal would rehabilitate the PSHH, including its non-historic wings, for residential use without any new construction at Battery Caulfield. Forest City has identified the second proposal as its preference. The John Stewart/Related Companies proposal was similar to Forest City's preferred option, and would rehabilitate the PSHH while retaining the non-historic wings. The John Stewart/Related Companies proposal stated that the team considered a project that removed the non-historic wings without replacing the lost square footage, and determined that it would not be financially feasible for them nor would it generate rent for the Presidio.³⁶

4.1.4 Revision of EA Planning Alternatives Based on Leasing Proposals and Scoping Comments

The extended scoping period, which originally would have expired on November 26, closed on December 10, 2003. The Trust Board offered almost four months (105 days) of public scoping to provide greater opportunities for public and agency participation in the project planning process. By the end of the

³⁶ In a later communication dated January 9, 2004, the John Stewart/Related Companies team revised this statement to indicate their belief that the smaller alternative would be financially feasible if Building 1801 were reused as leasehold condominiums.

scoping period or shortly thereafter, the Trust had received about 250 written and oral comments, including a total of about 195 written comment letters and two petitions with 69 and 18 signatures, respectively.³⁷

After carefully considering the public's comments and the proposals submitted, the Trust revised the alternatives included in the August 27, 2003 scoping materials to those that were being studied in the EA. Most notably, in response to public scoping comments and the developer proposals, the Trust reduced the proposed unit count – or size – of EA Alternatives 2 and 4 by 10 to 20 percent. The comments also led to other changes, including definition of the Park Presidio Boulevard Access Variant, identification of a preferred alternative that did not include new construction at Battery Caulfield, and numerous textual discussions and analyses in Sections 1, 2, and 3 of the document.

4.1.5 Developer Selection and Distribution and Comment on the EA

The Trust made the EA available for public review on March 1, 2004 (69 FR 9651) and furnished the document to interested persons, organizations, and agencies. The Trust also widely circulated a summary of the EA in a project update (Presidio Trust 2004c). The public was invited to provide oral comment on the EA at a public Trust Board meeting on April 14, 2004, at which 132 individuals attended and 44 spoke. At a subsequent meeting, the Board selected Forest City Development Partners as the developer team with whom to enter exclusive negotiations for the project.³⁸

By the close of the extended public review period on April 30, 2004, the Trust had received written and oral comments from 2 public agencies, 2 elected officials, 11 organizations, and 134 individuals. Of the individuals who provided written comments, 82 (61 percent) included addresses with ZIP codes bordering the Presidio and could be considered “neighbors.”

Based on the impact analysis in the EA and a review of public comments received on the document, the Trust determined that a full EIS process would best achieve the NEPA's goals because of the potential significance of traffic impacts identified. The Trust used many of the substantive comments received on the EA to help scope the relevant issues that were addressed in this Draft SEIS and identify any additional environmental analyses or information that would be appropriate. A summary of the comments received is provided in Appendix A of the Draft SEIS, along with responses to issues raised and an explanation of resulting differences between the analyses in the EA and the Draft SEIS.

4.1.6 Scoping for Draft SEIS

On May 25, 2004, the Trust published a notice of intent in the Federal Register that it was commencing preparation of the Draft SEIS for the PHSB project (69 FR 29773). The Trust also made its decision to

³⁷ These letters are available for public review at the Presidio Trust Library, 34 Graham Street.

³⁸ The Board's selection of a developer did not indicate a commitment to approve or execute a project identical to the developer's specific physical proposal. Negotiations are expected to result in a project that falls within the range represented by the alternatives in Section 2 of this Final SEIS, and will not be concluded until the environmental review process is complete.

prepare an EIS known in a special June 2004 issue of the Presidio Post, in local newspapers, and through the State Clearinghouse (SCH# 2003082132) and direct mailings. These notices also described the Trust's scoping process for the project, including accepting oral comments from the public on the issues and choice of alternatives to be considered in the Draft SEIS at a Trust public meeting, which was held on June 29, 2004 and attended by 64 individuals, of whom 17 provided oral comments. Shortly before and during the scoping period, which ended on July 7, 2004, Trust staff also attended several neighborhood organizations' meetings to answer questions about the project and the SEIS.

By the close of the scoping period or shortly thereafter, the Trust received written comments from 1 agency, 7 organizations, and 106 individuals, including two form letters that were submitted electronically by 36 and 38 individuals, respectively. The Trust considered the key issues raised during the scoping period, together with the comments received on the EA, to be the principal areas for study and analysis in the Draft SEIS. In response to these comments, the Trust expanded on the analysis presented in the EA by including the Requested No Action Alternative, by including more comparison of all alternatives, by including substantial additional information and analysis related to transportation issues, and by making many other changes to the text and analysis that had been presented in the EA. A summary of the comments received during scoping is included in Appendix A of the Draft SEIS, together with responses that indicate where the comments have been addressed in the Draft SEIS.

4.1.7 Comment on the Draft SEIS

The Trust released the Draft SEIS for public review and comment on August 17, 2004. Notice of the availability of the Draft EIS was provided by the U.S. Environmental Protection Agency (EPA) on August 27, 2004 (69 FR 52668). On that date, the Trust widely circulated a summary of the Draft SEIS in a project update (Presidio Trust 2004d). The update described the NEPA process, identified the alternatives analyzed in the Draft SEIS, presented its key findings, and explained how to obtain and comment on the Draft SEIS. An announcement was also provided in the September/October 2004 Presidio Post and on the Trust's website (www.presidio.gov).

The EPA's notice of availability showed the public comment period on the Draft SEIS ending October 12, 2004. In response to several requests from commenting organizations and other parties, the Trust elected to extend this period by 30 days to November 12, 2004 (69 FR 60197). The Trust provided the longer review period to further enhance the opportunities for public and agency participation in the NEPA process. More than 150 Draft SEISs were distributed to interested agencies, organizations and individuals. The Draft SEIS was also made available for review at the Presidio Trust Library, at local libraries, and on the Trust's website (www.presidio.gov).

The public was invited to provide oral comment on the Draft SEIS at a Trust Board of Directors meeting on November 4, 2004, at which 125 individuals attended and 38 spoke. By the close of the extended public comment period, the Trust had received written and oral comments from 2 public agencies, 3 elected officials, 11 organizations, and 134 individuals, including two form letters that were submitted electronically by 30 and 27 individuals, respectively (see Table 28). In general, of the approximately 230

comments received on the proposed project and Draft EIS, none expressed general support for the Trust’s identified Preferred Alternative (Alternative 2). The vast majority of comments explicitly favored a significantly smaller development alternative (Alternative 3) that would scale down the size of the existing hospital by removing the wings and include no more than 230 housing units limited to the lower plateau of the PHS district. No comments supported building in areas on the upper plateau of the district, including Battery Caulfield. Many of the comments raised concerns about the potential traffic and safety hazards that would be caused by the development. The Trust’s responses to these and other substantive comments are provided in the separate Responses to Comments volume of this Final SEIS.

Table 28. Public Agencies, Organizations, and Individuals Commenting on the PHS Draft SEIS

Federal Agencies	United States Department of the Interior, National Park Service, Golden Gate National Recreation Area (GGNRA) United States Department of the Interior, Office of the Secretary, Office of Environmental Policy and Compliance* United States Department of the Interior, Fish and Wildlife Service, Sacramento Fish and Wildlife Office United States Environmental Protection Agency, Region IX	
State Agencies	Business, Transportation and Housing Agency, Department of Transportation (Caltrans)	
Regional, County, and Municipal Agencies	Golden Gate Bridge Highway & Transportation District City and County of San Francisco	
Elected Officials	Gavin Newsom, Mayor; Michela Alioto-Pier, Member, Board of Supervisors, District 2; and Jake McGoldrick, Member, Board of Supervisors District 1, City and County of San Francisco; Rob Black, Legislative Aide to Michela Alioto-Pier**	
Neighborhood Organizations	Lake Street Residents Association Neighborhood Associations for Presidio Planning Pacific Heights Residents Association Planning Association for the Richmond Richmond Presidio Neighbors West Presidio Neighborhood Association	
Natural Resource Conservation Organizations	Golden Gate Audubon Society Donald S. Green, on behalf of the Sierra Club, Presidio Committee	
Civic Organizations	San Francisco Bicycle Coalition San Francisco Planning and Urban Research Association	
Individuals		
Ed Alazraqui	V. R. Cole	Stephen Dreyfuss**
Phyllis Ayer	Josiah Clark**	Terry Fairman
David Begler	Karen Cleek**	David Fleishman
Kathleen Bole	Jean and Erich Davids (3)	Rodney A. Fong
Michael B. Brown	Leanna M. Dawdyiak & Reno L. Rapagnani	Muriel T. French
Kevin Castner	Raj & Helen Desai	Joan Girardot**
Peter Chernik**	J. Doremland	Joanne Gomez
Nicky Chiuchiarelli		Mary Gould

Jon C. Gray
M. Hamrick
Winchell T. Hayward
John Holding, on behalf of Dune
Ecological Restoration
Team
Diane Hermann**
Mark Higbie**
Ken High, Jr. & Gail High
Bob House
Kevin Howard**
Eloise Jonas
Jeff Judd**
Sharon Kato
Ansel D. Kinney
Rich Koch
Diane Lambert-Nash
Craig Law
Jill Lawrence

Steve Ledoux**
Meagan Levitan
Rommie Lucia**
Kim Maxwell
Thomas V. Meyer
Charles Minster**
Rudeen Monte**
Margaret Moore
Richard Morales
Mikiye Nakanishi
Ward Naughton
William Newmeyer
Margot Parke**
Sue Peipher
Sal Portaro
Daniel Richman
David Santamaria, Founder and
Advisor of Urban Planners
of America

Woody Skal**
Dale Smith
Mary Beth Starzel
Laurie Steele
Eric N. Swagel, MD
Sharon Tsiu
Suzanne Tucker (2)
Mike Van Dyke
Jedediah Wakefield
Ann H. Weinstock
Mark Weinstock
Harold Weston
Jay P. Williams & Holly C.
Holter, M.D.
Glenda Wong**
Edith Yamanoha
Margaret Kettunen Zegart (3)
August Zigone**

Form Letters Golden Gate Audubon Armchair Activist Letter of the Month – Presidio Public Health Service Hospital Redevelopment Threatens Quail Restoration (Submitted by 30 Individuals)

Support the Position of Richmond Presidio Neighbors – Alternative 3 is the Only Alternative Compatible with the Neighborhood (Submitted by 27 Individuals)

Source: Presidio Trust 2006.

Notes:

*Comments submitted by the Office of Environmental Policy and Compliance are identical to those contained in the letter submitted by the National Park Service. Both letters are available for review at the Presidio Trust Library.

**Oral comments only.

4.2 INTERAGENCY COORDINATION

As directed by the Council on Environmental Quality (CEQ) NEPA Regulations (Section 1502.25(a)), the Trust coordinated preparation of both the PHS EA and SEIS to the fullest extent possible with other applicable environmental reviews or consultation. To integrate NEPA requirements with other planning and environmental review procedures required by law (or Trust practice), the Trust actively solicited the participation of various agencies, including the National Park Service, the California Department of Transportation, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the City and County of San Francisco. Consultations with these agencies are discussed below. Copies of all relevant correspondence are available for review as part of the formal public record.

4.2.1 National Park Service (NPS)

The Presidio Trust Act, as amended, describes the statutory framework for the relationship between the Trust and the NPS. The NPS manages Area A of the Presidio, including Lobos Creek immediately west

of the PHS district. The NPS is also a signatory party to the Programmatic Agreement (PA) for Area B of the Presidio (see Section 4.2.3 below). To facilitate early coordination with the NPS in the Trust's NEPA process, Trust staff presented the PHS project at the NPS bi-weekly Project Review Committee Meeting on September 24, 2003. At the meeting, NPS staff had the opportunity to raise project issues and environmental concerns early in the process. The Trust also toured the project site with interested NPS staff on September 8, 2003 and again on November 7, 2003. Trust and NPS staff with expertise in the biological sciences organized a roundtable discussion with interested groups and outside experts on November 25, 2003 to exchange technical information and opinions and to discuss possible ways to minimize potential impacts of the alternatives on natural resources.

The NPS submitted scoping comments during EA preparation. In general, the NPS expressed support for the project as it "provides the opportunity to arrest the physical deterioration of the buildings, improve the appearance and vitality of the PHS district and contribute toward both the protection of the [NHL] and the important natural values at the site while contributing to the generation of revenues for the long-term operation of the Presidio as required by the Trust Act." The NPS requested that the EA evaluate project impacts on the surrounding neighborhoods and important wildlife communities and natural habitats within the PHS district. The Trust met with the NPS on January 20, 2004 to review their comments and describe how their comments were given consideration in the EA.

Following the Trust's release of the EA, the NPS commented that, "[i]n general, GGNRA's scoping comments and comments from scoping workshops with Natural Resources staff and consultants were incorporated into the EA." The NPS also expressed its "strong preference" for Alternative 3 and provided reasons supporting its position. The NPS resubmitted the same comments during scoping for the Draft SEIS. The NPS' comment letter on the Draft SEIS again recommended that the Trust select Alternative 3 as its Preferred Alternative.

4.2.2 California Department of Transportation (Caltrans)

In a letter dated September 16, 2003, Caltrans responded to the Trust's request for scoping comments and indicated their desire for a Traffic Impact Study (TIS) with specific components for proposed new access directly to Park Presidio Boulevard, a state highway facility. All activities that involve a need to perform work or implement traffic control measures within a state right-of-way require approval from Caltrans. Construction of the Park Presidio Boulevard Access Variant would qualify as an activity requiring Caltrans approval. Section 3.2 of the Draft SEIS included information regarding existing traffic conditions in the site vicinity, as well as a thorough analysis of potential transportation impacts of future project alternatives both with and without the Park Presidio Boulevard Access Variant.

Prior to publication of the Draft SEIS, representatives of the Trust and the San Francisco Department of Parking and Traffic (DPT) met with Caltrans staff in January 2004 to discuss the Park Presidio Boulevard Access Variant. Caltrans staff stated that they saw "no fatal flaws" with the proposal, and described the agency's process for considering improvements of this nature. In a letter dated March 15, 2004, Caltrans suggested that the Trust pursue the proposed Park Presidio Access intersection by preparing a combined

Project Study Report/Project Report (PSR/PR), which will include information typically within a TIS (information that is also available in Section 3 of this SEIS). On June 3, 2004, representatives of the Trust met with Caltrans staff to discuss the proposed parameters for preparation of the PSR/PR, including alternative design parameters.

