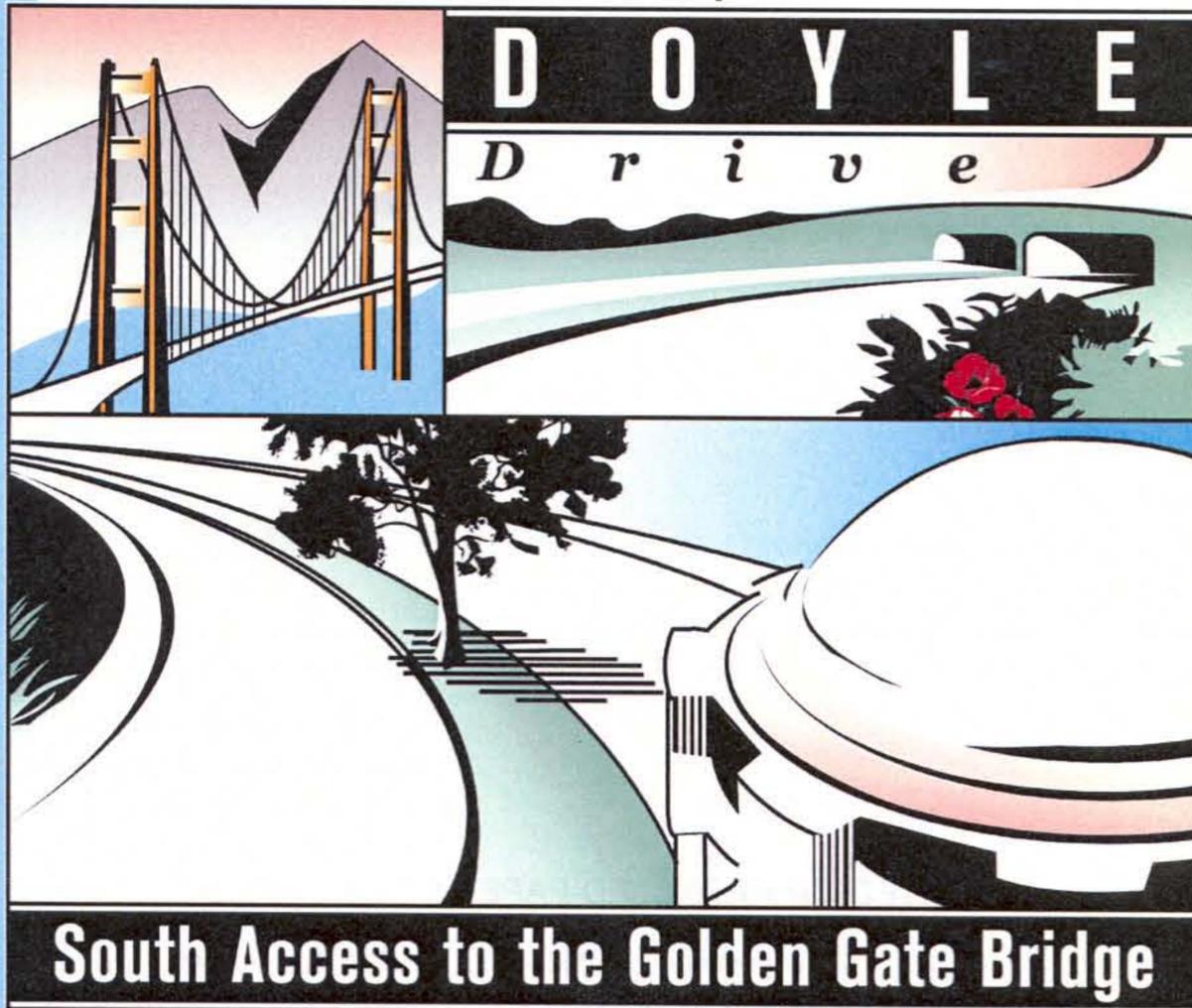


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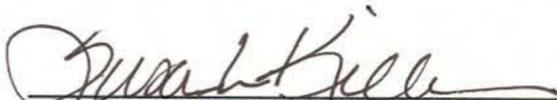
# FINAL COMMUNITY IMPACT ASSESSMENT

Revised August 2005

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## EXECUTIVE SUMMARY

### INTRODUCTION

This report presents the results of the Community Impact Assessment (CIA) conducted for the South Access to the Golden Gate Bridge - Doyle Drive Project (Doyle Drive Project). The Community Impact Assessment is one of several technical reports prepared in support of the Draft Environmental Impact Statement/Draft Environmental Impact Report (DEIS/DEIR). The information from this report will be summarized in the DEIS/DEIR. This report presents the existing community and land use conditions in the Doyle Drive Project study area, the potential construction-related (temporary) and operational-related (long-term) impacts on the community and its neighborhoods, California Environmental Quality Act of 1970 (CEQA) significance and cumulative impacts.

Doyle Drive is located in the Presidio of San Francisco (the Presidio), in the northern part of the City of San Francisco at the southern approach to the Golden Gate Bridge (see Figure 1-1). Doyle Drive has six lanes and extends from the Golden Gate Bridge through the Presidio to its termination at Lyon Street and Marina Boulevard, a length of 2.4 kilometers (1.5 miles). Doyle Drive is over 70 years old and it is approaching the end of its useful life, although regular maintenance, seismic retrofit, and partial rehabilitation activities are keeping the structure safe in the short term. The Presidio has been designated a National Historic Landmark District (NHLD) since 1962 with the Doyle Drive roadway determined to be a contributing element to that landmark.

### PROJECT PURPOSE AND ALTERNATIVES DESCRIPTION

The purpose of the South Access to the Golden Gate Bridge - Doyle Drive Project is to replace Doyle Drive in order to improve the seismic, structural, and traffic safety of the roadway within the setting and context of the Presidio of San Francisco and its purpose as a National Park.

Three alternatives were selected for analysis in the Doyle Drive Project DEIS/DEIR. As shown in Figure 1-1, the project limits are from Merchant Road, just south of the Golden Gate Bridge Toll Plaza, to the intersection of Richardson Avenue/Francisco Street and Marina Boulevard/Lyon Street. The alternatives and their general characteristics are described below. Detailed drawings showing the plan and profile of each alternative in addition to the various design options can be found in Appendix A.

**Alternative 1: No-Build Alternative.** The No-Build Alternative represents the future year conditions if no other actions are taken in the study area beyond what is already programmed by the year 2020. It is the baseline condition and future travel conditions against which all other alternatives are compared. Doyle Drive would remain in its current configuration (i.e., “No-Build”): 2.4 kilometers (1.5 miles) long with six traffic lanes ranging in width from 2.9 to three meters (9.5 to ten feet) wide (see Figure 1-2). No fixed median barriers or shoulders currently existing on Doyle Drive, and the roadway passes through the Presidio on one high steel truss viaduct and one low elevated concrete viaduct with lengths of 463 meters (1,519 feet) and 1,137 meters (3,730 feet), respectively. The height of the high-viaduct varies from twenty to 35 meters (66 to 115 feet) above the ground surface while the low viaduct has an average of eight meters (26 feet) above existing ground surface.

**Alternative 2: Replace and Widen Alternative.** The Replace and Widen Alternative would replace the 463-meter (1,519-foot) high-viaduct and the 1,137-meter (3,730-foot) low-viaduct with wider structures that meet the most current seismic and structural design standards (see Figure 1-3). The new facility would be replaced on the existing alignment and widened to incorporate improvements for increased traffic safety. This alternative would include either six 3.6-meter (12-foot) lanes and a 3.6-meter (12-foot) eastbound auxiliary lane with a fixed median barrier or six 3.6-meter (12-foot) lanes with a moveable median barrier. The new facility would have an overall width of 38.0 meters (124 feet). Both options would include continuous 3.0-meter shoulders along the facility.. This alternative includes two options for the construction

staging: a No Detour Option - the widened portion of the new facility would be constructed on both sides and above the existing low-viaduct and would maintain traffic on the existing structure during construction, or a Detour Option - a detour facility would be constructed to the north of existing Doyle Drive to maintain traffic through the construction period. Vehicular access to the Presidio is available from Doyle Drive via the on-and off-ramps to Merchant Road at the Golden Gate Bridge Toll Plaza. Presidio access at the east end of the project will be provided for southbound traffic via a right turn from Richardson Avenue to Gorgas Avenue. There would be no Presidio access for northbound traffic at the east end of Doyle Drive due to geometric constraints and concerns for traffic safety.