After publication of the Draft SEIS, the Trust began drafting Fact Sheets for Mandatory and Advisory Design Exceptions and drafting a TIS for the Park Presidio Boulevard Access Variant. These documents are key elements of the PSR/PR. The Fact Sheets outline the various exceptions that would be needed for Caltrans geometric design standards (as provided in the Highway Design Manual) to build the project, with justification for these exceptions. The TIS includes a summary of traffic operational conditions, traffic signal warrant analysis, and accident analysis. The traffic signal warrant analysis compares the forecasted traffic volumes through the intersection to the minimum volumes specified in the warrants described in the Manual on Uniform Traffic Control Devices (MUTCD) and the California Supplement to the MUTCD. The Trust submitted a draft version of these Fact Sheets and the requested TIS to Caltrans for review in November 2004. Upon review of the draft documents, Caltrans requested a more detailed description of the justification for the design exceptions and more information related to the traffic analysis, including an updated signal warrant analysis. The Trust began work on responses to Caltrans comments in late 2004 and early 2005. However, due to the subsequent revision of Alternative 2 in the Final SEIS to provide fewer dwelling units, the traffic expected to be generated by Alternative 2 would no longer meet the Caltrans signal warrants for planned intersections (see Transportation Technical Memorandum No. 7 in Appendix B). The Trust has provided the updated traffic signal warrants analysis provided in Appendix B to Caltrans.

4.2.3 Advisory Council on Historic Preservation (ACHP) / California State Historic Preservation Officer (SHPO)

Section 106 of the National Historic Preservation Act (NHPA) of 1966 requires the Trust to take into account the effect of its undertakings on historic and cultural resources, including the NHLD. The Trust has entered into a Programmatic Agreement (PA) with the ACHP, the SHPO, and the NPS that applies to all undertakings under its jurisdiction. The National Trust for Historic Preservation and the Fort Point and Presidio Historical Association are concurring parties to the PA. The PA provides a framework for reviewing the project effects internally and for consulting with other parties under certain circumstances. Consistent with the PA and ACHP regulations that suggest early integration of Section 106 compliance with the NEPA and other agency processes, in April 2003 the Trust toured the PHSH with ACHP and SHPO representatives and provided copies of the draft Planning and Design Guidelines and other early project information. In September 2003, the Trust requested preliminary comment and early input from all PA signatory and concurring parties regarding potential alternatives to be evaluated in the EA, the draft Planning and Design Guidelines, or other matters germane to the historic compliance of the undertaking. By the end of the scoping period, only the Fort Point and Presidio Historical Association commented, stating four concerns that they believed should be addressed in the planning effort. In April 2004, the Trust sought and received concurrence from SHPO on the establishment of an Area of Potential Effect (APE) for the project. Concurrent with the issuance of the EA, and in accordance with the PA, the

Trust then submitted a “consultation package” to ACHP, SHPO, and NPS. The consultation package included public comments received during the public scoping period, the EA, the draft Planning and Design Guidelines (see Appendix A of the EA), and a request for review and comment pursuant to the PA.

Following the decision to prepare this Draft SEIS, the Trust complied with requests from the Fort Point and Presidio Historical Association and the National Trust for Historic Preservation and deferred consultation until the Draft SEIS and a cultural landscape assessment (called for in Mitigation Measure CR-7) could be prepared. These documents were completed and submitted in August 2004 to all PA parties. A telephone conference call was held in November 2004 among the ACHP, SHPO, NPS, and Trust to reach agreement on the level of effect for the proposed undertaking. The consultation resulted in unanimous agreement that the undertaking would have no adverse effect on historic properties if the certification process for Federal Historic Preservation Tax Incentives were successfully completed. Should the certification process be withdrawn or not completed, the consultation on the project would continue.

Since preparation of the Draft SEIS, the Trust’s private development partner has expressed an interest in leasing a reduced number of buildings within the PHSH district compared to what was initially proposed. Leasing only a few buildings out of a set of buildings that were historically functionally related invokes certain provisions within the regulations governing the Federal Historic Preservation Tax Incentives process. To address this situation, a consultation telephone conference was held in January 2006, with SHPO, NPS Golden Gate National Recreation Area, and NPS Technical Preservation Services in Washington, D.C. During the call the Area of Potential Effect was redefined and a decision was made to write a Process Programmatic Agreement (PPA) to meet the requirements of both the Federal Historic Preservation Tax Incentives regulations and Section 106 for the restructured project. The PPA is consistent with and references stipulations of the Trust’s PA but adds other review requirements to meet the Tax Incentives requirements. The finalized PPA would be included in the private development team’s submission for Federal Historic Preservation Tax Incentives review.

4.2.4 U.S. Environmental Protection Agency (EPA)

The EPA reviews Draft EISs prepared by other federal agencies and makes those reviews public by publishing summaries of those comments, generally every Friday, in the Federal Register. As part of its review, the EPA rates Draft EISs using a rating system that provides a basis upon which the EPA makes recommendations to the lead agency for improving the document.

The EPA reviewed the PHSH information packet that the Trust distributed at the outset of scoping for the EA and recommended that the PHSH project expand wetland features and functions on the upper plateau. During scoping for the Draft SEIS, Trust staff met on-site to brief a representative of the EPA’s Federal Activities Office and responded to questions regarding EPA matters of interest in the project. In its comment letter on the Draft SEIS, the EPA rated the Draft SEIS as Lack of Objections (LO) and recognized “the Trust’s multiple objectives as well as the effort to address prior concerns associated with

the previous Environmental Assessment...” The EPA was satisfied with the selection of an alternative that would have fewer environmental impacts than the previous PTMP Alternative (Alternative 1). It also noted that while Alternative 3 offers a greater level of protection for sensitive plant and animal species and fewer construction emissions than the other alternatives, Alternative 2, in combination with proposed mitigation, addresses many of the EPA’s previous concerns regarding wetland impacts. The Trust complied with the EPA request that the Final SEIS address the feasibility of mitigating construction emissions.

4.2.5 U.S. Fish and Wildlife Service (USFWS)

Section 7 of the Endangered Species Act requires federal agencies, in consultation with the USFWS, to ensure that their actions do not jeopardize the continued existence of endangered and threatened species or result in the destruction or adverse modification of the critical habitat of these species. According to the Recovery Plan for Coastal Plants of the Northern San Francisco Peninsula recently published by the USFWS (August 8, 2003), the only federally endangered listed species within the PSHH district is the San Francisco lessingia (*Lessingia germanorum*), occurring in two areas north of the PSHH. Following formal consultation that included the proposed PTMP, the USFWS issued its Biological Opinion (BO) on Four Projects at the Presidio of San Francisco on July 19, 2002. It was the Service’s biological opinion that the project, as proposed, was not likely to jeopardize the continued existence of the species.

During scoping for the PSHH EA, the USFWS stated that, where existing buildings would be reused, direct impacts on the San Francisco lessingia appear unlikely, as long as construction vehicles are excluded from its habitat. Notwithstanding this assertion and its acknowledgement that it consulted on the PTMP Alternative (Alternative 1), in its comment letter on the Draft SEIS, the USFWS encouraged the Trust to adopt Alternative 3 citing: “[b]ecause the number of proposed dwelling units is substantially less than the other alternatives (except the No Action Alternative), the amount of day use is less, and the amount of building area is reduced, the indirect effects to the lessingia would be less than effects associated with other alternatives.” The USFWS supported the mitigation measures proposed in the Draft SEIS to reduce impacts on the San Francisco lessingia.

4.2.6 City and County of San Francisco (CCSF)

Trust staff met with CCSF Department of Parking and Traffic staff on December 18, 2003. DPT agreed to work cooperatively with Caltrans and Richmond district neighbors in planning for the potential new access to the project site off Park Presidio Boulevard. DPT urged the Trust to consider not only the engineering feasibility of this access, but also the issues of cost, Caltrans approval, schedule, and the source of funds for the improvement. Trust staff consulted with San Francisco Public Utilities Commission (SFPUC) staff to confirm that the PSHH project is taken into account in the SFPUC’s water use model and sewershed, and conferred with the CCSF’s Department of the Environment regarding solid waste generation within the PSHH district. Trust staff also periodically updated the Mayor’s Office of Neighborhood Services regarding the project and environmental review process. In its comment letter on the Draft SEIS, which is responded to in the Response to Comments volume of this Final SEIS, the CCSF

mentioned that its concerns regarding the development's impacts on the neighborhood and city services were "serious." The CCSF offered its commitment to continue working with the Trust to support a project that would be an asset to both the Presidio and the city.

4.3 LIST OF PERSONS AND AGENCIES CONSULTED

Mort Azimi, California Department of Transportation

Jan Blum, Presidio Park Stewards

Peter Brastow, former Restoration & Stewardship Coordinator and Natural Resources Specialist, Golden Gate National Recreation Area, National Park Service

Kathy Bunger

Karen Cantwell, Environmental Protection Specialist, Golden Gate National Recreation Area, National Park Service

Bert Carlson, NPS Communications Manager, Golden Gate National Recreation Area, National Park Service

Laura Castellini, Environmental Protection Specialist, Environmental Programs Office, Golden Gate National Recreation Area, National Park Service

Jim Chappell, President, San Francisco Planning and Urban Research Association

Charles Edwin Chase, Executive Director, San Francisco Architectural Heritage

Doris J. Cimagala, Records Clerk, Records Section, San Francisco Field Office, U.S. Park Police

Jane Crisler, Historic Preservation Specialist, Advisory Council on Historic Preservation

Helena (Leaka) Culik-Caro, Deputy District Director, California Department of Transportation

Shanna Draheim, Federal Activities Office, Cross Media Division, U.S. Environmental Protection Agency

Kevin Drew, Residential and Special Projects Recycling Coordinator, Department of the Environment, City and County of San Francisco

Gordon Duhon, Senior Program Manager, Commercial New Construction Program Customer Energy Management, Pacific Gas and Electric Company

Debby Dunn, Marketing and Community Relations, Golden Gate Disposal and Recycling Company

Becky Evans, Co-Chair, Sierra Club Presidio Committee, San Francisco Bay Chapter, Sierra Club

Rudy Evenson, Chief of Special Park Uses, Golden Gate National Recreation Area, National Park Service

Sharon Farrell, formerly with Aquatic Outreach Institute

Arthur Feinstein, Director of Conservation, Golden Gate Audubon Society

Holly Fiala, Director, Western Office, National Trust for Historic Preservation

Rick Foster, Landscape Architect/Transportation Planner, Golden Gate National Recreation Area, National Park Service

Erika L. Gabrielsen, Managing Director, Reputation LLC (representing Richmond Presidio Neighbors)

Thomas Gardali, Wildlife Biologist, Point Reyes Bird Observatory

Jared Goldfine, Senior Environmental Planner, California Department of Transportation

Ruth Gravanis, Golden Gate Audubon Society

David Gutierrez, District 2 Liaison, Mayor's Office of Neighborhood Services, City and County of San Francisco

Daphne Hatch, Chief of Natural Resources, Golden Gate National Recreation Area, National Park Service

Totton Heffelfinger, Point Reyes Bird Observatory/Sierra Club

Diane L. Hermann, President, Fort Point and Presidio Historical Association

Christine Hodakievic, Captain, U.S. Park Police, San Francisco Field Office

Mark Higbie, Richmond Presidio Neighbors

Tom Holly, Office of Transit and Community Planning, Caltrans District 4

Alan Hopkins, Golden Gate Audubon Society

Judith Hulka, President, Neighborhood Associations for Presidio Planning

Jeff Judd, Richmond Presidio Neighbors

Paula Kehoe, Manager of Water Resources Planning, Water Enterprise, San Francisco Public Utilities Commission

Matt Kiolbassa, Fire Protection Inspector, Presidio Fire Department

Steven Krefting, Presidio Sustainability Project

Jim Lazarus, Planning Association for the Richmond

Garrett Lee, former Natural Resource Management Specialist, Golden Gate National Recreation Area, National Park Service

Claudia Lewis, President, Richmond Presidio Neighbors

Jon Loiacono, Manager of Wastewater Engineering, Wastewater Enterprise, San Francisco Public Utilities Commission

Kyri S. McClellan, Project Manager, Base Reuse & Development, Mayor's Office of Economic and Workforce Development

Jake McGoldrick, Supervisor, District 1, City and County of San Francisco

Mansue Mamoodi, California Department of Transportation

Jennifer Entine Matz, Reputation LLC

Dr. Knox Mellon, State Historic Preservation Officer, Office of Historic Preservation, Department of Parks and Recreation

Bill Merkle, Wildlife Ecologist, Golden Gate National Recreation Area, National Park Service

Ron Miguel, President, Planning Association for the Richmond

Lawrence Ng, Senior Project Manager (Rule 20), San Francisco Project Services, Pacific Gas and Electric Company

Hon. Gavin Newsom, Mayor, City and County of San Francisco

Rodney Oto, California Department of Transportation

Tim Phipps, Fire Chief, Presidio Fire Department

Colleen Prince

Frank Rihtarshich, Chief, Fire Prevention, Presidio Fire Department

John Rizzo, Co-Chair, Sierra Club Presidio Committee, San Francisco Bay Chapter, Sierra Club

Gerald Robbins, Transportation Planner, San Francisco Department of Parking and Traffic

Leroy L. Saage, PE, Doyle Drive Project Manager, San Francisco County Transportation Authority

Greg Scott, President, Pacific Heights Residents Association

H. David Seriani, California Department of Transportation
William Shepard, Lake Street Residents Association
John Thomas, California Department of Transportation
Sharon Tsiu, Presidio Park Stewards
Nidal Tuqan, Regional Project Manager, California Department of Transportation
Ann Weinstock
Mark Weinstock
Kate White, Executive Director, Housing Action Coalition
Randy Zebell, California Native Plant Society

4.4 LIST OF PREPARERS AND CONTRIBUTORS

4.4.1 Document at Large

Celeste Evans, former NEPA Compliance Specialist, Presidio Trust
B.A., Environmental Studies, University of California, Santa Cruz

John Pelka, Compliance Manager, Presidio Trust
M.C.P., Environmental Planning, University of California, Berkeley
B.A., Urban Planning, Rutgers University

4.4.2 Transportation

José I. Farrán, PE, Principal Transportation Engineer, Wilbur Smith Associates
M.E., Transportation Engineering, University of California, Berkeley
B.S., Civil Engineering, Polytechnical University of Barcelona, Spain

Amy R. Marshall, Senior Transportation Planner, Wilbur Smith Associates
M.S., Transportation Engineering, University of California, Berkeley
B.S., Civil Engineering, University of Kentucky

Sam Morrissey, Senior Transportation Engineer, Wilbur Smith Associates
B.S., Civil Engineering, Rensselaer Polytechnic Institute

Nate Chanchareon, Senior Transportation Planner, Wilbur Smith Associates
M.S., Civil Engineering, Georgia Institute of Technology, Georgia
B.S., Civil Engineering, Thammasat University, Thailand

Lisa M. Young, Transportation Planner, Wilbur Smith Associates
M.A., Urban and Regional Planning, California State Polytechnic University, Pomona
B.A., Social Sciences, University of California, Irvine

4.4.3 Historic Resources

Ric Borjes, Federal Preservation Officer, Presidio Trust
B.A., Architecture, University of Colorado

4.4.4 Archaeological Resources

Sannie Osborn, Historic Archaeologist, Presidio Trust
Ph.D., Anthropology, University of Wisconsin, Milwaukee
M.S., Anthropology, University of Wisconsin, Milwaukee
B.A., Anthropology, California State University, Sacramento

4.4.5 Air Quality and Noise

Brewster Birdsall, PE, QEP, Senior Associate, Aspen Environmental Group
M.S., Civil Engineering, Colorado State University
B.S., Mechanics and Mechanical Engineering, Lehigh University

4.4.6 Utilities and Services

Mark Hurley, Engineering Manager, Presidio Trust
M.S., Environmental Engineering, Loyola Marymount University
B.S., Civil Engineering, Loyola Marymount University

James Kelly, Utility Manager, Presidio Trust
B.S., Civil Engineering, University of the Pacific
B.S., Engineering Management, University of the Pacific

4.4.7 Geology and Soils

George Ford, Manager of Remedial Construction, Presidio Trust
M.S., Engineering Geology, Stanford University
B.S., Geology, Stanford University

4.4.8 Hydrology, Wetlands and Water Quality

Kenneth Schwarz, Associate Principal, Jones & Stokes
Ph.D, Geomorphology, University of California, Los Angeles
M.A., Geography, University of California, Los Angeles
B.A., Regional Development, University of California, Berkeley

Jill M. Sunahara, Water Resources Specialist, Jones & Stokes
B.A., Earth Science, University of California, Berkeley

4.4.9 Biology

Marcia Semenoff-Irving, Ecologist, Jones & Stokes
M.A., Museum Studies, San Francisco State University
B.S., Forestry, University of California, Berkeley

John C. Sterling, Wildlife Biologist, Jones & Stokes
B.A., English, Humboldt State University

Brook S. Vinnedge, Environmental Scientist, Jones & Stokes
M.S., Environmental Science, Washington State University
B.A., Psychology, University of California, Berkeley

4.4.10 Visual Resources

Hillary Gitelman, former Director of Planning, Presidio Trust
M.S., Historic Preservation, Columbia University
M.A., History of Art, Yale University

4.5 AGENCIES AND ORGANIZATIONS TO WHOM COPIES OF THE FINAL SEIS WERE SENT (PARTIAL LISTING)

4.5.1 Public Agencies

United States Department of the Interior, National Park Service, Golden Gate National Recreation Area
United States Department of the Interior, Office of the Secretary, Office of Environmental Policy and
Compliance

United States Department of the Interior, Fish and Wildlife Service

United States Environmental Protection Agency, Region IX

Advisory Council on Historic Preservation

California Department of Health Services

California Department of Toxic Substances Control

California Department of Transportation, District 4

California Office of Planning and Research, State Clearinghouse

California State Historic Preservation Officer

Golden Gate Bridge, Highway and Transportation District

San Francisco Regional Water Quality Control Board

San Francisco County Transportation Authority

San Francisco Public Utilities Commission
City and County of San Francisco Department of Planning
City and County of San Francisco Department of Parking and Traffic

4.5.2 Elected Officials

Hon. Barbara Boxer, United States Senator
Hon. Diane Feinstein, United States Senator
Hon. Gavin Newsom, Mayor, City and County of San Francisco
Michela Alioto-Pier, Member, Board of Supervisors, District 2, City and County of San Francisco
Jake McGoldrick, Member, Board of Supervisors, District 1, City and County of San Francisco
Hon. Nancy Pelosi, Democratic Leader, House of Representatives
Leland Y. Yee, Assembly Member, 12th District

4.5.3 Neighborhood Organizations

Cow Hollow Association
Cow Hollow Neighbors in Action
Friends of Mountain Lake Park
Golden Gate Valley Neighborhood Association
Lake Street Residents Association
Neighborhood Associations for Presidio Planning
Pacific Heights Residents Association
Planning Association for the Richmond
Presidio Heights Association of Neighbors
Presidio Terrace Association
Richmond District Neighborhood Center
Richmond Presidio Neighbors
West Presidio Neighborhood Association

4.5.4 Natural Resource Conservation Organizations

Friends of Mountain Lake Park
Golden Gate Audubon Society
Golden Gate National Parks Conservancy
National Parks Conservation Association
People for a Golden Gate National Recreation Area
Presidio Sustainability Project
Sierra Club

4.5.5 Historic Preservation Organizations

California Heritage Council
Fort Point and Presidio Historical Association
National Trust for Historic Preservation
San Francisco Architectural Heritage

4.5.6 Civic Organizations

Bay Area Council
San Francisco Bicycle Coalition
San Francisco Planning and Urban Research Association

4.5.7 Libraries

San Francisco Main Public Library
San Francisco Public Library, Marina Branch
San Francisco Public Library, Presidio Branch
San Francisco Public Library, Richmond Branch
University of California, Berkeley, Institute of Governmental Studies

4.6 REFERENCES

Altman, B. and R. Sallabanks

2000 Olive-Sided Flycatcher (*Contopus cooperi*). The Birds of North America, No. 502 (A. Poole and F. Gill, eds.). The Birds of North America, Inc. Philadelphia, PA.

Architectural Resources Group (ARG)

1991 Assessment of the Public Health Services Hospital, San Francisco Presidio. Prepared for the National Park Service. San Francisco, CA.

1995 Guidelines for Rehabilitating Buildings at the Presidio of San Francisco. Dated March.

Aspen Environmental Group

2003 Short-Term Ambient Noise Measurements.

Bailey, Susan et. al.

1981 Public Health Service Hospitals. Dated March 18.

Bay Area Air Quality Management District (BAAQMD)

1999 BAAQMD CEQA Guidelines, Assessing the Air Quality Impacts of Projects and Plans. Revised December.

2000 Letter of Exemption for Operating Equipment at the Presidio, Building 1802. Dated December 18.

2004 Toxic Air Contaminant Control Program, Annual Report 2002. Dated June.

California Department of Conservation, California Geological Survey (formerly California Division of Mines and Geology)

1996 Probabilistic Seismic Hazard Assessment for the State of California. DMG Open-File Report 96-08. Sacramento, CA.

1997a Seismic Hazard Evaluation of the South Half of San Francisco North and Part of the Oakland West 7.5-Minute Quadrangles, San Francisco County, California. Open-File Report 97-05.

1997b Guidelines for Evaluating and Mitigating Seismic Hazards in California. Special Publication 117. Sacramento, CA. Adopted March 13, 1997 and updated May 28, 2002.

California Department of Education

2004 Fact Book 2004 – Handbook of Education Information.
<http://www.cde.ca.gov/re/pn/fb/yr04scholfacil.asp>. Sacramento, CA.

California Department of Fish and Game

2001 Natural Diversity Database Special Vascular Plants, Bryophytes and Lichens List. Dated January.

California Department of Health Services (DHS)

1997 Letter from Clifford L. Bowen, District Engineer, San Francisco District, Drinking Water Field Operations Branch to Brian O'Neill, Superintendent, GGNRA. Re: Presidio of San Francisco Domestic Water Supply Permit No. 02-04-97P-3810700. Dated May 9.

California Department of Transportation (Caltrans)

1999 Review of Preliminary Proposals for Providing Access to Park Presidio Boulevard (State Route 1) from the Public Health Services Hospital in the Presidio in San Francisco. Letter from Rodney N. Oto to Richard Tilles. Dated June 18.

California Integrated Waste Management Board (CIWMB)

2003 Solid Waste Information System (SWIS), <http://www.ciwmb.ca.gov/SWIS/>. Dated November 14.

2004 Estimated Solid Waste Generation Rates for Institutions and Commercial Establishments. Updated December 7.

2006 Countywide, Regionwide, and Statewide Jurisdiction Diversion Progress Report. Bay Area Preliminary Data. Report Year 2004.

Calkins, J.D., J.C. Hagelin, and D.F. Lott

1999 California Quail (*Callipepla californica*). The Birds of North America, No. 473 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

Cannings. R.J. and T. Angell

- 2001 Western Screech-Owl (*Otus kennicottii*). The Birds of North America, No. 597 (A. Poole and F. Gill, eds.). The Birds of North America, Inc. Philadelphia, PA.

Castellini, Laura and Gretchen Coffman

- 2003 Presidio Wetland Resources: U.S. Army Corps of Engineers and USFWS Potential Jurisdictional Wetlands.

City and County of San Francisco (CCSF)

- 1971 San Francisco Master Plan for Waste Water Management. Preliminary Book of Plates. Dated September 15.
- 1973 San Francisco Wastewater Master Plan. Prepared by J.B. Gilbert & Associates and Metcalf & Eddy Inc. Dated March.
- 1990 Richmond Transport Project Final Environmental Impact Report. Prepared by the Planning Department. Final EIR Certification Date: June 28.
- 1993 Citywide Travel Behavior Study: Employees and Employers. Prepared by the Planning Department. Dated May.
- 1994 Mutual Aid Agreement Between the San Francisco Fire Department and the Golden Gate National Recreation Area for Fire Protection Services. San Francisco Fire Department. Approved December 23.
- 1999 Resource Efficiency Requirements for City-Owned Facilities and City Leaseholds. Part I of the San Francisco Municipal Code (Administrative Code), Chapter 82. Approved June 2.
- 2001 Memorandum of Understanding Between the Chief, San Francisco Police Department, and the Chief, United States Park Police, and the General Superintendent of Golden Gate National Recreation Area. Dated September 11.
- 2002a MUNI Bus and Metro FY2004-2005 Weekday Conditions. Prepared by San Francisco Municipal Railway.
- 2002b Transportation Impact Analysis Guidelines for Environmental Review. Prepared by the City and County of San Francisco Planning Department. Dated October.
- 2003 Land Use Allocation 2002. Dated October 6.
- 2004a Housing Element of the General Plan. Prepared by the San Francisco Planning Department. Adopted May 14.
- 2004b Traffic Collision History Report. Prepared by the City and County of San Francisco Department of Parking and Traffic. Dated January 6.
- 2005 San Francisco Achieves 67 Percent Recycling, Lowest Disposal in Over Twenty Years. News release prepared by the Department of the Environment. Dated June 2.

City of San Diego

- 1998 The City of San Diego Draft Trip Generation Manual. Prepared by the City of San Diego Transportation Planning. Dated September. San Diego, CA.

Dames & Moore

- 1994 Presidio of San Francisco Storm Water Management Plan. Prepared for the National Park Service Department of the Interior, Denver Service Center, Technical Information Center. (Contract No. 1443CX200092035.) Draft Work-in-Progress. Dated October.

DKS Associates

- 2004 Doyle Drive Environmental and Design Study: Traffic and Transit Operations Report. Approved by the San Francisco County Transportation Authority. Dated December.

Doherty, Tim

- 2002 Special-Status Plant Monitoring Report. Submitted to Presidio Natural Resources, GGNRA.

Eckerle, K.P. and C.F. Thompson

- 2001 Yellow-Breasted Chat (*Icteria virens*). The Birds of North America, No. 575 (A. Poole and F. Gill, eds.). The Birds of North America, Inc. Philadelphia, PA.

Erler & Kalinowski, Inc.

- 2005 Draft Landfills 8 and 10 Feasibility Study Report. Dated June.

Faye Bernstein & Associates

- 1999 Structural Engineering Report for the Presidio Public Health Services Hospital. Dated June.

Fong & Chan Architects

- 1990 Reactivation Master Plan for the U.S. PHS, San Francisco, California. Prepared for the City and County of San Francisco.

Gardali, T.

- 2002 Monitoring Songbirds in the Presidio: 1999 to 2002 Final Report. PRBO Conservation Science Contribution No. 1065, 4990 Shoreline Highway, Stinson Beach, CA.

Grinnell, J. and A. Miller

- 1944 The Distribution of the Birds of California. Pacific Coast Avifauna No. 27. p. 615.

Institute of Transportation Engineers

- 1997 Trip Generation Manual-Sixth Edition.

Harley, J., T. Gardali, and Cody Martz

- 2003 Conservation of California Quail in the Presidio of San Francisco: Quail Monitoring Report. PRBO Conservation Science Contribution No. 1100, 4990 Shoreline Highway, Stinson Beach, CA.

Heady, P.A. III and W.F. Frick

- 2003 Interim Report for Bat Assessment Survey for the San Francisco Presidio. Prepared for the Presidio Trust. Aptos, CA.

Institute of Transportation Engineers

- 1987 Parking Generation Manual, Second Edition.

John Stewart Company and Related Companies

- 2003 Proposal for the Public Health Service Hospital at the Presidio. Submitted to the Presidio Trust. Dated October. San Francisco, CA.
- 2004 Letter to John Fa from Jack D. Gardner, President and CEO. Re: Responses to Follow-up Questions. Dated January 9. San Francisco, CA.

Jones & Stokes

- 1997 Presidio of San Francisco Natural Resource Inventory and Vegetation Management Options. Prepared for Golden Gate Recreation Area, National Park Service, Fort Mason, Building 201, San Francisco, CA.
- 2003 Technical Memo—Field notes from hydrologic investigation at Battery Caulfield. Prepared for the Presidio Trust. Dated December. Oakland, CA.

LSA Associates, Inc.