**Alternative 5: Presidio Parkway Alternative.** The Presidio Parkway Alternative would replace the existing facility with a new six-lane facility and an eastbound auxiliary lane, between the Park Presidio interchange and the new Presidio access at Girard Road. (See Figure 1-4) The new facility would consist of two 3.3-meter (11 foot) lanes and one 3.6-meter (12 foot) outside lane in each direction with 3.0-meter outside shoulders and 1.2-meter inside shoulders. In addition, a 3.3-meter (11 foot) auxiliary lane runs along southbound Doyle Drive from the Park Presidio Interchange to the Girard Road exit ramp. The width of the proposed landscaped median varies from 5.0 meters (16 feet) to 12.5 meters (41 feet). To minimize impacts to the park, the footprint of the new facility would include a large portion of the existing facility's footprint east of the Park Presidio interchange.

A 450-meter (1,476-foot) long high-viaduct would be constructed between the Park Presidio interchange and the San Francisco National Cemetery. The height of the high-viaduct would vary from twenty to 35 meters (66 to 115 feet) above the ground surface. Shallow cut-and-cover tunnels would extend 240 meters (787 feet) past the cemetery to east of Battery Blaney. The facility would then continue towards the Main Post in an open depressed roadway with a wide heavily landscaped median.

From Building 106 (Band Barracks) cut-and-cover tunnels up to 310 meters long (984 feet) would extend to east of Halleck Street. The facility would then rise slightly on a low level causeway 160 meters (525 feet) long over the site of the proposed Tennessee Hollow restoration and a depressed Girard Road. The low causeway would rise to approximately four meters (13 feet) above the surrounding ground surface at its highest point. East of Girard Road the facility would return to existing grade north of the Gorgas warehouses and connect to Richardson Avenue.

The Presidio Parkway Alternative would include an underground parking facility up to four meters (12 feet) deep at the eastern end of the alignment between the Mason Street warehouses and Gorgas Street warehouses. The parking garage would supply approximately 500 spaces to maintain the existing parking supply in the area and improve pedestrian and vehicular access between the Presidio and the Palace of Fine Arts.

Merchant Road Option - At the intersection with Merchant Road, just east of the toll plaza, a design option has been developed for a Merchant Road slip ramp. This option would provide an additional new connection from westbound Doyle Drive to Merchant Road. This ramp would provide direct access to the Golden Gate Visitors' Center and alleviate the congested weaving section where northbound Park Presidio Boulevard merges into Doyle Drive.

The Park Presidio interchange would be reconfigured due to the realignment of Doyle Drive to the south. The exit ramp from eastbound Doyle Drive to southbound Park Presidio Boulevard would be replaced with standard exit ramp geometry and widened to two lanes. The loop of the westbound Doyle Drive exit ramp to southbound Park Presidio Boulevard would be improved to provide standard exit ramp geometry. The northbound Park Presidio Boulevard connection to westbound Doyle Drive would be realigned to provide standard entrance ramp geometry. There are two options for the northbound Park Presidio Boulevard ramp to an eastbound Doyle Drive connection:

- Loop Ramp Option - Replace the existing ramp with a loop ramp to the left to reduce construction close to the Cavalry Stables and provide standard entrance and exit ramp geometry.

- Hook Ramp Option - Rebuild the ramp with a similar configuration as the existing directional ramp with a curve to the right and improved exit and entrance geometry.

The Presidio Parkway Alternative includes two options for direct access to the Presidio and Marina Boulevard at the eastern end of the project:

- Diamond Option – The Diamond option would provide direct access to the Presidio and indirect access to Marina Boulevard in both directions via access ramps from Doyle Drive connecting to an extension of Girard Road. East of the new Letterman garage, Gorgas Avenue is a one-way street and connects to Richardson Avenue with access to Palace Drive via a signalized intersection at Lyon Street.
- Circle Drive Option – This option would provide direct access to the Presidio and indirect access to Marina Boulevard for eastbound traffic via access ramps connecting to an extension of Girard Road. Westbound traffic from Richardson Avenue would access the Presidio through a jug handle intersection to Gorgas Avenue.

## IMPACT ANALYSIS

The analysis of community impacts involved reviewing impacts of the Doyle Drive Project alternatives in the study area neighborhoods in relation to traffic, transit, bicycle/pedestrian facilities, noise, visual, environmental justice, employment, and community facilities and public services on both a temporary and long-term basis.

The impacts of the Doyle Drive Project alternatives on existing and planned land uses include an analysis of the temporary and permanent removal of buildings, an analysis of the impacts to parking, and an analysis of the impacts to the land uses of the various planning areas in the Presidio in addition to the surrounding areas. Table ES-1 presents a comparative summary of impacts by project alternative.

The estimated construction period is between four to five years for all build alternatives. During the construction period there would be a disruption of normal activities within the Presidio resulting from the introduction of construction noise, a change in the visual setting, and movement of equipment and materials. All construction activities are expected to comply with the Caltrans Standard Specifications and provisions of the City of San Francisco noise ordinance in order to minimize construction disturbance and control noise, dust, vibration, and traffic within the Presidio and to neighboring residents. Although the visitor experience to the Presidio would be degraded during the construction period due to the sights and sounds of construction, visitors and those working in the Presidio would still have full access and use of the facilities at the park. Construction noise is not expected to hinder the use of any operating facilities or buildings. Implementation of various noise control measures including use of mufflers and shields on equipment would minimize the effects of construction noise. Long-term traffic noise levels are expected to be similar to existing levels, regardless of the alternative selected.

In compliance with environmental justice policies and Executive Order No. 12898, any disproportionate impacts to minority and low-income populations must be determined or identified and effective mitigation measures must be proposed and provided. The Doyle Drive Project is not expected to result in disproportionate impacts to the minority and low-income populations in the local study area or in the region. Based on 2000 U.S. Census data, the existing racial composition in the Presidio and adjacent neighborhoods is, on average, approximately 69 percent White, 24 percent Asian, 5 percent Hispanic, 2 percent African American, and 5.5 percent are American Indians, Alaska Natives, Native Hawaiian and Pacific Islanders or persons of two or more races. This information indicates that the census tract study area does not have a predominately minority population.

Poverty status was used to identify populations as low-income. For the census tracts within the study area, the percent of individuals below the poverty level ranges from 3.3 percent to 17.3 percent. On average, the percent of persons below the poverty level was 6.8 percent. Because the study area does not have a majority (more than 50 percent) of individuals living at or below the poverty level, the study area does not

contain higher than average concentrations low-income groups and therefore these groups are not located within areas that could be subject to disproportionate impacts.

It is anticipated that certain components of the utility system in the Presidio would need to be relocated as part of the Doyle Drive Project. In general, all alternatives, except the No-Build Alternative, would require utility relocation, but it is expected that there would be no significant impacts to the utility systems, as continuous service would be maintained during construction. Overall, the utility relocations would also improve and upgrade the existing utility system and include provision for additional equipment backup capabilities.

All of the project build alternatives would result in the temporary and/or permanent displacement of property in the study area. Displacements have been estimated using preliminary alignment drawings. These displacements involve a number of different land uses, including office, infrastructure, warehouse, institution, retail, industrial, and recreational.

Direct property acquisition would require implementation of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended and the Civil Rights Act of 1964, providing for relocation assistance services to homeowners and renters affected. In addition, the Act requires that residential and commercial property owners be paid fair market value of any property acquired as a result of the project.

During construction, the Replace and Widen Alternative - Detour Option would require the removal of four Mason Street Warehouses (Buildings 1182 – 1185) in order to accommodate the temporary detour for the Marina connector ramp. These buildings could either be temporarily or permanently removed. The Presidio Parkway Alternative would require the temporary closure of Building 106 during construction.