- 2001 Golden Gate Audubon Society's Save the Quail Campaign – Plan for Restoring California Quail in San Francisco. Submitted to Golden Gate Audubon Society. Dated November 14. Berkeley, CA.

Lowther, P.E., C. Celada, N.K. Klein, C.C. Rimmer, and D.A. Spector

- 1999 Yellow Warbler (*Dendroica petechia*). The Birds of North America, No. 454 (A. Poole and F. Gill, eds.). The Birds of North America, Inc. Philadelphia, PA.

Maniery, Mary L., PAR Environmental Services

- 1994 Summary of the San Francisco Marine Hospital Cemetery, Presidio of San Francisco, California. Submitted to US Army Corps of Engineers, Sacramento District.

Manolis, T.

- 2003 The Dragonflies and Damselflies of California. University of California Press, Berkeley, Los Angeles, and London.

Marks, J.S., D.L. Evans, and D.W. Holt

- 1994 Long-Eared Owl (*Asio otus*). The Birds of North America, No. 133 (A. Poole and F. Gill, eds.). The Birds of North America, Inc. Philadelphia, PA.

Montgomery Watson

- 1996 Draft Basewide Groundwater Monitoring Plan for the Presidio of San Francisco, California. Attachment F.9. Walnut Creek, CA. Prepared for U.S. Army Corps of Engineers, Sacramento District.

- 1999 Nike Missile Facility Groundwater Monitoring Program Annual Summary Report. July 1998-April 1999 Quarterly Monitoring Periods. Presidio of San Francisco, California. Prepared for U.S. Army Corps of Engineers, Sacramento District. Dated October. Walnut Creek, CA.
- 2000 Groundwater Monitoring Program Annual Summary Report. Winter 1999 Quarterly Reports for Landfill 8. Presidio of San Francisco, California. Prepared for the Presidio Trust. Dated May. Walnut Creek, CA.

NAI BT Commercial

- 2005 San Francisco Office Report Q4-2005.

National Academy of Public Administration (NAPA)

- 2004 Presidio Trust Financial Analysis and Organization Study. Dated January.

National Fire Protection Association (NFPA)

- 2001 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Career Fire Departments. Prepared by the Technical Committee on Fire and Emergency Service Organization and Deployment. Approved August 2.

National Park Service (NPS), U.S. Department of the Interior

- 1992a The Secretary of the Interior's Standards for the Rehabilitation of Historic Properties.
- 1992b The Secretary of the Interior's Guidelines for the Treatment of Cultural Landscapes.
- 1999 Presidio of San Francisco Vegetation Management Plan and Environmental Assessment. Golden Gate National Recreation Area.
- 2004a E-mail from Ric Borjes, Chief, Cultural Resources and Museum Management, GGNRA to Hillary Gitelman, Planning Director, Presidio Trust. Subject: PHSW Walk-through on March 17, 1994. Dated January 15.
- 2004b EA Review Comments for the US Public Health Hospital Complex. Prepared by Presidio Fire Department. Dated January 9.
- 2004c Incidents January 2002 – May 2004 Public Health Service Hospital. United States Park Police Records Section, San Francisco Field Office. Records search prepared by Doris J. Cimigala. 21 pages. Dated June 4.

NPS and Presidio Trust

- 2003 Presidio Trails and Bikeways Master Plan & Environmental Assessment. Dated July.

NPS and URS Corporation

- 2003 Presidio Wetland Resources. U.S. Army Corps of Engineers Potential Jurisdictional Wetlands and U.S. Fish and Wildlife Service Wetland Habitat on the Presidio of San Francisco. Dated April. San Francisco, CA.

Park, Sharon C., AIA

- 1993 “Mothballing Historic Buildings,” National Park Service Technical Preservation Services, Preservation Brief Number 31.

Phillip Williams and Associates, Ltd, Harding-Lawson and Associates, Inc., and KCA Engineers

- 1995 Restoration Plan for Lobos Creek. Prepared for the Golden Gate National Recreation Area, San Francisco, CA. Dated December.

Presidio Trust (Presidio Trust)

- 1999 Request for Qualifications for the Public Health Service Hospital Complex.
- 2001 Watershed Sanitary Survey: Presidio Water Treatment Plant. Presidio of San Francisco, California. System 38–700. Updated by the Presidio Trust. San Francisco, CA.
- 2002a Presidio Trust Management Plan – Land Use Policies for Area B of the Presidio of San Francisco. Dated May.
- 2002b Final Environmental Impact Statement. Presidio Trust Management Plan – Land Use Policies for Area B of the Presidio of San Francisco. Volumes I, II, and III. Dated May.
- 2002c Record of Decision. Presidio Trust Management Plan – Land Use Policies for Area B of the Presidio of San Francisco. Dated August.
- 2002d Presidio Trust Comments on Draft Recovery Plan for Coastal Plants of the Northern San Francisco Peninsula. Letter from Craig Middleton to Field Supervisor, Sacramento Fish and Wildlife Office, USFWS. Dated April 25.
- 2002e Presidio California Quail Habitat Enhancement Action Plan. San Francisco, CA.
- 2003a Request for Qualifications – The Public Health Service Hospital at the Presidio of San Francisco.
- 2003b Public Health Service Hospital Draft Planning and Design Guidelines. Dated March.
- 2003c Request For Proposals – The Presidio Trust Public Health Service Hospital Complex. Dated August 27.
- 2003d Revised Feasibility Study for Main Installation Sites.
- 2003e Access Study at 14th/15th Avenue Gates. Draft dated February 11.
- 2003f PHSU Utility Summary and Cost Estimates memorandum. Written by James Kelly to John Fa. Dated November 21. San Francisco, CA.
- 2004a January 2004 Presidio Trust Determination and National Park Service Concurrence pursuant to Stipulation VI(C) of the “Programmatic Agreement Among the Presidio Trust, National Park Service, The Advisory Council on Historic Preservation, and the California State Historic Preservation Officer Regarding the Presidio Trust Management Plan and Various Operation and Maintenance Activities for Area B of the Presidio of San Francisco, Golden Gate National Recreation Area.”

- 2004b Environmental Assessment. The Public Health Service Hospital at the Presidio of San Francisco. Dated February.
- 2004c Project Update for the Public Health Service Hospital, Presidio of San Francisco. Dated February.
- 2004d Project Update for the Public Health Service Hospital, Presidio of San Francisco. Dated August.
- 2006 Technical Memorandum Regarding Financial Feasibility of Project Alternatives for the Presidio Trust Public Health Service Hospital. Dated: May 5.

Robert Peccia and Associates

- 1999a Presidio Bus Management Plan – Support Document. Prepared for United States Department of the Interior, National Park Service, Presidio Project Office. Dated September. Helena, MT.
- 1999b Draft Technical Memorandum: Presidio of San Francisco, 1999 Pedestrian and Bicycle Count Program. Dated November.

Rosegay, M.L.

- 1996 The Presidio of San Francisco in San Francisco Peninsula Birdwatching (C. Richer, ed.). Sequoia Audubon Society, 30 West 39th Avenue, Suite 202, San Mateo, CA.

San Francisco Public Utilities Commission (SFPUC)

- 2005a Urban Water Management Plan for the City and County of San Francisco. Dated December.
- 2005b Letter to Mr. Craig Middleton, Presidio Trust from Karen Hurst, Regulatory Specialist, SFPUC Water Enterprise – Water Resources Planning Division. Re: Response to Letter of 11/15/05 Commenting on Draft 2005 Urban Water Management Plan for the City and County of San Francisco. Dated December 9.

Sedway Group/CBRE Consulting

- 2004 Technical Memorandum Regarding the Financial Feasibility of Project Alternatives for Presidio Trust Public Health Service Hospital Environmental Assessment. Memorandum Prepared for the Presidio Trust. Dated February 20.

Shuford, W. D.

- 1993 The Marin County Breeding Bird Atlas: A Distributional and Natural History of Coastal California Birds. California Avifauna Series 1. Bushtit Books. Bolinas, CA.

Thompson, Erwin N.

- 1997 Defender of the Gate: The Presidio of San Francisco A History from 1846 to 1995. Dated July.

Transportation Research Board

- 2000 Highway Capacity Manual. Prepared by the Transportation Research Board, National Research Council.

Treadwell & Rollo, Inc.

2003a Geotechnical Feasibility Study for Battery Caulfield Development at the Presidio, San Francisco, California. Prepared for the Presidio Trust. Dated May 19. San Francisco, CA.

2003b Draft Semi-Annual Groundwater Monitoring Report. First and Second Quarters 2003. Presidio-wide Quarterly Groundwater Monitoring Program. Prepared for the Presidio Trust. Dated October. San Francisco, CA.

Turner Construction Company

2006 Turner Building Cost Index (www.turnerconstruction.com/costindex).

URS Corporation (URS)

2003 Letter to Cheryl Widell Reporting Discoveries of Human Skeletal Remains at Landfill 8. Dated February 11.

2004 Five-Year Review and Field Investigation Report for Landfills 8 & 10, (Draft), Presidio of San Francisco. Dated January.

Urban Watershed Project

2001 Lobos Creek Water Quality Investigation and Management Plan. Presidio of San Francisco, California. Prepared for the U.S. National Park Service, Golden Gate National Recreation Area, Resource Management and Planning. Dated February. San Francisco, CA.

U.S. Army

1995 CERCLA Record of Decision for the Public Health Service Hospital.

U.S. Fish and Wildlife Service (USFWS)

2002 Memorandum from Acting Field Supervisor, Sacramento Fish and Wildlife Office, Sacramento, California to Superintendent, GGNRA, NPS, San Francisco, California. Subject: Formal Consultation on Four Projects at the Presidio of San Francisco and GGNRA, San Francisco, CA. Dated July 23.

2003 Final Recovery Plan for Coastal Plants of the Northern San Francisco Peninsula. Portland, Oregon.

Vasey, Michael

1996 Baseline Inventory of Terrestrial Vegetation on Natural Lands of the Presidio of San Francisco, California.

Wilbur Smith Associates

1999 Presidio Public Health Service Hospital Transportation Study. Implementation Planning for the Presidio. Dated July 6.

2002 Presidio Residential Neighborhood Parking Study. Prepared for the Presidio Trust. Dated January 11. San Francisco, CA.

2003 Presidio Public Health Service Hospital Transportation Study: Additional Alternatives Analysis. Prepared for the Presidio Trust. Dated December. San Francisco, CA.

- 2004 Public Health Service Hospital Site Draft Supplemental Environmental Impact Statement: Technical Memorandum No. 5, Sensitivity Analysis for Trip Assignment and Generation. Prepared for the Presidio Trust. Dated August.
- 2006a Public Health Service Hospital Site Final Supplemental Environmental Impact Statement: Technical Memorandum No. 1, Expanded Existing Conditions. Prepared for the Presidio Trust. Dated March.
- 2006b Public Health Service Hospital Site Final Supplemental Environmental Impact Statement: Technical Memorandum No. 2, Expanded Travel Demand Assumptions. Prepared for the Presidio Trust. Dated March.
- 2006c Public Health Service Hospital Site Final Supplemental Environmental Impact Statement: Technical Memorandum No. 3, Expanded Transportation Impact Analysis of Alternatives. Prepared for the Presidio Trust. Dated March.
- 2006d Public Health Service Hospital Site Final Supplemental Environmental Impact Statement: Technical Memorandum No. 4, Existing and Project Transportation Impact Analysis of Alternatives. Prepared for the Presidio Trust. Dated March
- 2006e Public Health Service Hospital Site Final Supplemental Environmental Impact Statement: Technical Memorandum No. 7, Traffic Signal Warrant Analysis. Prepared for the Presidio Trust. Dated March.

Working Group on California Earthquake Probabilities

- 2002 Summary of Earthquake Probabilities in the San Francisco Bay Region: 2003 to 2032.

Yosef, R.

- 1996 Loggerhead Shrike (*Lanius ludovicianus*). The Birds of North America, No. 346 (A. Poole and F. Gill, eds.). The Birds of North America, Inc. Philadelphia, PA.

List of Acronyms

ABAG	Association of Bay Area Governments
ACHP	Advisory Council on Historic Preservation
ADA	Americans With Disabilities Act
ALS	advanced life support
AMA/MP	Archaeological Management Assessment and Monitoring Program
BAAQMD	Bay Area Air Quality Management District
BO	Biological Opinion
BR	bedrooms
Caltrans	California Department of Transportation
CAP	Clean Air Plan
CARB	California Air Resources Board
CCSF	City and County of San Francisco
CDFG	California Department of Fish and Game
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CHC	California Heritage Council\
CIWMB	California Integrated Waste Management Board
CO	carbon monoxide
CSO	combined sewer overflows
CTBS	Citywide Travel Behavior Survey
dBA	A-weighted decibel
DHS	California Department of Health Services
DPT	San Francisco Department of Parking and Traffic
DTSC	California Department of Toxic Substances Control
EA	environmental assessment
EIS	environmental impact statement
EPA	U.S. Environmental Protection Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FMP	Financial Management Plan
FONSI	Finding of No Significant Impact
FY	Fiscal Year
GGNRA	Golden Gate National Recreation Area
GGBHTD	Golden Gate Bridge, Highway and Transportation District
GGT	Golden Gate Transit

GMPA	General Management Plan Amendment
GSA	General Services Administration
gpd	gallons per day
HCM	Highway Capacity Manual
Highway 1	Park Presidio Boulevard
ITE	Institute of Transportation Engineers
kWh	kilowatt-hour
LDA	Letterman Digital Arts Ltd.
LOS	level of service
LUCs	Land Use Controls
LSRA	Lake Street Residents Association
MMBtu/hr	million British thermal units per hour
MTA	Municipal Transportation Agency
MUNI	San Francisco Municipal Railway
MUTCD	Manual on Uniform Traffic Control Devices
Mw	moment magnitude
NAC	Noise Abatement Criteria
NAGPRA	Native American Graves Protection and Repatriation Act
NAPA	National Academy of Public Administration
NAPP	Neighborhood Associations for Presidio Planning
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
NHLD	National Historic Landmark District
NHPA	National Historic Preservation Act
NO _x	nitrogen oxides
NPS	National Park Service
OSP	Oceanside Water Pollution Control Plant
PA	Programmatic Agreement
PAHs	polynuclear aromatic hydrocarbons
PAR	Planning Association for the Richmond
PCBs	polychlorinated biphenyls
PG&E	Pacific Gas and Electric Company
PHRA	Pacific Heights Residents Association
PHSH	Public Health Service Hospital
PHSH district	Public Health Service Hospital planning district
PM ₁₀	dust (particulate matter)
PPA	Process Programmatic Agreement
PresidiGo	the Presidio's internal shuttle

Presidio	Presidio of San Francisco
PSD	Prevention of Significant Deterioration
PSR/PR	Project Study Report/Project Report
PTMP	Presidio Trust Management Plan
RAP	Remedial Action Plan
RFP	Request for Proposal
RFQ	Request for Qualifications
RLOS	residential level of service
ROD	Record of Decision
ROG	reactive organic gases
RPN	Richmond Presidio Neighbors
SDC	Service District Charge
SEIS	supplemental environmental impact statement
sf	square feet
SFCTA	San Francisco County Transportation Authority
SFDPT	San Francisco Department of Parking and Traffic
SFFD	San Francisco Fire Department
SFFO	San Francisco Field Office
SFPD	San Francisco Police Department
SFPUC	San Francisco Public Utilities Commission
SFUSD	San Francisco Unified School District
SHPO	California State Historic Preservation Officer
SIP	State Implementation Plan
SPUR	San Francisco Planning and Urban Research Association
SRO	single-resident-occupied
SVOCs	semi-volatile organic compounds
SWPPP	Storm Water Pollution Prevention Plan
TCMs	Transportation Control Measures
TDM	Transportation Demand Management
TIS	Traffic Impact Study
TPH	total petroleum hydrocarbons
UCSF	University of California at San Francisco
USFWS	U.S. Fish and Wildlife Service
USPP	U.S. Park Police
VMP	Vegetation Management Plan

Glossary

This section provides layperson's terms to aid reader understanding rather than technical definitions that may apply in a specialized field of knowledge.

Adverse effect – With respect to historic properties, direct or indirect harm. The National Historic Preservation Act regulations set forth criteria used to assess adverse effect at 36 CFR § 800.9.

Air pollutant – Foreign or natural substances that are discharged, released, or over-generated into the atmosphere that could result in adverse effects on humans, animals, vegetation or materials. Also known as an air contaminant. Examples include but are not limited to smoke, charred paper, dust, soot, grime, carbon, fumes, gases, odors, particulate matter, acids, or any combination thereof.

Air Quality Management District – Local government agency charged with controlling air pollution and attaining air quality standards. The Presidio is included in the Bay Area Air Quality Management District.

ALS – Advanced Life Support. Functional provision of advanced airway management, including intubation, advanced cardiac monitoring, manual defibrillation, establishment and maintenance of intravenous access, and drug therapy.

Ambient air quality standards – Health- and welfare-based standards established by the state or federal government for clean outdoor air that identify the maximum acceptable average concentrations of air pollutants during a specified period of time.

Ambient noise – The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term “ambient” is used to describe an existing or pre-project condition such as the setting in an environment noise study.

Ambient noise level – The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.

Annual base rent – The annual basic minimum rent once construction has been completed figured in accordance with the use of the property and anticipated economic performance.

Archaeological resource – Any material remains or physical evidence of past human life or activities that are of archaeological interest, including the record of the effects of human activities on the environment. An archaeological resource is capable of revealing scientific or humanistic information through archaeological research.

Area A – The predominately coastal area of the Presidio, comprising about 320 acres, under the jurisdiction and management of the National Park Service.

Area B – The area of the Presidio, comprising about 1,160 acres, under the administrative jurisdiction of the Presidio Trust. Area B is defined in Title I of the Presidio Trust Act and includes the interior (non-coastal) portion of the Presidio and nearly all built areas of the park.

Area of Potential Effects – The geographic area or areas within which an undertaking could cause changes in the character or use of historic properties, if any such properties exist there. This area always includes the actual site of the undertaking, and could also include other areas where the undertaking will cause changes in land use, traffic patterns, or other aspects that could affect historic properties.

Attainment – Achievement of air quality standards.

Base rent – See direct rent.

Battery Caulfield – See Public Health Service Hospital (PHSH) district.

Best Management Practices (BMPs) – Practices that apply the most current methods and technologies available not only to comply with mandatory environmental regulations, but also maintain a superior level of environmental performance. BMPs may include schedules for activities, prohibitions, maintenance guidelines, and other management practices.

Biological Opinion – A document that includes 1) the opinion of the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NOAA Fisheries) as to whether or not a federal action is likely to jeopardize the continued existence of listed species, or result in the destruction or adverse modification of designated critical habitat; 2) a summary of the information on which the opinion is based; and 3) a detailed discussion of the effects of the action on listed species or designated critical habitat.

Carbon monoxide (CO) – A colorless, odorless toxic gas produced by the incomplete combustion of carbon-containing substances. It is emitted in the exhaust of gasoline-powered vehicles.

Capital costs – Monies spent to rehabilitate, upgrade, or newly construct the built and natural environments, including residential and non-residential buildings, interior improvements, roads, utility systems, water and sewer systems, electrical and telecommunications systems, forests, trail improvements, landscaping, plant restoration, and other open space improvements, among other items. Capital costs do not include operating expenses.

Capital improvements – See capital costs.

Capital reserves – Funds maintained to pay for anticipated capital costs, taking into account the building's historical fabric and maintenance status.

Categorical Exclusion – A category of federal actions that do not individually or cumulatively have a significant effect on the human environment and for which, therefore, neither an EA nor an EIS is required.

Central Green – A defined open space west of the Wyman Avenue houses and north of Building 1802 (Engineering Building) that serves as a remnant of the 19th century road network within the PHS district.

Cleanup process – A comprehensive program for the cleanup (remediation) of an environmentally contaminated site. It involves investigation, analysis, development of a cleanup plan and implementation of that plan.

Character-defining features – Visual aspects and physical features that comprise the appearance of an historic building. Character-defining features include the overall shape of the building, its materials, craftsmanship, decorative details, and interior spaces and features, as well as the various aspects of the building’s site and environment.

CNEL – Community Noise Equivalent Level. The 24-hour average noise level, with noise occurring during evening hours (7:00 – 10:00 PM) weighted by a factor of three and nighttime hours weighted by a factor of ten prior to averaging.

Conformity – A process mandated in the federal Clean Air Act to insure that federal actions do not impede attainment of the federal health standards. General conformity sets out a process that requires federal agencies to demonstrate that their actions are neutral or beneficial to air quality.

Construction site – The location of construction activity.

Criteria air pollutants – Air pollutants for which the federal or state government has established ambient air quality standards or criteria for outdoor concentration in order to protect public health.

Cultural landscape – A geographic area, including cultural and natural resources and the wildlife or domestic animals therein, associated with an historic event, activity, or person or exhibiting other cultural or aesthetic values. At the Presidio, the cultural landscape is inextricably linked to the Presidio’s continuous military occupation since 1776.

Cultural resource – An aspect of a cultural system that is valued by or significantly representative of a culture or that contains significant information about a culture. A cultural resource can be a tangible entity or a cultural practice. Tangible entities at the Presidio include archaeological resources, cultural landscapes, and historic structures.

Cumulative effects – The estimated combined effects that are a result of the impacts of an action, when added to other past, present, and reasonably foreseeable future actions, regardless of the agency (federal or non-federal) or person to undertake such actions.

dB or dBA – A decibel (dB) is the standard unit of sound amplitude, or loudness; decibels are measured on a logarithmic (i.e., non-linear) scale. The A-weighted (dBA) scale is adjusted for human sensitivity. For decibels, each increase in 10 dB multiplies the previous value by 10; for example, 50 dBA is 10 times louder than 40 dBA, while 60 dBA is 100 times louder than 40 dBA.

Development agreement – A contract between a private development partner and a government entity such as the Trust that may specify conditions, terms, restrictions, and regulations pertaining to all aspects of a development.

Direct effect – An impact that occurs as a result of the proposed action or alternative in the same place and at the same time as the action.

Direct rent – Any amount that the building tenant is or becomes obligated to pay the landlord (Presidio Trust) under the lease or other agreement.

Discount rate – The interest rate used to convert expected future income into a present value.

Diversion – For waste measurement purposes, any combination of waste prevention (source reduction), recycling, reuse, and composting activities that reduces waste disposed at permitted landfills and transformation facilities.

Emergency medical services (EMS) – The provision of treatment to patients that occurs prior to arrival at a hospital or other health care facility.

Endangered species – Any species in danger of extinction throughout all or a significant portion of its range.

Environmental Assessment (EA) – A concise public document that analyzes the environmental impacts of a proposed federal action and provides sufficient evidence to determine the level of significance of the impacts.

Environmental Impact Statement (EIS) – A detailed NEPA document prepared when a proposed action or alternative has the potential for significant impact on the human environment.

Environmental review – See NEPA process.

Equity – The interest or value that the investor has in their premises' improvements over and above the debts or liens against it.

Exceedance – A monitored level of concentration of any air contaminant higher than federal or state ambient air quality standards.

External trip – A trip that originates outside the Presidio and terminates in the Presidio, or originates in the Presidio and terminates outside the Presidio.

Federal Register – A daily publication of the National Archives and Records Administration that updates the Code of Federal Regulations, in which the public may review the regulations and legal notices issued by federal agencies.

Financial Management Program – A long-range projection required by the Presidio Trust Act to be submitted to Congress setting forth an annual schedule of decreasing federal funding that will achieve self-sufficiency for the Trust by 2013.

Financial sustainability – The long-term aspect of financial self-sufficiency. The premise that the Presidio must not only meet short-term self-sufficiency requirements in Fiscal Year 2013, but also be capable of sustaining its operations, performing the necessary building- and infrastructure-related capital improvements, and funding replacement reserves in perpetuity. This requires generating sufficient revenues from leasing and other activities to cover these long-term costs.

Finding of No Significant Impact (FONSI) – A public document that briefly describes why an action would not have a significant effect on the human environment and, therefore, will not require preparation of an EIS.

Fire flows – Water flows available for fighting fires. Fire flows at the Presidio can be deficient due to undersized water mains, bottlenecks created by pressure release valves or water meters, unusable piping, or spacing of fire hydrants farther apart than permitted by the Uniform Fire Code.

Form letter – A letter reflecting the work of an organized response campaign that is separately received by the Trust during the scoping period but containing identical or very closely paraphrased text. Additional comments included in a given form are noted and taken into consideration by the Trust to help define the scope of a project.

Fugitive dust – Dust particles that are introduced into the air through certain activities, such as excavation and site preparation during construction or some demolition activities, or use of off-road vehicles or any vehicles operating on open fields or dirt roadways.

General Management Plan Amendment (GMPA) – The NPS management plan for Area A of the Presidio.

General Objectives of the GMPA – A directive of Congress incorporated into the Presidio Trust Act with which the Trust must comply. Because the GMPA text does not explicitly identify general objectives, the Trust Board determined and adopted the General Objectives of the GMPA in Trust Board Resolution 99-11. The General Objectives guide Trust policy and decisions about resource protection and land and building use in Area B of the Presidio.

Generation – The total amount of waste produced by a jurisdiction.

Geologic hazards – Natural geologic processes (i.e., earthquakes) that occur or could potentially occur in locations that present a threat to humans or developed areas.

Green design – Design and construction practices that significantly reduce or eliminate the potential negative influence of buildings on their occupants and the environment.

Gross building area – Total floor area of a building, usually measured from its outside walls.

Ground lease – The right to use a land parcel for a definite length of time by a tenant who invests the necessary capital to develop and construct improvements (e.g., buildings) on the site.

Ground rent – The rent paid for the use of land under the terms of a ground lease.

Groundwater – Subsurface water that occurs beneath the water table in soils and geologic formations that are fully saturated. Also see Surface water.

Guaranteed ride home program – A program that assures an employee not arriving in his or her personal vehicle of a trip home. For example, an employee may have to work later than the departure time of his carpool or the last bus to his destination. The program would then provide the employee with a ride home in a company vehicle, subsidized taxicab, or similar type vehicle.

Habitat – Home for a plant or animal.

Habitat restoration – Returning the quantity and quality of habitat to some previous naturally occurring condition, most often some baseline considered suitable and sufficient to support self-sustaining populations of fish and wildlife.

Hazardous substance – A substance that is potentially harmful to human health or the environment.

Hazardous waste – A waste with properties that make it dangerous or potentially harmful to human health or the environment.

Historic property – Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register. The term includes artifacts, records, and remains that are related to and located in such properties. The term “eligible for inclusion in the National Register” includes both properties formally determined as such by the Secretary of the Interior and all other properties that meet National Register listing criteria.

Historic tax credit – Established by the Tax Reform Act of 1986 (PL 99-514; Internal Revenue Code Section 47), a rehabilitation tax credit equal to 20 percent of the amount spent in a certified rehabilitation of a designated historic structure and that may be used to offset taxes payable.

Historic views – Those views and view corridors that existed at the Presidio during its period of significance.

Hospital Buffer – A 50- to 75-foot-wide vegetated area on the south-facing dune slope behind the PHS complex that will be managed to minimize potential conflicts between Building 1801 operations and adjacent San Francisco lessingia populations on the upper plateau.

Impact topics – Specific natural, cultural, or socioeconomic resources that would be affected by the proposed action or alternatives (including no action). The magnitude, duration, and timing of the effect on each of these resources are evaluated in the Environmental Consequences section of an EA or EIS.

Indirect effects or impacts – Reasonably foreseeable impacts removed in time or place from the proposed action. These are “downstream” impacts, future impacts, or the impacts of reasonably expected connected actions (e.g., growth of an area after a highway leading to it is complete).

Infill construction – New construction that is located within an existing developed area, such as a building complex. In the Presidio, infill construction also refers to new development within developable areas.

Infiltration – The downward entry of water into the surface of the soil.

Internal Rate of Return (IRR) – See Unleveraged Internal Rate of Return.

Internal trip – A trip that both originates and terminates in the Presidio.

Interpretation – The telling of a park’s “story” through programs and activities.

Land Use Controls – Administrative and legal tools that do not involve construction or physically changing an environmental cleanup site. In many site cleanups, land use controls help reduce the possibility that people will come in contact with contamination and may also protect expensive cleanup equipment from damage.

Landfill – A waste management unit at which waste is discharged in or on land for disposal.

Landscape vegetation – Plant material, usually ornamental trees, shrubs, grass, and plants growing around buildings or grounds, that has been planted to beautify the site or for a utilitarian purpose such as screening a view.