The Replace and Widen Alternative – No Detour Option would permanently remove one non-historic structure (Building 1158), while four non-historic structures (Buildings 605 and 606 [Post Exchange] and 610/653 [Commissary]) would be removed with the Detour Option. The Presidio Parkway Alternative would remove up to 10 buildings depending on the design option used for the east end of the roadway. Nine structures (Buildings 201, 204, 205, 230, 231, 670, 605, 606, and 1158) would be permanently removed with the Diamond Option. The Circle Drive Option would also require the removal of Building 1151. The addition of the Merchant Road slip-ramp design option would require the removal of an additional four residential structures (Buildings 1253 – 1256). The Presidio Trust would be compensated for both the permanent and temporary loss of buildings acquired as part of the right-of-way process.

Construction of either the Replace and Widen Alternative or the Presidio Parkway Alternative would require both temporary and long-term removal of parking spaces. The Replace and Widen Alternative – No Detour Option would result in an unmet deficiency over No-Build conditions of 473 spaces temporarily and one space in the long-term while the Detour Option would result in a deficiency of 156 spaces temporarily and 20 in the long-term. The Presidio Parkway Alternative would result in a deficiency of 768 spaces temporarily and 134 in the long-term. Both construction period and permanent parking shortfalls would generally be addressed through the use of surplus parking in adjacent areas and through the overall management of parking within the Presidio, although replacement parking may be required under temporary conditions. The location and extent of the available parking supply during construction activities should be updated periodically.

The temporary disruptions and long-term affect of the implementation of a new Doyle Drive would not alter the existing land use of the Presidio or hinder the planned future uses for each planning area outlined in the PTMP.

The Doyle Drive Project would require local approvals affecting land use if construction work is contemplated on the portion of the study area outside of Federal property. These include encroachment permits and authorization for any sidewalk or roadway changes within the City of San Francisco jurisdiction. Consistency with Article 20 of the Public Works code would be required since there is the potential for hazardous materials being transported through/on San Francisco streets. A finding of General Plan Conformity for the

Doyle Drive Project by the San Francisco Planning Department and Planning Commission is also required. The Palace of Fine Arts, located on the edge of the Presidio and within the Doyle Drive Project study area is a designated City Landmark (Number 88) subject to the requirements of Article 10 of the San Francisco Planning Code. The Palace of Fine Arts is considered eligible for the National Register of Historic Places, and it is currently under review by the Keeper of the National Register for this listing. A finding of General Plan Conformity for the Doyle Drive Project by the San Francisco Planning Department and Planning Commission is also required.

## **CUMULATIVE IMPACTS**

Both the National Environmental Policy Act of 1969 (NEPA) and CEQA require a project to analyze cumulative impacts in addition to direct and indirect impacts. The cumulative impacts analysis considers the potential for the project, in combination with other projects in the Presidio and City of San Francisco, to have impacts on the physical environment of the Presidio and surrounding area.

During the construction period of the Doyle Drive Project there is the potential for temporary cumulative impacts related to traffic, bike/pedestrian facilities, and visual impacts to occur if other nearby construction activities are simultaneously occurring. For example, other projects that are simultaneously occurring could result in a cumulative effect of increased traffic delay in terms of access into the City. The potential for increased delay and congestion would depend on the timing of construction activities associated with each project, the amount of traffic diversion from these facilities to Doyle Drive, and measures that would be implemented to eliminate or reduce potential impacts such as public awareness campaigns and increased transit service.

In addition, it is likely that various bicycle and pedestrian routes would be temporarily closed or detoured during the project construction period. If other projects also require the closure or detour of bicycle and pedestrian facilities, a cumulative impact would occur. Once completed, however, a new Doyle Drive would not contribute to cumulative impacts to bicycle and pedestrian facilities as existing routes would be maintained.

When combined with other future projects that the Presidio Trust could undertake to meet the desired goals and objectives of the PTMP, which could require temporary and/or permanent building removal, the removal of buildings associated with the Doyle Drive Project alternatives would contribute to a cumulative impact on the number of structures available within the Presidio. The buildings temporarily removed and returned and permanently removed by the Doyle Drive Project alternatives are noted in Table ES-1. The resulting reduction in number of buildings would limit the space available for implementation of specific land uses within certain areas of the Presidio, primarily the Crissy Field and Main Post planning areas. Overall land use patterns within these specific planning areas of the Presidio are not likely to be affected by the removal of these buildings. However, if any additional buildings in these planning areas are removed by other future projects, the ability of these planning areas to achieve the desired build-out may be jeopardized, resulting in a cumulative impact.

With the exception of the permanent building removal, there would be no long-term cumulative impacts associated with traffic, parking, bike/pedestrian facilities, and socioeconomics as a result of the Doyle Drive Project in combination with other projects within the study area.

**TABLE ES-1  
COMPARATIVE SUMMARY OF IMPACTS**

Elements Addressed	Alternative 1 No-Build	Alternative 2 Replace and Widen – No Detour Option	Alternative 2 Replace and Widen – Detour Option	Alternative 5 Presidio Parkway Diamond Option	Alternative 5 Presidio Parkway Circle Drive Option	Alternative 5 Presidio Parkway with the Merchant Road Slip Ramp Option <sup>1</sup>
<b>Community</b>						
<b>Traffic</b>	<ul style="list-style-type: none"> <li>◆ Long-term impacts: No improvement to traffic safety</li> <li>◆ Potential traffic restrictions due to load limits on the high-viaduct forcing trucks and buses to use alternate routes to and from the North Bay.</li> <li>◆ Potential collapse of low-viaduct structure in a major seismic event.</li> <li>◆ Delays would continue at Marina Blvd./Divisadero St. and Marina Blvd./Broderick St. on weekdays, adversely affecting operations on Marina Blvd.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Temporary impacts: large diversion of traffic to roadway under the Toll Plaza</li> <li>◆ Long-term impacts: Delays would increase slightly at Marina Blvd./Divisadero St. and Marina Blvd./Broderick St. on weekdays, adversely affecting operations on Marina Blvd. during commute hours (LOS F).</li> <li>◆ Signalized Lyon/Lombard Gate intersection would continue to operate at LOS F during AM peak.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Temporary impacts: large diversion of traffic to roadway under the Toll Plaza</li> <li>◆ Long-term impacts: Delays would increase slightly at Marina Blvd./Divisadero St. and Marina Blvd./Broderick St. on weekdays, adversely affecting operations on Marina Blvd. during commute hours (LOS F).</li> <li>◆ Signalized Lyon/Lombard Gate intersection would continue to operate at LOS F during AM peak.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Temporary impacts: large diversion of traffic to roadway under the Toll Plaza</li> <li>◆ Long-term impacts: During the weekday AM peak hour, traffic operations at Marina Blvd./Divisadero St. and Marina Blvd./Broderick St would improve to LOS D. During the PM peak hour, delay would improve slightly while operations remained at LOS F. Operations would improve on weekends to LOS A and B.</li> <li>◆ The vehicle queue on the southbound Richardson/Francisco approach would be extended by ten meters (33 feet) over No-Build conditions.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Temporary impacts: large diversion of traffic to roadway under the Toll Plaza</li> <li>◆ Long-term impacts: During the weekday AM peak hour, traffic operations at Marina Blvd./Divisadero St. and Marina Blvd./Broderick St would improve to LOS D. During the PM peak hour, delay would improve slightly while operations remained at LOS F. Operations would improve on weekends to LOS A and B.</li> <li>◆ The vehicle queue on the southbound Richardson/Francisco approach would be extended by ten meters (33 feet) over No-Build conditions.</li> </ul>	Similar to Diamond and Circle Drive options

<sup>1</sup> The Merchant Road slip ramp option could be used as an additional design feature with either the Diamond Option or Circle Drive Option. The impacts associated with the Merchant Road slip ramp option would be in addition to the impacts of the Diamond Option or Circle Drive Option.

Elements Addressed	Alternative 1 No-Build	Alternative 2 Replace and Widen – No Detour Option	Alternative 2 Replace and Widen – Detour Option	Alternative 5 Presidio Parkway Diamond Option	Alternative 5 Presidio Parkway Circle Drive Option	Alternative 5 Presidio Parkway with the Merchant Road Slip Ramp Option <sup>1</sup>
	during commute hours (LOS F). ♦Signalized Lyon/Lombard Gate intersection would operate at LOS F during AM peak.					
<b>Transit</b>	No impact	No impact	No impact	No impact	No impact	No impact
<b>Bike/Pedestrian Access</b>	No impact	Potential nighttime closures of some roadways and trails	Potential nighttime closures of some roadways and trails	♦Access would be closed along Bank Street and Halleck Street during various phases of construction.  Bicycle and pedestrian access across the Doyle Drive corridor would be maintained via Marshall Street, Crook Street, McDowell Avenue/Crissy Field Avenue, at the Lincoln Boulevard/Park Presidio Interchange, and at the Lincoln Boulevard/Golden Gate Bridge Toll Plaza	♦Access would be closed along Bank Street and Halleck Street during various phases of construction.  Bicycle and pedestrian access across the Doyle Drive corridor would be maintained via Marshall Street, Crook Street, McDowell Avenue /Crissy Field Avenue, at the Lincoln Boulevard/Park Presidio Interchange, and at the Lincoln Boulevard/Golden Gate Bridge Toll Plaza	Similar to Diamond and Circle Drive options
<b>Noise</b>	29 of 35 receptor sites approach or exceed NAC	♦20 of 35 receptor sites would approach or exceed NAC from construction period traffic ♦Residences along	♦20 of 35 receptor sites would approach or exceed NAC from construction period traffic ♦Residences along	♦23 of 35 receptor sites would approach or exceed NAC from construction period traffic ♦Residences along Richardson Avenue	♦22 of 35 receptor sites would approach or exceed NAC from construction period traffic ♦Residences along Richardson Avenue	♦Construction period impacts would be similar to either Diamond or Circle Drive options ♦Long-term noise levels similar to

Elements Addressed	Alternative 1 No-Build	Alternative 2 Replace and Widen – No Detour Option	Alternative 2 Replace and Widen – Detour Option	Alternative 5 Presidio Parkway Diamond Option	Alternative 5 Presidio Parkway Circle Drive Option	Alternative 5 Presidio Parkway with the Merchant Road Slip Ramp Option <sup>1</sup>
		<p>Richardson Avenue and Marina Boulevard could be exposed to construction noise in excess of 89 dBA during construction</p> <ul style="list-style-type: none"> <li>◆ Long-term noise levels similar to existing levels – 30 of 35 receptor sites approach or exceed NAC</li> <li>◆ Long-term impacts are location specific and generally include the residential areas along Storey Avenue, Battery areas, residential and commercial uses along Richardson Avenue</li> </ul>	<p>Richardson Avenue and Marina Boulevard could be exposed to construction noise in excess of 89 dBA during construction</p> <ul style="list-style-type: none"> <li>◆ Long-term noise levels similar to existing levels – 30 of 35 receptor sites approach or exceed NAC</li> <li>◆ Long-term impacts are location specific and generally include the residential areas along Storey Avenue, Battery areas, residential and commercial uses along Richardson Avenue</li> </ul>	<p>and Marina Boulevard could be exposed to construction noise in excess of 89 dBA during construction</p> <ul style="list-style-type: none"> <li>◆ Long-term noise levels similar to existing levels – 25 of 35 receptor sites approach or exceed NAC</li> <li>◆ Long-term impacts are location specific and generally include the residential areas along Storey Avenue, Battery areas, residential and commercial uses along Richardson Avenue</li> </ul>	<p>and Marina Boulevard could be exposed to construction noise in excess of 89 dBA during construction</p> <ul style="list-style-type: none"> <li>◆ Long-term noise levels similar to existing levels – 24 of 35 receptor sites approach or exceed NAC</li> <li>◆ Long-term impacts are location specific and generally include the residential areas along Storey Avenue, Battery areas, residential and commercial uses along Richardson Avenue</li> </ul>	<p>existing levels – 28 of 35 receptor sites approach or exceed NAC</p> <ul style="list-style-type: none"> <li>◆ Long-term impacts are location specific and generally include the residential areas along Storey Avenue and Armistead Road, Battery areas, residential and commercial uses along Richardson Avenue</li> </ul>
<b>Visual</b>	No impact	<ul style="list-style-type: none"> <li>◆ Temporary impacts: signs of construction including heavy equipment, landscape removal, grading, and stockpiling of materials would be visually intrusive</li> <li>◆ Long-term impacts: The proposed elevation</li> </ul>	<ul style="list-style-type: none"> <li>◆ Temporary impacts: signs of construction including heavy equipment, landscape removal, grading, and stockpiling of materials would be visually intrusive</li> <li>The Detour structure would disrupt the visual</li> </ul>	<ul style="list-style-type: none"> <li>◆ Temporary impacts: signs of construction including heavy equipment, landscape removal, grading, and stockpiling of materials would be visually intrusive</li> <li>◆ Long-term impacts: For the tunnel portions of the alternative, motorists' existing views of the</li> </ul>	<ul style="list-style-type: none"> <li>◆ Temporary impacts: signs of construction including heavy equipment, landscape removal, grading, and stockpiling of materials would be visually intrusive</li> <li>◆ Long-term impacts: For the tunnel portions of the alternative, motorists' existing views of the</li> </ul>	Similar to Diamond and Circle Drive options

Elements Addressed	Alternative 1 No-Build	Alternative 2 Replace and Widen – No Detour Option	Alternative 2 Replace and Widen – Detour Option	Alternative 5 Presidio Parkway Diamond Option	Alternative 5 Presidio Parkway Circle Drive Option	Alternative 5 Presidio Parkway with the Merchant Road Slip Ramp Option <sup>1</sup>
		<p>of Doyle Drive would place it into view for workers, residents and recreation users in the Main Post area.</p> <p>◆Long-term impacts: The high-viaduct replacement would be removed and reconstructed closer to the Cavalry Stables and Mc Dowell Road viewpoints and would increase Doyle Drive’s visual dominance in this area.</p>	<p>aesthetics of the Presidio and adjacent neighborhoods.</p> <p>◆Long-term impacts: The high-viaduct replacement would be removed and reconstructed closer to the Cavalry Stables and Mc Dowell Road viewpoints and would increase Doyle Drive’s visual dominance in this area.</p>	<p>surrounding landscape would be completely obstructed.</p> <p>The high-viaduct replacement would be removed and reconstructed closer to the Cavalry Stables and Mc Dowell Road viewpoints and would increase Doyle Drive’s visual dominance in this area.</p>	<p>surrounding landscape would be completely obstructed.</p> <p>The high-viaduct replacement would be removed and reconstructed closer to the Cavalry Stables and Mc Dowell Road viewpoints and would increase Doyle Drive’s visual dominance in this area.</p>	
<b>Environmental Justice</b>						
<b>Minority and Low-income Populations</b>	No impact	No impact	No impact	No impact	No impact	No impact
<b>Employment</b>						
<b>Employees Permanently Displaced</b>	0	5	26	38	58	Similar to either Diamond or Circle Drive Option
<b>Construction Labor (Average workers/year)</b>	0	154	173	196	196	Similar to Diamond and Circle Drive options
<b>Community Facilities and Public Services</b>						