Lateral spreading – A phenomenon in which surficial soil displaces along a shear zone that has formed within an underlying liquefied layer. Upon reaching mobilization, the surficial blocks are transported downslope or in the direction of a free face by earthquake and gravitational forces.

L_{dn} – A day-night average noise level, a 24-hour average L_{eq}; it takes into account the greater annoyance of nighttime noise with a 10 dBA “penalty” added during the hours of 10:00 PM to 7:00 AM.

Lead agency – The agency either preparing or taking primary responsibility for preparing the NEPA document.

Lease agreement – A written contract between a landlord and a tenant that transfers the right to exclusive possession and use of the landlord’s real property to the tenant for a specified period of time and for a stated rent.

LEED (Leadership in Energy and Environmental Design) Green Building Rating System – A voluntary, consensus-based national standard for developing high-performance, sustainable buildings.

L_{eq} – The equivalent steady-state sound level, or the average acoustic energy content of noise for a stated period of time. The L_{eq} of two different time-varying noise events are the same if the events deliver the same acoustic energy to the ear during exposure, no matter what time of the day or night they occur, unlike some other measurements that adjust for differences in noise sensitivity at night.

Level of Service (LOS) – A qualitative measure describing operational conditions within a traffic stream, based on service measures such as delay, speed, and travel time.

Light industrial – The use of land or buildings for the finishing of products composed of previously manufactured component parts; and any manufacturing, storage, or distribution of products unlikely to cause any of the following objectionable impacts to be detected off-site: odor, noise, fumes or dispersion of waste, or radiation.

Light pollution – Outdoor lighting that is directed or reflected to the sky.

Light trespass – Unwanted light from a neighboring property.

Liquefaction – A phenomenon in which saturated, cohesionless soil experiences a temporary loss of strength due to the buildup of excess pore water pressure, especially during cyclic loading such as that induced by earthquakes. Soil most susceptible to liquefaction is loose, clean, saturated, uniformly graded, fine-grained sand and silt of low plasticity that is relatively free of clay.

Listed species – Any species of fish, wildlife, or plant that has been determined to be endangered or threatened under the Endangered Species Act.

Long-term debt – See permanent debt.

Lower plateau – See Public Health Service Hospital (PHSH) district.

Market rate – The rental amount that a comparable unit would command if offered in the competitive market.

Market rent – See market rate.

Maximum load point – The location along a bus route at which the highest level of ridership typically occurs.

Migratory species – Species that move substantial distances to satisfy one or more biological needs, most often to reproduce or escape intolerable cyclic environmental conditions.

Mitigation – A method or measure that, if implemented, would lessen the intensity of an impact on a particular resource.

Modal split – The proportion of trips made by various travel modes, including automobile, transit, bicycle, foot, and other modes.

Moment magnitude – An energy-based scale that provides a physically meaningful measure of the size of a faulting event. Moment magnitude is directly related to average slip and fault rupture area.

Mutual aid – Reciprocal assistance by different jurisdictions (e.g., local, state, federal) of emergency services under a prearranged plan.

National Environmental Policy Act (NEPA) – Federal legislation enacted in 1969 that establishes the environmental policy that federal entities must take environmental considerations into account in making decisions about federal policies, plans, programs, and projects.

National Historic Landmark (NHL) – A nationally significant historic place designated by the Secretary of the Interior because it possesses exceptional value or quality in illustrating or interpreting the heritage of the United States. The Presidio was designated an NHL District (NHLD) in 1962.

National Historic Preservation Act (NHPA) – The basic legislation of the national historic preservation program that established the Advisory Council on Historic Preservation and the Section 106 review process.

Native plant communities – A group of plants growing together, comprised primarily of plants that are native and that were most likely found on that particular site prior to European settlement.

NEPA process – The objective analysis of a proposed action to determine the significance of its environmental impacts on the human environment; consideration of alternatives and mitigation to reduce potential impacts; and presentation of the analysis to the interested and affected public for review and comment. NEPA process may also be referred to generally as environmental review.

Net Operating Income (NOI) – Income from property or business after operating expenses have been deducted, but before deducting income taxes and financing expenses (interest and principal payments).

Net present value – The current value of a future cash flow stream that typically begins with a cash outflow (or cost) followed by a series of cash inflows. A method of determining whether expected performance of a proposed investment promises to be adequate.

Nike Swale – See Public Health Service Hospital (PHSH) district and Swale.

Nitrogen oxides (NO_x) – Gases formed in great part from atmospheric nitrogen and oxygen and oxygen when combustion takes place under conditions of high temperature and high pressure. NO_x is a criteria air pollutant.

No action alternative – Under the NEPA, a benchmark against which action alternatives are compared.

Noise – Unwanted sound.

Non-native plants – Plant species that have been introduced (or have invaded through natural dispersal from a site where they were introduced) and did not occur on that site prior to European settlement. Even though a plant grows as a native species in a nearby location, if habitat for that species does not occur on the site and if it did not occur there as part of a native plant community, it is considered to be non-native. (For example, coast redwood occurs naturally within the Bay Area, but it is considered non-native to the Presidio.)

Park – A term used interchangeably with the “Presidio” in this document.

Period of significance – A defined period of time during which a property established its historical association, meaning, or value.

Permanent debt – A mortgage that usually exceeds five years. Also known as long-term debt.

Person trip – A trip to or from the project made by one person in any mode of transportation: automobile, bus, transit, walking, or bicycle.

Private development partner(s) – A private organization or group of organizations that are responsible over an extended period of time for bringing about the comprehensive redevelopment of an entire project site.

Public Health Service Hospital (PHSH) district – One of seven planning districts within the Presidio as established under the PTMP. The PHSH district contains approximately 400,000 square feet of buildings, including the PHSH (Building 1801) and nearby dormitories, offices, residences, and recreational buildings. The southern, more developed portion of the 42-acre district is sometimes referred to as the “lower plateau” and its collection of buildings as the “PHSH complex.” The northern portion of the district or “upper plateau” includes the previously disturbed “Battery Caulfield” (or “Nike Missile”) site and remnant natural habitats, including the “Nike Swale” area.

Predicted noise level(s) – Future noise levels, resulting from predictable natural and mechanical sources and human activity including the project.

Presidio Trust – A federal government corporation created by Congress in 1996 to preserve and enhance the Presidio, a national park site, in cooperation with the NPS. As mandated by the Presidio Trust Act (16 USC §§ 460bb appendix, as amended), the Trust must manage the park to become financially self-sufficient by 2013. The Trust has authority to lease property in order to generate revenues needed to operate the park and undertake capital improvements.

Presidio Trust Act – The act that establishes the Presidio Trust as a federal government corporation and authorizes the Trust to manage a majority of the Presidio’s land area in accordance with the terms of the Act.

Presidio Trust Management Plan – The Presidio Trust’s comprehensive plan adopted in August 2002 that guides future management and implementation of projects within Area B of the Presidio. The PTMP was developed with broad public involvement.

Programmatic Agreement – A document that records the terms and conditions that have been agreed upon to resolve the adverse effects of an undertaking upon historic properties.

Quail Commons – A 1.5-acre habitat restoration site located between the southern row of West Washington Boulevard housing and Battery Caulfield that serves as a nesting area and winter covey feeding area for the California quail.

Receptors – Locations selected for determining noise or air quality impacts. These locations represent areas where frequent human use occurs, or is likely to occur in the foreseeable future.

Record of Decision (ROD) – A written public record identifying a selected course of action and explaining why the lead agency has chosen a particular course of action.

Recovery Plan – A public document prepared by the USFWS that outlines tasks necessary to stabilize and recover listed species. Recovery plans include goals for measuring species progress toward recovery, estimated costs and time frames for the recovery process, and an identification of public and private partners that can contribute to implementation of the recovery plan.

Recycled water – The reclamation and reuse of wastewater for beneficial use.

Recycling – The process of collecting, sorting, cleansing, treating, and reconstituting materials that would otherwise become solid waste, and returning them to the economic mainstream in the form of raw material for new, reused, or reconstituted products that meet the quality standards necessary to be used in the marketplace.

Rehabilitation – The act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features that convey the property's historical, cultural, or architectural values.

Remedial Action Plan (RAP) – A written public record identifying a cleanup plan for a site contaminated with hazardous substances and explaining why the agency has chosen the particular cleanup plan.

Remediation – Cleanup of a site to levels determined to be health-protective for its intended use.

Replacement construction – Construction of new buildings that are intended to replace specific buildings that have been or will be demolished.

Request for Qualifications (RFQ) / Request for Proposals (RFP) selection process – A competitive leasing process with a defined set of selection criteria and stated time period generally consisting of an RFQ, RFP, and negotiation. The Trust is using this process for the PHSB to identify a qualified private development partner with whom to negotiate the terms and configuration of a final project and to implement the project.

Rescission – A law enacted by Congress that takes back previously appropriated federal funds.

Response time – The time that begins when emergency response vehicles are en route to an emergency incident and ends when these vehicles arrive at the scene.

Revenues – The total income produced or generated by a given source. At the Presidio, these revenue sources include non-residential and residential buildings (building leases and ground leases), government appropriations, Treasury borrowing, utilities and telecommunications revenues, parking fees, permit and salvage operations, special events, and other miscellaneous parkwide revenues.

Scope – The types of actions to be included in a project, the range of alternatives, and the impacts to be considered.

Scoping – The process by which an agency solicits input from the public and interested agencies on the nature and extent of issues, impacts, and alternatives to be addressed in an environmental review document under the NEPA.

Section 7 – The section of the Endangered Species Act that outlines procedures for interagency consultation to conserve federally listed species and designated critical habitats.

Section 106 – The section of the NHPA that requires federal agencies to consider the effects of their actions on historic properties and seek comments from an independent reviewing agency, the Advisory Council on Historic Preservation. The purpose of Section 106 is to avoid unnecessary harm to historic properties.

Section 110 – The section of the NHPA that sets out the broad historic preservation responsibilities of federal agencies to ensure that historic preservation is fully integrated into ongoing programs.

Seismically-induced densification – A phenomenon in which non-saturated, cohesionless soil is compacted by earthquake vibrations, causing differential settlement.

Self-sufficiency – The requirement, mandated by Congress, that the Trust generate sufficient revenues at the Presidio to support Area B operations without continuing federal appropriations, beginning in Fiscal Year 2013 and every year thereafter. Self-sufficiency has both a short-term and long-term aspect. See also Financial sustainability.

Service District Charge (SDC) – A fee comprised of a tenant's pro rata share of service district costs for each fiscal year typically calculated as a dollar amount per square foot or simply a total amount.

Service district costs – A pass-through of a portion of Presidio operating expenses (e.g., police, fire, road and other infrastructure maintenance) that are not directly associated with revenue-generating buildings. Tenants are charged a pro rata portion of such costs based on the relationship of the space leased to the total Presidio square footage of non-residential buildings.

Solid waste – Garbage, refuse, sludge, or other discarded material, including solids, semisolids, liquids, and contained gaseous materials.

Special-status species – Plants and animals with limited numbers or distribution that have special legal and policy protection. They are protected under federal and state Endangered Species Acts or other regulation, or are sufficiently rare to either be candidates or under consideration for such designation.

State Historic Preservation Officer (SHPO) – The official in each state who (among other duties) consults with federal agencies during Section 106 review. The SHPO administers the national historic preservation program at the state level, reviews National Register nominations, and maintains file data on

historic properties that have been identified but not yet nominated. Agencies seek the views of the appropriate SHPO(s) while identifying historic properties and assessing effects of an undertaking on historic properties.

State Implementation Plan – U.S. EPA-approved state plans for attaining and maintaining federal air quality standards.

Storm water – Storm water runoff and surface runoff and drainage.

Storm Water Pollution Prevention Plan – A set of protocols developed and implemented to address specific storm water discharge concerns, and often developed for construction sites.

Surface water – Water that naturally flows or settles on top of natural landforms and vegetation, often as freshwater rivers, streams, and lakes.

Sustainability – A concept that recognizes that development should meet the needs of the present without compromising the ability of future generations to meet their own needs.

Sustainable design – Design that applies the principles of ecology, economics, and ethics to the business of creating necessary and appropriate places for people to visit, live, and work. Development that has been sustainably designed sits lightly upon the land, demonstrates resource efficiency, and promotes ecological restoration and integrity, thus improving the environment, the economy, and society.

Swale – A low point in natural topography, which often provides a point of collection and infiltration for ground and surface water flows, as in the Nike Swale.

Threatened species – Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Threshold of hearing – The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.

Tiering – The coverage of general matters in broad EISs with subsequent narrower EISs or EAs incorporating by reference the general discussions and concentrating solely on the issues specific to the subsequent project-specific action.

Toxic Air Contaminant (TAC) – An air pollutant, identified in regulation by the California Air Resources Board, that could cause or contribute to an increase in deaths or in serious illness, or could pose a present or potential hazard to human health. TACs are considered under a different regulatory process (California Health and Safety Code § 39650 et seq.) from pollutants subject to California Ambient Air Quality Standards. Health effects due to TACs can occur at extremely low levels. It is typically difficult to identify levels of exposure that do not produce adverse health effects.

Traffic Impact Study (TIS) – A Caltrans-required analysis of traffic impacts generated by local development and land use change proposals that affect state highway facilities.

Transportation Demand Management (TDM) – Strategies designed to maximize the people-moving capability of the transportation system by increasing the number of persons in a vehicle, or by influencing

the mode of, time of, or need to, travel. To accomplish these types of changes, TDM programs must rely on incentives or disincentives to make these shifts in behavior attractive.

Trip generation rate – A rate or number that expresses the number of person trips that would be generated by a unit (e.g., square foot or dwelling unit) of a given land use type.

Triple net lease – A lease that requires the tenant to pay, in addition to rent, all property and operating expenses (e.g., insurance, utilities, repairs, maintenance, and janitorial). Also known as NNN lease.

Undertaking – Under the NHPA, a federal activity that is subject to Section 106 requirements. The term is intended to include any project, activity, or program, and any of its elements, that has the potential to have an effect on an historic property and that is under the direct or indirect jurisdiction of a federal agency or is licensed or assisted by a federal agency.

Unleveraged Internal Rate of Return (IRR) – The true annual rate of earning on an investment assuming capital used has no cost such as interest payments. Expressed in percentage terms, IRR equates to the value of cash returns with cash invested.

Upper plateau – See Public Health Service Hospital (PHSH) district.