Elements Addressed	Alternative 1 No-Build	Alternative 2 Replace and Widen – No Detour Option	Alternative 2 Replace and Widen – Detour Option	Alternative 5 Presidio Parkway Diamond Option	Alternative 5 Presidio Parkway Circle Drive Option	Alternative 5 Presidio Parkway with the Merchant Road Slip Ramp Option <sup>1</sup>
<b>Emergency Services</b>	No impact	<ul style="list-style-type: none"> <li>◆ Temporary impact: delay in response times during construction</li> <li>◆ No long-term impacts</li> </ul>	<ul style="list-style-type: none"> <li>◆ Temporary impact: delay in response times during construction</li> <li>◆ No long-term impacts</li> </ul>	<ul style="list-style-type: none"> <li>◆ Temporary impact: delay in response times during construction</li> <li>◆ No long-term impacts</li> </ul>	<ul style="list-style-type: none"> <li>◆ Temporary impact: delay in response times during construction</li> <li>◆ No long-term impacts</li> </ul>	Similar to Diamond and Circle Drive options
<b>Utilities</b>	No disruption of service	No disruption of service	No disruption of service	No disruption of service	No disruption of service	Similar to Diamond and Circle Drive options
<b>Water System</b>	No impact	2 water mains would be relocated	2 water mains would be relocated	3 water mains would be relocated	3 water mains would be relocated	Similar to Diamond and Circle Drive options
<b>Sewer System</b>	No impact	No impact	No impact	<ul style="list-style-type: none"> <li>◆ No temporary impacts</li> <li>◆ Long-term impacts: Relocation of pump station and force main</li> <li>◆ Relocation of several gravity sewer and mains</li> </ul>	<ul style="list-style-type: none"> <li>◆ No temporary impacts</li> <li>◆ Long-term impacts: Relocation of pump station and force main</li> <li>◆ Relocation of several gravity sewer and mains</li> </ul>	Similar to Diamond and Circle Drive options
<b>Stormwater System</b>	No impact	<ul style="list-style-type: none"> <li>◆ No temporary impacts</li> <li>◆ Long-term impacts: construction of a new stormwater interceptor</li> </ul>	<ul style="list-style-type: none"> <li>◆ No temporary impacts</li> <li>◆ Long-term impacts: construction of a new stormwater interceptor</li> </ul>	<ul style="list-style-type: none"> <li>◆ No temporary impacts</li> <li>◆ Long-term impacts: construction of 2 new stormwater interceptors</li> <li>◆ Construction of a new outlet to the restored Tennessee Hollow</li> </ul>	<ul style="list-style-type: none"> <li>◆ No temporary impacts</li> <li>◆ Long-term impacts: construction of 2 new stormwater interceptors</li> <li>◆ Construction of a new outlet to the restored Tennessee Hollow</li> </ul>	Similar to Diamond and Circle Drive options
<b>Power System</b>	No impact	<ul style="list-style-type: none"> <li>◆ No temporary impacts</li> <li>◆ Long-term impacts: relocation of high voltage</li> </ul>	<ul style="list-style-type: none"> <li>◆ No temporary impacts</li> <li>◆ Long-term impacts: relocation of high voltage</li> </ul>	<ul style="list-style-type: none"> <li>◆ No temporary impacts</li> <li>◆ Long-term impacts: relocation of high voltage power lines</li> </ul>	<ul style="list-style-type: none"> <li>◆ No temporary impacts</li> <li>◆ Long-term impacts: relocation of high voltage power lines</li> </ul>	Similar to Diamond and Circle Drive options

Elements Addressed	Alternative 1 No-Build	Alternative 2 Replace and Widen – No Detour Option	Alternative 2 Replace and Widen – Detour Option	Alternative 5 Presidio Parkway Diamond Option	Alternative 5 Presidio Parkway Circle Drive Option	Alternative 5 Presidio Parkway with the Merchant Road Slip Ramp Option <sup>1</sup>
		power lines and underground transmission lines ◆Relocation of underground power distribution systems and the transmission line serving the Golden Gate Bridge	power lines and underground transmission lines ◆Relocation of underground power distribution systems and the transmission line serving the Golden Gate Bridge	and underground transmission lines ◆Relocation of underground power distribution systems and the transmission line serving the Golden Gate Bridge	and underground transmission lines ◆Relocation of underground power distribution systems and the transmission line serving the Golden Gate Bridge	
<b>Natural Gas System</b>	No impact	◆No temporary impacts ◆Long-term impacts: 2 gas lines would be relocated	◆No temporary impacts ◆Long-term impacts: 2 gas lines would be relocated	◆No temporary impacts ◆Long-term impacts: relocation of compressed natural gas fueling station ◆Relocation of existing distribution system pipelines	◆No temporary impacts ◆Long-term impacts: relocation of compressed natural gas fueling station ◆Relocation of existing distribution system pipelines	Similar to Diamond and Circle Drive options
<b>Telecommunication System</b>	No impact	◆No temporary impacts ◆Long-term impacts: relocation of communications ducts and associated cables	◆No temporary impacts ◆Long-term impacts: relocation of communications ducts and associated cables	◆No temporary impacts ◆Long-term impacts: relocation of communications ducts and associated cables	◆No temporary impacts ◆Long-term impacts: relocation of communications ducts and associated cables	Similar to Diamond and Circle Drive options
<b>Land Use</b>						
<b>Buildings Temporarily Removed and Returned</b>	None	None	Buildings 1182, 1183, 1184, 1185 (The four Mason Street warehouses could be temporarily removed and returned or permanently removed to accommodate the	None	None	Similar to Diamond and Circle Drive options

Elements Addressed	Alternative 1 No-Build	Alternative 2 Replace and Widen – No Detour Option	Alternative 2 Replace and Widen – Detour Option	Alternative 5 Presidio Parkway Diamond Option	Alternative 5 Presidio Parkway Circle Drive Option	Alternative 5 Presidio Parkway with the Merchant Road Slip Ramp Option <sup>1</sup>
			temporary detour structure).			
<b>Buildings Permanently Removed</b>	None	Building 1158	Buildings 605, 606, 610, 653	Buildings 201, 204, 205, 230, 231, 670, 605, 606, 1158	Buildings 201, 204, 205, 230, 231, 670, 605, 606, 1151, 1158	Buildings 1253, 1254, 1255, 1256 in addition to either Diamond or Circle Drive option
<b>Buildings Requiring Closure During Construction</b>	None	None	None	Building 106	Building 106	Similar to Diamond and Circle Drive options
<b>Temporary Parking Deficiency</b>	0 spaces	473 spaces	156 spaces	768 spaces	768 spaces	Similar to Diamond and Circle Drive options
<b>Permanent Parking Deficiency</b>	0 spaces	1 spaces	20 spaces	134 spaces	134 spaces	Similar to Diamond and Circle Drive options
<b>Existing Land Use and Federal Lands</b>	No change to land use	No change to land use	No change to land use	No change to land use	No change to land use	Similar to Diamond and Circle Drive options
<b>Plans and Policies<sup>2</sup></b>						
<b>Final General Management Plan Amendment and Environmental Impact Statement</b>	<ul style="list-style-type: none"> <li>◆Would not redesign Doyle Drive as a parkway</li> <li>◆Would not improve entrance into the Presidio</li> </ul>	<ul style="list-style-type: none"> <li>◆Would not redesign Doyle Drive as a parkway</li> <li>◆Would not improve entrance into the Presidio</li> </ul>	<ul style="list-style-type: none"> <li>◆Would not redesign Doyle Drive as a parkway</li> <li>◆Would not improve entrance into the Presidio</li> </ul>	Consistent	Consistent	Similar to Diamond and Circle Drive options
<b>Presidio Trust Management Plan: Land Use Policies for Area B of the Presidio of San Francisco</b>	<ul style="list-style-type: none"> <li>◆Would not provide opportunities for increased open space</li> <li>◆Would not provide opportunities for implementation</li> </ul>	<ul style="list-style-type: none"> <li>◆Would not provide opportunities for increased open space</li> <li>◆Would not provide opportunities for implementation of auto minimization strategies</li> </ul>	<ul style="list-style-type: none"> <li>◆Would not provide opportunities for increased open space</li> <li>◆Would not provide opportunities for implementation of auto minimization strategies</li> </ul>	<ul style="list-style-type: none"> <li>◆Would be inconsistent with Balanced Use of Building Space due to permanent building removal</li> <li>◆Would be inconsistent with objectives to preserve</li> </ul>	<ul style="list-style-type: none"> <li>◆Would be inconsistent with Balanced Use of Building Space due to permanent building removal</li> <li>◆Would be inconsistent with objectives to preserve</li> </ul>	Similar to Diamond and Circle Drive options

<sup>2</sup> The summary table highlights the inconsistencies of the alternatives with the various plans and policies and unless otherwise noted, the alternatives are generally considered consistent with the plans.

Elements Addressed	Alternative 1 No-Build	Alternative 2 Replace and Widen – No Detour Option	Alternative 2 Replace and Widen – Detour Option	Alternative 5 Presidio Parkway Diamond Option	Alternative 5 Presidio Parkway Circle Drive Option	Alternative 5 Presidio Parkway with the Merchant Road Slip Ramp Option <sup>1</sup>
	<p>of auto minimization strategies</p> <ul style="list-style-type: none"> <li>◆Would not provide an open space connection between Crissy Field and other parts of the park</li> </ul>	<ul style="list-style-type: none"> <li>◆Would not provide an open space connection between Crissy Field and other parts of the park</li> </ul>	<ul style="list-style-type: none"> <li>◆Would not provide an open space connection between Crissy Field and other parts of the park</li> <li>◆Would remove Commissary (Buildings 605 and 606) which is designated for reuse as a museum</li> </ul>	<p>historical resources in the Presidio</p> <ul style="list-style-type: none"> <li>◆Would not provide opportunities for implementation of auto minimization strategies</li> </ul>	<p>historical resources in the Presidio</p> <ul style="list-style-type: none"> <li>◆Would not provide opportunities for implementation of auto minimization strategies</li> </ul>	
<b>Doyle Drive Task Force Report</b>	<ul style="list-style-type: none"> <li>◆Inconsistent since there would be no improvements or changes to existing Doyle Drive</li> </ul>	<ul style="list-style-type: none"> <li>◆Would not redesign Doyle Drive as a parkway</li> <li>◆Would not use tunnels to mitigate adverse impacts</li> <li>◆Would not maximize views for park users or nearby neighborhoods</li> </ul>	<ul style="list-style-type: none"> <li>◆Would not redesign Doyle Drive as a parkway</li> <li>◆Would not use tunnels to mitigate adverse impacts</li> <li>◆Would not maximize views for park users or nearby neighborhoods</li> </ul>	<p>Consistent except views for motorists would not be improved</p>	<p>Consistent except views for motorists would not be improved</p>	<p>Similar to Diamond and Circle Drive options</p>
<b>Letterman Complex Final Environmental Impact Statement</b>	<p>Consistent</p>	<p>Would remove the Richardson Avenue slip ramp which will provide direct access to the Letterman Complex</p>	<p>Would remove the Richardson Avenue slip ramp which will provide direct access to the Letterman Complex</p>	<p>Consistent</p>	<p>Consistent</p>	<p>Similar to Diamond and Circle Drive options</p>
<b>Presidio of San Francisco Vegetation Plan and Environmental Assessment</b>	<ul style="list-style-type: none"> <li>◆Would not increase open space</li> <li>◆Would not provide opportunities for restoration of wildlife habitats</li> </ul>	<ul style="list-style-type: none"> <li>◆Would not increase open space</li> <li>◆Would not provide opportunities for restoration of wildlife habitats</li> <li>◆Would remove approximately 2.8</li> </ul>	<ul style="list-style-type: none"> <li>◆Would not increase open space</li> <li>◆Would not provide opportunities for restoration of wildlife habitats</li> <li>◆Would remove approximately 2.8</li> </ul>	<ul style="list-style-type: none"> <li>◆Would remove approximately 5.3 hectares (13 acres) of tree cover</li> <li>◆Would potentially disturb groundwater at the Battery tunnels</li> </ul>	<ul style="list-style-type: none"> <li>◆Would remove approximately 5.3 hectares (13 acres) of tree cover</li> <li>◆Would potentially disturb groundwater at the Battery tunnels</li> </ul>	<p>Similar to Diamond and Circle Drive options</p>

<b>Elements Addressed</b>	<b>Alternative 1 No-Build</b>	<b>Alternative 2 Replace and Widen – No Detour Option</b>	<b>Alternative 2 Replace and Widen – Detour Option</b>	<b>Alternative 5 Presidio Parkway Diamond Option</b>	<b>Alternative 5 Presidio Parkway Circle Drive Option</b>	<b>Alternative 5 Presidio Parkway with the Merchant Road Slip Ramp Option<sup>1</sup></b>
		hectares (7 acres) of tree cover	hectares (7 acres) of tree cover			
<b>Presidio Trails and Bikeways Master Plan &amp; Environmental Assessment</b>	Consistent	Consistent	Consistent	Consistent	Consistent	Similar to Diamond and Circle Drive options
<b>Environmental Assessment Crissy Field Plan</b>	Consistent	Consistent	Consistent	Consistent	Consistent	Similar to Diamond and Circle Drive options
<b>San Francisco Bay Plan</b>	Would not improve connections to the Presidio and Crissy Field	Would not improve connections to the Presidio and Crissy Field	Would not improve connections to the Presidio and Crissy Field	Consistent	Consistent	Similar to Diamond and Circle Drive options
<b>San Francisco General Plan</b>	Inconsistent with Environmental Protection Element, Recreation and Open Space Element, and Transportation Element	Inconsistent with Environmental Protection Element and Recreation and Open Space Element. Partially inconsistent with the Transportation Element because it does not minimize conflicts with scenic values	Inconsistent with Environmental Protection Element and Recreation and Open Space Element. Partially inconsistent with the Transportation Element because it does not minimize conflicts with scenic values	Inconsistent with policies to preserve landmarks and historic buildings Consistent with Transportation Element	Inconsistent with policies to preserve landmarks and historic buildings Consistent with Transportation Element	Similar to Diamond and Circle Drive options
<b>San Francisco Local Approvals</b>	No local approvals required	No local approvals required	No local approvals required	Would require local approvals	Would require local approvals	Similar to Diamond and Circle Drive options
<b>Future Restored Tennessee Hollow Study</b>	Would not increase shade found under the viaduct. Would not constrain use of Tennessee	Would increase shade under the viaduct by 22 percent. Would not constrain use of Tennessee Hollow as wildlife corridor	Would increase shade under the viaduct by 18 percent. Would not constrain use of Tennessee Hollow as wildlife corridor	Would reduce the amount of full shade under the viaduct by 5 percent but due to low Height:Width ratio, no vegetation would establish. Would not	Would reduce the amount of full shade under the viaduct by 5 percent but due to low Height:Width ratio, no vegetation would establish.	Similar to Diamond and Circle Drive options

<b>Elements Addressed</b>	<b>Alternative 1 No-Build</b>	<b>Alternative 2 Replace and Widen – No Detour Option</b>	<b>Alternative 2 Replace and Widen – Detour Option</b>	<b>Alternative 5 Presidio Parkway Diamond Option</b>	<b>Alternative 5 Presidio Parkway Circle Drive Option</b>	<b>Alternative 5 Presidio Parkway with the Merchant Road Slip Ramp Option<sup>1</sup></b>
	Hollow as wildlife corridor for terrestrial wildlife although some birds would be unlikely to pass through	for terrestrial wildlife although some birds would be unlikely to pass through	for terrestrial wildlife although some birds would be unlikely to pass through	constrain use of Tennessee Hollow as wildlife corridor for terrestrial wildlife although some birds would be unlikely to pass through	Would not constrain use of Tennessee Hollow as wildlife corridor for terrestrial wildlife although some birds would be unlikely to pass through	



## SECTION 1: INTRODUCTION

This report presents results of the Community Impact Assessment (CIA) conducted for the South Access to the Golden Gate Bridge - Doyle Drive Project (Doyle Drive Project). The report addresses social, economic, public services, and land use impacts in the project study area. The findings of the Community Impact Assessment will be incorporated into the environmental document prepared for the Doyle Drive Project, as required to meet National Environmental Policy Act of 1969 (NEPA) and California Environmental Quality Act of 1970 (CEQA) standards.