Vacancy allowance – In a pro forma income statement, an estimate derived from a projected vacancy rate and deducted from potential gross income to derive effective gross income.

Vehicle trip – A trip to or from the project made by a transportation vehicle, primarily automobile. Equal to the number of person trips made by automobile divided by the average numbers of persons per automobile.

Viewshed – The geographic area from which a site is visible; a collection of viewpoints.

Visitor carrying capacity – The type and level of visitor use that can be accommodated while sustaining the desired resource and visitor experience conditions.

Visitor experience – The perceptions, feelings, and reactions a person has while visiting a park.

Waste stream – Waste material output of a community, region, or state.

Watershed – An area of land that drains or sheds its rainwater and springs into a body of water such as a stream or lake.

Weighted average – An average that takes into account the proportional relevance of each component, rather than treating each component equally.

Wetlands – Those areas that are inundated by surface or ground water with a frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds.

Index

- adaptive uses, 55, 149, 151, 153, 154
- adverse effect, 18, 23, 24, 25, 26, 27, 28, 29, 149, 157, 230, 252, 266
- Advisory Council on Historic Preservation, 148, 152, 153, 154, 157, 160, 265, 266
- affordable housing, 78, 83
- air quality, 163–70
 - ambient air quality standards, 20, 21, 163, 164, 166, 167, 169
 - basic control measures, 165, 169, 170
 - Bay Area Air Quality Management District, 163, 164, 165, 167, 168, 169, 170, 274
 - California Air Resources Board, 163, 165, 167
 - Clean Air Plan, 163, 164, 169, 170
 - conditions and monitoring, 164
 - cumulative effects, 169
 - estimated average weekday emissions from vehicle trips and area sources, 167
 - general conformity, 164, 169
 - impacts on, 165–69
 - management, 56, 60, 63, 67, 165
 - mitigation measures, 170
 - receptors, 164
 - State Implementation Plan, 163, 164, 169
 - transportation control measures, 163, 170
- alternatives, 43–79
 - 1994 GMPA EIS alternatives, 72
 - 210 dwelling units with the Trust as developer, 75
 - Alternative 1 - PTMP Alternative, 52–56
 - Alternative 2 - Infill Alternative, 57–60
 - Alternative 3 - No Infill Alternative, 61–63
 - Alternative 4 - Battery Caulfield Alternative, 64–67
 - alternatives suggested pre-1989, 71, 75
 - demolition of building 1801, 73
 - minimal development on lower plateau, 74
 - no development at Battery Caulfield/, 74
 - offices for USPP, FBI, IRS, or Secret Service/Department of Labor job training center, 76
 - one-hundred-percent senior housing alternative, 76
 - Other Alternatives, 68–76
 - Park Presidio Boulevard Access Variant, 68
 - Preferred Alternative, 8, 76, 77, 262, 264
 - Preferred Alternative, 76–79
 - professional office complex or commercial retail center, 75
 - PTMP EIS alternatives, 72
 - related activities common to all alternatives, 44, 45
 - Requested No Action Alternative, 50–52
 - reuse as a hospital, 73
 - supportive housing, 100-percent affordable housing, or other, 75
- Americans with Disabilities Act. *See* historic resources; code compliance

- archaeological resources, 158–63
 - Archaeological Management Assessment and Monitoring Program, 161, 162, 163
 - burials, 159
 - cumulative effects, 161
 - curation of archaeological collections, 162
 - discoveries, 158, 160, 161, 162, 282
 - excavation permits and archaeological review, 162
 - impacts on, 160–61
 - known and predicted archaeological features, 159
 - mitigation measures, 161–63
 - treatment of discoveries, 163
- Area A, 34, 45, 93, 163, 192, 263, 274
- Area B, 1, 34, 35, 72, 93, 148, 192, 193, 197, 200, 201, 237, 257, 264, 280
- Arion Press, 44, 50, 56, 59, 63, 64, 67, 81, 85, 87, 89, 90, 91, 95, 124, 192, 193, 194, 195
- assisted living units, 7, 212
- Baker Beach Apartments. *See* Wherry Housing
- best management practices, 204, 205, 214, 229, 230, 254
- bikeways. *See* transportation, pedestrians and bicycles
- biological resources, 232–55
 - Biological Opinion, 267
 - buffers, 38, 48, 55, 59, 66, 92, 126, 170, 176, 179, 188, 252, 253
 - California quail, 2, 44, 48, 232, 235, 238, 241, 242, 243, 245, 247, 250, 252, 254, 255
 - protection of, 32, 255
 - cumulative effects, 250
 - existing biological habitats and resources, 232
 - fencing, 244, 255
 - impacts on, 243–51
 - native and special-status wildlife, 245, 246, 248, 250
 - native plant communities, 243, 245, 247, 248
 - special-status plants, 244, 246, 247, 249
 - invasive plants, 48, 59, 66, 214, 244, 251, 252
 - migratory species, 240
 - mitigation measures, 251–55
 - pet disturbance and wildlife, 32, 231, 244, 245, 248, 251, 254, 255
 - protection of special-status species,, 252
 - Quail Commons, 173, 178, 193, 194, 195, 238, 241, 242, 245, 250, 255
 - raptors, 240, 253
 - San Francisco lessingia, 2, 39, 42, 48, 232, 235, 236, 237, 244, 251, 267
 - special-status species
 - bats, 238, 239, 241, 252, 254
 - plants, 2, 31, 33, 39, 42, 48, 235, 236, 237, 243, 244, 245, 246, 247, 249, 250, 251, 252, 277
 - wildlife, 32, 237, 238, 243, 245, 246, 247, 248, 250, 252
 - species of local concern, 241, 242
 - U.S. Fish and Wildlife Service Final Recovery Plan, 251, 282
 - wildlife movement corridors, 245, 250, 255

building deterioration, 36, 38, 51, 78, 111, 134, 146, 150, 158, 184, 201, 217, 258, 264

California Department of Toxic Substances Control, 45, 272

Caltrans, 7, 13, 14, 15, 29, 44, 68, 95, 105, 106, 111, 114, 115, 116, 119, 136, 138, 142, 143, 144, 148, 167, 219, 229, 262, 264, 265, 267, 269, 275

Central Green, 59, 64, 66, 146, 154, 179, 181, 188, 189

City and County of San Francisco, 5, 25, 71, 75, 82, 87, 115, 117, 131, 137, 138, 139, 140, 141, 142, 143, 144, 148, 175, 177, 197, 198, 199, 201, 202, 203, 204, 208, 209, 211, 213, 214, 217, 221, 231, 262, 263, 267, 268, 269, 273, 276, 277, 281

condominiums, 259

Congress, 34, 40

contaminants, 45, 47, 164, 165, 170, 215, 223, 225, 227, 229, 252, 275

Council on Environmental Quality, 9, 52, 263

employment, 9, 20, 23, 83, 85, 86, 87, 92, 97, 100, 106, 114, 116, 122, 136, 137, 138, 139, 140, 141, 174, 175, 176

endangered plants. *See* biology; special-status species

energy, 42, 51, 56, 60, 63, 67, 167, 171, 172, 173, 174, 203, 206, 209, 210, 212, 213, 215

environmental building design, 215

environmental impact statement, rationale for, 4

environmental remediation, 38, 45, 47, 48, 50, 51, 55, 59, 61, 66, 132, 134, 139, 140, 142, 151, 152, 153, 154, 157, 159, 169, 177, 184, 225, 226, 243, 244, 246, 247, 248, 249

environmental review process, 4, 5, 43, 48, 93, 101, 105, 106, 109, 161, 170, 178, 191, 196, 197, 214, 230, 251, 257, 258, 260, 263, 267, 276

existing tenants. *See* Arion Press, Lone Mountain Children's Center

financial considerations, 1, 5, 6, 33, 34, 35, 39, 40, 41, 52, 56, 60, 63, 67, 73, 75, 76, 77, 78, 258, 259, 279, 281

Financial Management Program, 39, 40

Forest City Development, 258, 260

Fort Point and Presidio Historical Association, 148, 151, 152, 153, 155, 265, 266, 269, 274

General Management Plan Amendment, 34, 35, 72, 196

geology and soils, 216–20

- cumulative effects, 219
- damage to PHS in the event of a moderate to major earthquake, 217
- earthquakes, 29, 216, 217, 218, 219
- geotechnical report, 29, 219
- impacts due to seismic hazards, 217–19
- major active faults, 216
- mitigation measures, 219–20
- seismic analysis of PHS, 217
- settlement, 145, 217

- stability of the fill slope within Battery Caulfield, 29, 219
- Golden Gate Bridge, 68, 98, 100, 122, 124, 127, 134, 146, 148, 155, 179, 262, 272
- groundwater, 30, 47, 217, 221, 223, 225, 226, 227, 229, 231, 235, 249
- historic resources, 145–58
 - adverse effect, 18, 23, 24, 25, 26, 27, 28, 29, 149, 157, 230, 252, 266
 - Area of Potential Effects, 149, 265, 266
 - character-defining features, 55, 57, 61, 64, 149, 157
 - code compliance, 10, 157, 206
 - compliance with standards for building and cultural landscape rehabilitation, 158
 - consultation process, 148, 157, 266
 - contributing buildings and structures, 146
 - cultural landscapes, 36, 148, 149, 153, 155, 157, 266
 - cumulative effects, 157
 - historic buildings, 1, 2, 4, 7, 18, 19, 26, 34, 35, 36, 39, 41, 55, 57, 61, 64, 72, 76, 78, 79, 81, 85, 145, 149, 150, 154, 157, 161, 179, 188, 207, 208, 210, 212, 218, 258, 259
 - historic forest, 33, 39, 40, 87, 89, 90, 91, 158, 179
 - historic use of PHSH, 81, 95
 - history of the PHSH district, 145
 - impacts on, 149–57
 - long-term maintenance and preservation of vacant buildings, 157
 - mitigation measures, 157–58
 - monitoring of visitor impacts on sensitive resources, 158
 - ongoing identification of historic properties, 158
 - Presidio National Historic Landmark District, 1, 33, 35, 36, 38, 41, 42, 44, 72, 73, 79, 145, 146, 148, 149, 157, 159, 160, 162, 257, 258, 264, 265
 - Secretary of the Interior’s Standards, 151, 152, 153, 154, 157, 158, 279
- Hotalling Tunnel. *See* archaeological resources; known and predicted archaeological features
- hydrology, wetlands, and water quality, 220–32
 - cumulative effects, 229
 - erosion, 205, 219, 225, 226, 231, 232, 235, 253
 - groundwater hydrology, 223
 - groundwater infiltration, 223
 - hydrocarbon contamination, 223
 - hydrologic connection between Battery Caulfield and the Nike Swale, 221
 - impacts on, 226–29
 - mitigation measures, 230–32
 - pervious surfaces, 220
 - protection of hydrologic functioning of the Nike Swale wetlands, 230, 231
 - runoff, 25, 30, 47, 48, 199, 203, 204, 205, 208, 210, 211, 213, 214, 220, 221, 223, 225, 226, 227, 228, 229, 230, 231, 232, 235, 249
 - storm water drainage system upgrades, 205, 214, 231
 - storm water reduction, 205, 214, 231, 232
 - surface features, 220
 - surface hydrology, 221
 - water quality, 30, 45, 79, 92, 197, 205, 208, 210, 211, 214, 220, 223, 225, 226, 227, 228, 229, 230, 231, 232, 271, 272, 282
 - water resources best management practices, 230

wetlands, 30, 92, 220, 225, 227, 230, 231, 232, 271, 276, 279

interagency coordination, 263

interpretation, 192, 193, 194, 195

land use, housing, and schools, 81–93

- collaboration with San Francisco Unified School District, 84, 88, 89, 90, 92, 93
- cumulative effects, 92
- existing and projected future school enrollment, 84
- existing land uses, 81, 226
- existing Presidio housing supply and occupancy, 83
- housing policies and projected future demand for housing, 83
- impacts on, 85–92
- jobs-housing balance, 79, 93, 106
- mitigation measures, 93
- projected future land uses, 82
- School Impact Aid Program, 84, 88, 89, 90, 92, 93

landfills, 38, 45, 47, 48, 50, 59, 132, 134, 139, 140, 142, 151, 152, 153, 154, 157, 159, 169, 177, 184, 199, 203, 205, 208, 212, 213, 217, 218, 220, 221, 223, 225, 226, 228, 231, 236, 243, 244, 245, 246, 247, 248, 249, 277, 279, 282

lead agency, 266

leasing, 1, 5, 7, 8, 10, 34, 35, 39, 40, 41, 43, 52, 56, 60, 64, 68, 71, 72, 73, 75, 76, 77, 78, 83, 149, 255, 257, 258, 259, 266

Letterman Digital Arts Ltd., 34, 35, 100, 205

lighting, 23, 32, 71, 82, 155, 184, 185, 188, 191, 215, 218, 225, 230, 245, 247, 248, 250, 254

Lobos Creek, 48, 49, 51, 55, 59, 63, 66, 82, 102, 129, 159, 173, 184, 191, 192, 197, 198, 204, 214, 220, 221, 223, 225, 226, 228, 231, 232, 235, 236, 237, 242, 243, 244, 245, 263, 280, 282

Lone Mountain Children’s Center, 44, 50, 56, 59, 63, 64, 67, 81, 85, 87, 89, 90, 91, 95, 124, 173

Marine Hospital Cemetery, 44, 47, 49, 151, 152, 153, 155, 159, 173, 175, 178, 192, 193, 194, 195, 221, 257, 278

monitoring, 10, 47, 48, 50, 93, 128, 129, 143, 161, 162, 164, 167, 172, 174, 204, 219, 223, 231, 251, 252

mothball, 18, 150, 158

Mountain Lake, 25, 30, 36, 38, 48, 49, 51, 55, 59, 63, 66, 71, 82, 100, 126, 129, 145, 155, 159, 173, 184, 191, 192, 194, 196, 204, 213, 214, 220, 221, 223, 229, 231, 232, 273

Mountain Lake Park, 36, 38, 71, 126, 191, 194, 273

National Academy of Public Administration, 40, 279

National Environmental Policy Act, 4, 7, 8, 9, 43, 48, 52, 76, 257, 258, 260, 261, 263, 264, 265, 270

National Historic Landmark District, 1, 33, 35, 36, 38, 41, 42, 44, 72, 73, 79, 145, 146, 148, 149, 157, 159, 160, 162, 257, 258, 264, 265