### 1.1 PROJECT DESCRIPTION

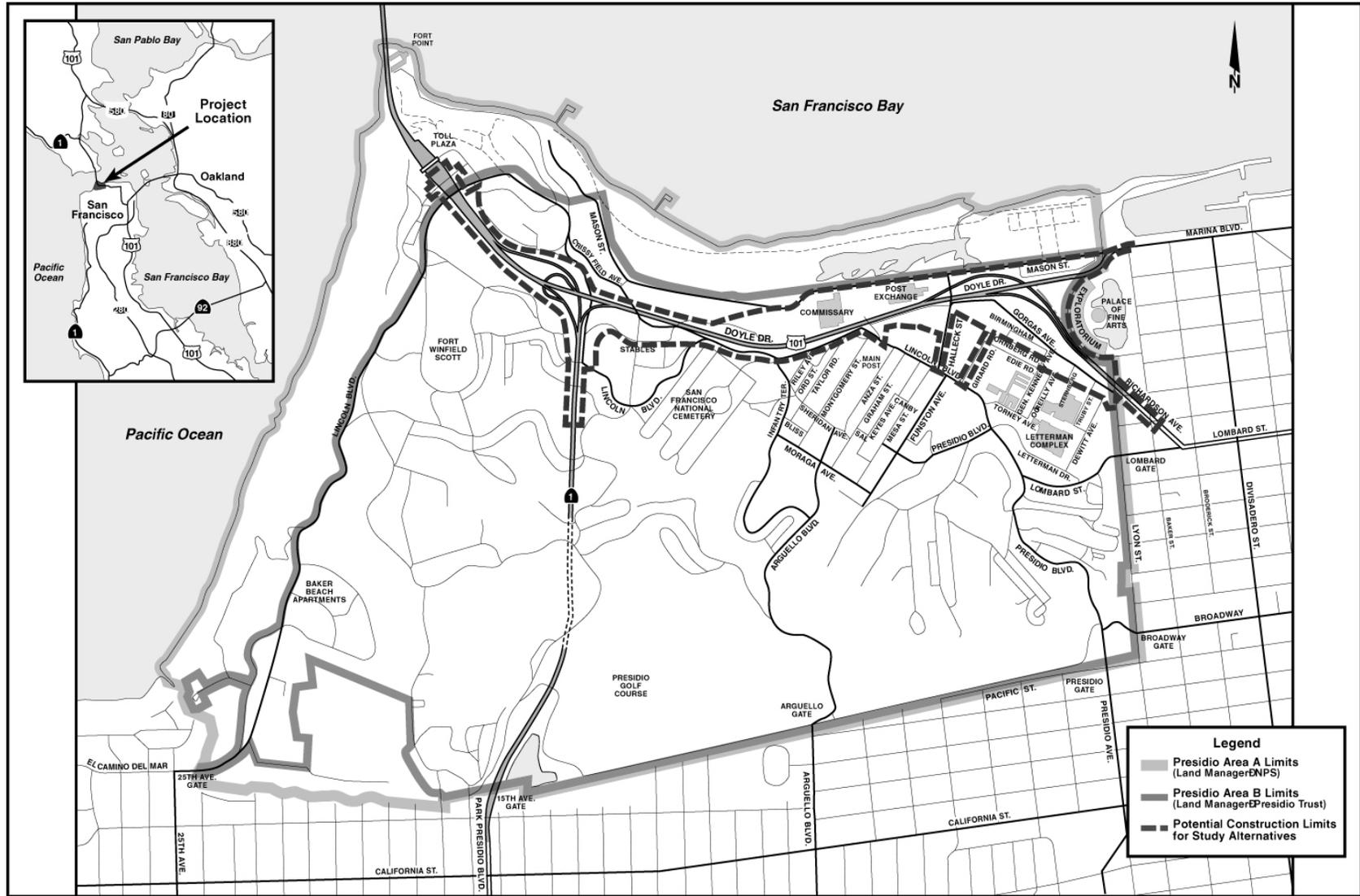
Doyle Drive is located in the Presidio of San Francisco (the Presidio), in the northern part of the City of San Francisco at the southern approach to the Golden Gate Bridge (see Figure 1-1). In 1994, when the U.S. Army transferred jurisdiction of the Presidio to the National Park Service (NPS), it became part of the National Park System and Golden Gate National Recreation Area (GGNRA). In 1998, management of the Presidio was divided between two Federal agencies: The Presidio Trust (the Trust), the agency responsible for oversight of 80 percent of the Presidio delineated as Area B; and the NPS, which is responsible for management of the coastal portions of the park (the remaining 20 percent) that are delineated as Area A. Doyle Drive lies predominately within the Area B lands managed by the Trust with a small portion at the western end located in Area A on land operated by the Golden Gate Bridge, Highway and Transportation District (GGBHTD). The Presidio has also been designated a National Historic Landmark District (NHL) since 1962 with the Doyle Drive roadway determined to be a contributing element to that landmark.

Doyle Drive, the southern approach of U.S. 101 to the Golden Gate Bridge, is 2.4 kilometers (1.5 miles) long with six traffic lanes. There are three San Francisco approach ramps which connect to Doyle Drive: one beginning at the intersection of Marina Boulevard and Lyon Street; one at the intersection of Richardson Avenue and Lyon Street; and one where Park Presidio Boulevard (State Route 1) merges into Doyle Drive approximately 1.6 kilometers (one mile) west of the Marina Boulevard approach (see Figure 1-1). Doyle Drive passes through the Presidio on an elevated concrete viaduct (low-viaduct) and transitions to a high steel truss viaduct (high-viaduct) as it approaches the Golden Gate Bridge Toll Plaza.

Doyle Drive is nearly 70 years old and it is approaching the end of its useful life, although regular maintenance, seismic retrofit, and partial rehabilitation activities are keeping the structure safe in the short term. However, further structural degradation caused by age and the effects of heavy traffic and exposure to salt air will cause the structures to become seismically and structurally unsafe in the coming years. In addition, the eastern portion of the aging facility is located in a potential liquefaction zone identified on the State of California Seismic Hazard Zones map dated August 2000.

Currently, Doyle Drive has nonstandard design elements, including travel lanes from 2.9 to 3.0 meters (9.5 to 10.0 feet) in width, no fixed median barrier, no shoulders and exit ramps that have tight turning radii. During peak traffic hours, plastic pylons are manually moved to provide a median lane as well as to reverse the direction of traffic flow of several lanes (Project Study Report: Doyle Drive Reconstruction, 1993).

**FIGURE 1-1  
PROJECT LOCATION**



### **1.1.1 Project Purpose**

The purpose of the Doyle Drive Project is to replace Doyle Drive in order to improve the seismic, structural, and traffic safety of the roadway within the setting and context of the Presidio of San Francisco and its purpose as a National Park.

### **1.1.2 Alternatives Development**

Scoping meetings were held in San Francisco and San Rafael in March 2000. One of the purposes of scoping was to receive input to identify the broad range of alternatives. Based on past studies, other information collected and analyzed during the project initiation, and scoping comments a range of preliminary alternatives were developed by sponsoring agencies and consultant staff for the Doyle Drive Project. These alternatives represented potential transportation solutions to the need identified in the Doyle Drive corridor. The planning horizon year for the Doyle Drive Project is the year 2030.

The alternatives and options include a range of improvements from no-build to retrofit of the existing facility to the replacement of the facility with new construction between the Park Presidio Interchange and new Presidio access. The build alternatives for the Doyle Drive Project were developed with input from the scoping process and reflect the parkway concept that evolved from previous studies. After the initial screening analysis was conducted and various design options were refined, six alternatives were selected for further consideration. These alternatives included a no-build alternative, an alternative to replace and widen the existing roadway and four tunnel alternatives, including two long tunnel options and two short tunnel options. The six alternatives were analyzed and presented in the Administrative Draft Environmental Impact Statement/Environmental Impact Report (DEIS/DEIR). The Administrative DEIS/DEIR was issued by the San Francisco County Transportation Authority (SFCTA) for review by the Federal Highway Administration (FHWA) and cooperating agencies (The Presidio Trust and the National Park Service) in June 2002.

Subsequent to the review of the Administrative DEIS/DEIR, an additional alternative was brought forward and a feasibility study was conducted. The feasibility study performed by ARUP (Doyle Drive SPUR Alternative Feasibility Study) was completed in October 2003. Based on the results of the feasibility study, the project team determined that the additional alternative, the Presidio Parkway Alternative (Alternative 5), should be added to the list of existing alternatives for more detailed study. The alignment and design features of the Presidio Parkway Alternative conform to the original design scheme presented by Michael Painter. The alternative would create a parkway-like feeling with a wide landscaped median and grade separation of north and southbound lanes. It would preserve key historical and cultural resources and it would preserve as much open space as possible within the Presidio. The shorter tunnel segments would provide significant construction and operational savings versus the long tunnel alternatives. The need for a detour structure would be eliminated by using the existing roadway while the new southbound route is constructed. Overall, the Presidio Parkway Alternative would greatly reduce both the engineering and maintenance costs as well as decrease the environmental impacts within the Presidio.

Upon further review of the Presidio Parkway Alternative and comparisons with the existing alternatives, the project team recommended to the SFCTA the withdrawal of Alternatives 3b, 4a, and 4b from further consideration and detailed analysis in the Doyle Drive DEIS/DEIR in October 2003. In November 2003, the project team recommended to the Doyle Drive Executive Committee that Alternative 3a also be removed from further consideration and analysis in the DEIS/DEIR. The comparison determined that the Presidio Parkway Alternative would provide all the benefits and functions of Alternatives 3a, 3b, 4a, and 4b with less cost, duration and environmental impact.