National Historic Preservation Act, 36, 44, 148, 150, 158, 265

national park, 1, 34, 35, 38, 39, 81, 157

National Park Service, 34, 35, 36, 45, 47, 48, 49, 67, 72, 82, 83, 88, 89, 90, 92, 93, 109, 145, 148, 149, 151, 152, 153, 154, 155, 157, 158, 160, 163, 191, 192, 193, 194, 195, 196, 200, 201, 223, 225, 232, 235, 252, 263, 264, 265, 266, 268, 279, 282

National Register, 145, 146, 148, 151, 160, 162, 163

Nike Missile site, 2, 44, 47, 49, 81, 82, 146, 151, 152, 153, 155, 179, 217, 221, 279

Nike Swale, 2, 30, 44, 47, 48, 172, 173, 178, 192, 193, 194, 195, 197, 220, 221, 223, 225, 226, 227, 228, 229, 230, 231, 232, 235, 240, 241, 242, 244, 245, 249, 250, 253, 254, 255

noise, 171–78

- abatement criteria, 22, 171, 172, 174, 175, 177
- ambient noise, 171
- construction noise, 22, 32, 171, 177, 248
- control regulations and programs, 171
- cumulative effects, 177
- existing noise conditions, 172
- mitigation measures, 178
- natural soundscapes, 178
- noise effects, 173–77
- noise impacts on wildlife, 174, 176
- noise-sensitive areas, 173
- receptors, 172, 175
- San Francisco Noise Ordinance, 171, 178
- traffic noise reduction, 178

Oceanside Water Pollution Control Plant. *See* wastewater treatment and disposal

open space, 33, 35, 36, 41, 44, 52, 55, 59, 61, 66, 72, 73, 74, 79, 83, 87, 89, 90, 92, 146, 184, 185, 188, 191, 193, 194, 195, 243, 246, 248, 250

Pacific Gas and Electric Company, 199, 200, 203, 205, 206, 268, 269

park visitors. *See* visitor use

pedestrians and bicycles. *See* bicycle and pedestrian conditions

philanthropy, 34

Planning and Design Guidelines, 44, 57, 145, 148, 152, 153, 154, 258, 265, 280

preferred alternative, 4, 8, 10, 76, 77, 260, 262, 264

Presidio Golf Course, 51, 55, 82, 102, 146, 179, 192, 232, 235, 236, 242, 244

Presidio Trails and Bikeways Master Plan, 48, 50, 51, 55, 59, 67, 102, 126, 129, 130, 131, 144, 157, 184, 192, 193, 196, 279

Presidio Trust Act, 1, 5, 33, 34, 39, 41, 72, 151, 152, 153, 155, 157, 196, 263, 264

Presidio Vegetation Management Plan, 48, 59, 66, 83, 279

Programmatic Agreement, 148, 149, 152, 153, 154, 158, 160, 161, 162, 163, 264, 265, 266, 274, 275, 276, 277, 278, 283

public access, 51, 61, 78, 79

public amenities, 51, 55, 63

public comments, 1, 4, 5, 6, 9, 43, 45, 72, 96, 110, 115, 143, 148, 158, 232, 257, 258, 259, 260, 261, 263, 264, 265, 266, 267

public health and safety, 1, 35, 38, 50, 78, 219

Record of Decision, 1, 2, 9, 10, 73, 82

recreational opportunities, 52, 59, 66, 74, 87, 89, 90, 106, 144, 172, 178, 254

recycling, 51, 175, 176, 198, 199, 203, 205, 208, 210, 213, 214, 215, 223, 268, 276

Request for Proposals, 41, 73, 258

Request for Qualifications, 41, 73, 257, 258

residential neighborhood, 1, 5, 6, 9, 11, 45, 59, 66, 78, 87, 88, 90, 91, 96, 102, 105, 122, 124, 125, 135, 136, 140, 141, 142, 172, 174, 175, 176, 177, 184, 258, 259, 260, 261, 267

revenues, 1, 5, 6, 34, 35, 39, 40, 41, 42, 52, 56, 60, 64, 68, 74, 75, 76, 77, 84, 264

Richmond District, 87, 88, 90, 91, 122, 126, 175, 198, 199, 201, 221, 225, 262, 263, 267, 268, 269, 273, 274, 276

scoping, 4, 71, 75, 76, 148, 257, 258, 259, 260, 261, 264, 265, 266, 267

senior housing, 7, 12, 16, 17, 64, 68, 76, 78, 84, 86, 105, 106, 120, 125, 131, 134, 177, 212

Southwest Ocean Outfall. *See* wastewater treatment and disposal

State Historic Preservation Officer, 148, 149, 152, 153, 154, 157, 160, 162, 163, 263, 265, 266, 269, 272, 280

stewardship, 34, 48, 193, 243, 244

sustainability, 1, 33, 39, 41, 42, 51, 56, 60, 63, 67, 79, 197, 205, 208, 210, 212, 213

Tennessee Hollow, 39

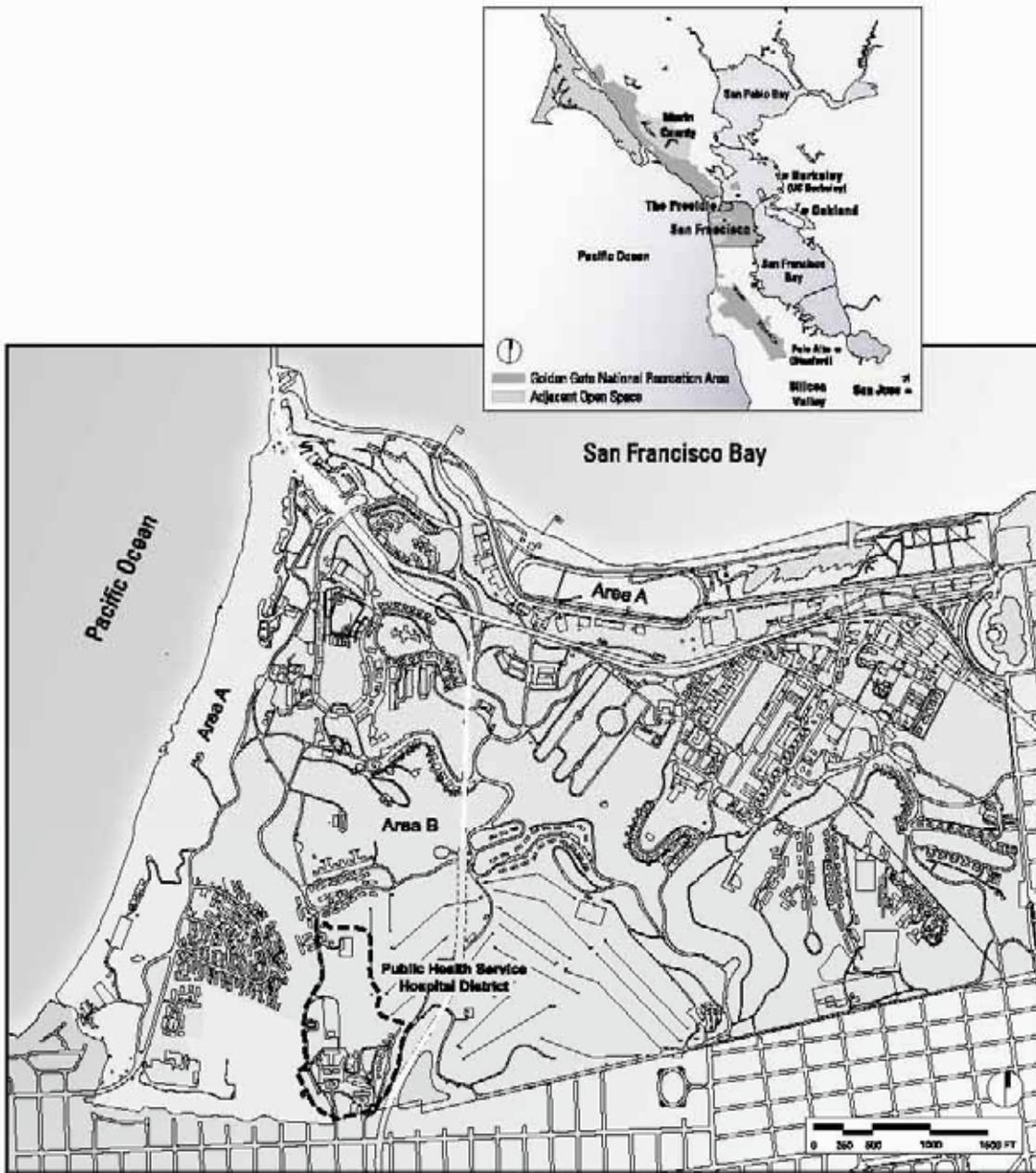
trails, 38, 49, 51, 59, 66, 71, 126, 133, 134, 151, 152, 153, 154, 155, 157, 179, 192, 193, 194, 195, 196, 201, 243, 244, 246, 247, 248, 254

transportation, 93–145

- cumulative effects, 136–42
- cut through traffic, 38, 55, 68, 122, 252
- existing plus project analysis, 110
- existing traffic conditions at nearby intersections, 96
- gate volumes, 122
- historical and existing traffic volumes, 95
- impacts on, 105–42
 - construction traffic, 134
 - gate volumes and cut through traffic, 122
 - parking, 131
 - pedestrians and bicycles, 129
 - safety considerations, 125
 - traffic at local intersections, 109
- mode splits, 17, 50, 105, 106, 107, 108, 109, 126, 129, 131
- parking, 1, 17, 38, 41, 44, 47, 48, 49, 50, 51, 55, 56, 59, 60, 61, 63, 66, 67, 75, 76, 78, 82, 87, 89, 90, 92, 93, 95, 102, 105, 126, 131, 132, 133, 134, 135, 144, 149, 151, 152, 153, 154, 159,

- 160, 168, 170, 172, 176, 179, 184, 185, 188, 191, 193, 205, 216, 220, 221, 223, 225, 226, 227, 228, 231, 236, 243, 246, 248
- pedestrians and bicycles, 33, 38, 39, 49, 51, 55, 96, 100, 102, 109, 114, 125, 126, 129, 130, 137, 138, 139, 140, 142, 191, 192, 193, 194, 195, 196
- projected future traffic conditions, 97
- traffic at local intersections, 109
- traffic-calming techniques. *See* cut-through traffic
- transit, 16, 33, 41, 49, 50, 78, 93, 98, 99, 100, 101, 106, 108, 109, 126, 127, 128, 129, 133, 136, 137, 138, 139, 140, 141, 143, 178, 269, 277
- transportation demand management, 20, 49, 50, 105, 143, 164, 167, 168, 169, 170
- travel demand, 105, 126, 129, 283
- U.S. Army, 34, 36, 38, 44, 45, 47, 50, 71, 74, 81, 87, 89, 90, 91, 145, 146, 159, 184, 194, 195, 196, 217, 276, 278, 279, 282
- U.S. Environmental Protection Agency, 163, 165, 168, 169, 170, 199, 261, 266
- U.S. Fish and Wildlife Service, 48, 232, 235, 236, 237, 244, 251, 255, 267, 276, 280, 282
- U.S. Public Health Service, 47, 145, 159
- underground parking, 19, 20, 59, 60, 78, 135, 136, 160, 168, 185, 218, 227, 228, 231
- utilities and services, 197–216
 - annual utility demands, 202
 - cumulative effects, 213
 - electrical system, 200, 203, 206, 208, 210, 212
 - energy conservation, 205, 215
 - expansion of public safety services, 207, 209, 211, 212, 215
 - fire protection and emergency response, 27, 200, 201, 203, 206, 209, 210, 212, 213, 216
 - gas system, 199, 203, 205, 206, 208, 210, 212
 - impacts on, 202–13
 - law enforcement, 28, 201, 203, 207, 209, 211, 213
 - mitigation measures, 214–16
 - mutual aid agreements, 201
 - Presidio Fire Department, 4, 200, 201, 203, 207, 209, 212, 213, 215, 269, 279
 - replacement of utility lines and potential inconvenience to neighbors, 26, 205, 206, 208, 209, 210, 212
 - response times, 5, 27, 200, 201, 215
 - San Francisco Fire Department, 201, 216, 276
 - San Francisco Police Department, 201, 276
 - solid waste, 26, 199, 202, 203, 205, 208, 210, 212, 275
 - storm drainage, 198, 202, 204, 208, 209, 211
 - storm water reduction, 205, 214, 231, 232
 - U.S. Park Police, 28, 38, 201, 207, 209, 211, 213, 215
 - waste reduction and recycling, 51, 198, 199, 203, 205, 208, 210, 214
 - wastewater treatment and disposal, 198, 202, 204, 208, 209, 211
 - water conservation best management practices, 214
 - water recycling, 198, 213
- vacant buildings, 1, 7, 29, 35, 38, 43, 50, 51, 52, 78, 81, 82, 83, 85, 105, 134, 150, 158, 184, 193, 194, 195, 201, 203, 217, 243
- vandalism, 7, 28, 36, 38, 50, 51, 78, 150, 184, 201, 207, 209, 211, 213

- visitor use, 192–97
 - cumulative effects, 196
 - existing and planned facilities, services, and programs in the PSHH district, 192
 - existing Presidio-wide facilities, services and programs, 192
 - impacts on, 193–96
 - management controls, 197
 - mitigation measures, 196–97
 - prohibitions on visitor use, 196
 - visitor management, 197, 230
- visual resources, 179–91
 - characteristics, 179
 - cumulative effects, 191
 - impacts on, 184–91
 - important views, 179, 183
 - mitigation measures, 191
 - scenic overlooks, 38, 49, 157, 184, 191, 192, 193, 194, 195
 - scenic views, 33, 36, 59, 66, 146, 179, 184, 185, 188, 191
 - unsightly areas, 179
- Wherry Housing, 4, 87, 88, 90, 91, 102, 129, 200, 201, 215, 250
- Wyman Avenue residences, 25, 36, 52, 55, 57, 59, 61, 64, 66, 68, 72, 85, 86, 88, 100, 146, 148, 150, 155, 173, 174, 179, 184, 193, 204, 229



Source: Presidio Trust, 2006



The Presidio Trust
 34 Graham Street, P.O. Box 29052
 San Francisco, CA 94129
 (t) 415 / 561-4183 (f) 415 / 561-2716
www.presidio.gov