A public meeting was held in February 2004 to inform the public of the decision to drop Alternatives 3a, 3b, 4a, and 4b while adding the Presidio Parkway Alternative. The meeting presented the reasons for the decision and allowed the public an opportunity to talk with members of the project team about various aspects of the project and provide verbal and written comments. The project team also met with various

neighborhood and stakeholder groups to present the decision to drop Alternatives 3a, 3b, 4a, and 4b and add the Presidio Parkway Alternative.

### **1.1.3 Project Alternatives**

This section describes the build alternatives in terms of physical and operating characteristics and a No-Build Alternative. As shown in Figure 1-1, the project limits are from Merchant Road, just south of the Golden Gate Bridge Toll Plaza, to the intersection of Richardson Avenue/Francisco Street and Marina Boulevard/Lyon Street. During the screening process, all alternatives were evaluated for their ability to meet the project's Purpose and Need. Detailed drawings showing the plan and profile of each alternative in addition to the various design options can be found in Appendix A.

The alternatives being carried forward for further analysis in this document and the DEIS/DEIR include:

- Alternative 1: No-Build Alternative
- Alternative 2: Replace and Widen Alternative
- Alternative 5: Presidio Parkway Alternative

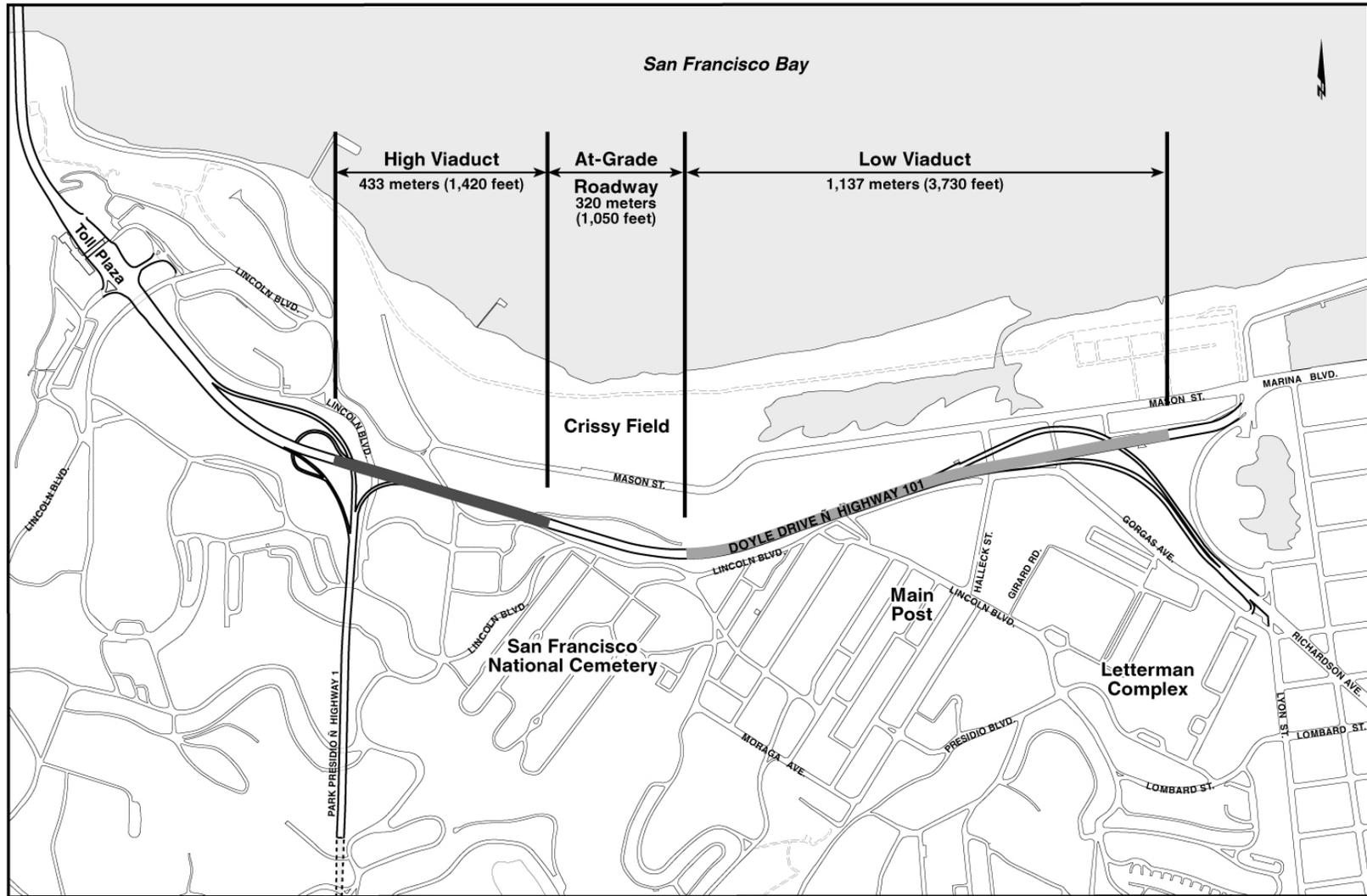
#### **Alternative 1: No-Build Alternative**

The No-Build Alternative represents the future year conditions if no other actions are taken in the study area beyond what is already programmed by the year 2020. It is the baseline condition and future travel conditions against which all other alternatives are compared. Doyle Drive would remain in its current configuration (i.e., "No-Build"): 2.4 kilometers (1.5 miles) long with six traffic lanes ranging in width from 2.9 to three meters (9.5 to ten feet) wide (see Figure 1-2). No fixed median barriers or shoulders currently existing on Doyle Drive, and the roadway passes through the Presidio on one high steel truss viaduct and one low elevated concrete viaduct with lengths of 463 meters (1,519 feet) and 1,137 meters (3,730 feet), respectively. The height of the high-viaduct varies from twenty to 35 meters (66 to 115 feet) above the ground surface while the low viaduct has an average of eight meters (26 feet) above existing ground surface.

Vehicular access to the Presidio is available from Doyle Drive via the off-ramp to Merchant Road at the Golden Gate Bridge Toll Plaza. Presidio access at the east end of the project will be provided for southbound traffic via a right turn from Richardson Avenue to Gorgas Avenue. Presidio access for northbound traffic is provided by a slip ramp from Richardson Avenue to Gorgas Avenue.

This alternative considers those operational and safety improvements that have been planned and programmed to be implemented by the year 2020. This alternative is required of all federal and state planning guidelines. The No-Build Alternative does not improve the seismic, structural, and traffic safety of the roadway.

**FIGURE 1-2**  
**ALTERNATIVE 1: NO-BUILD**



## **Alternative 2: Replace and Widen Alternative**

The Replace and Widen Alternative would replace the 463-meter (1,519-foot) long high-viaduct and the 1,137-meter (3,730-foot) long low-viaduct with wider structures that meet the most current seismic and structural design standards (see Figure 1-3). The height of the high-viaduct would vary from twenty to 35 meters (66 to 115 feet) above the ground surface. The low-viaduct would have an average height of approximately ten meters (33 feet) for the No Detour Option and approximately eight meters (26 feet) for the Detour Option. The new facility would be replaced on the existing alignment and widened to incorporate improvements for increased traffic safety.

This alternative would include either six 3.6-meter (12-foot) lanes and a 3.6-meter (12-foot) eastbound auxiliary lane with a fixed median barrier or six 3.6-meter (12-foot) lanes with a moveable median barrier. The new facility would have an overall width of 38.0 meters (124 feet). Both options would include continuous 3.0-meter shoulders along the facility. The fixed median barrier option would require localized lane width reduction to 3.3 meters (11 feet) to avoid impacts to the historic batteries and Lincoln Boulevard, reducing the facility width to 32.4 meters (106 feet). At the Park Presidio interchange, the two ramps connecting eastbound Doyle Drive to Park Presidio Boulevard and the ramp connecting westbound Doyle Drive to southbound Park Presidio Boulevard would be reconfigured to accommodate the wider facility. The Replace and Widen Alternative would operate similar to the existing facility except that there would be a median barrier and shoulders to accommodate disabled vehicles. The Replace and Widen Alternative includes two options for the construction staging:

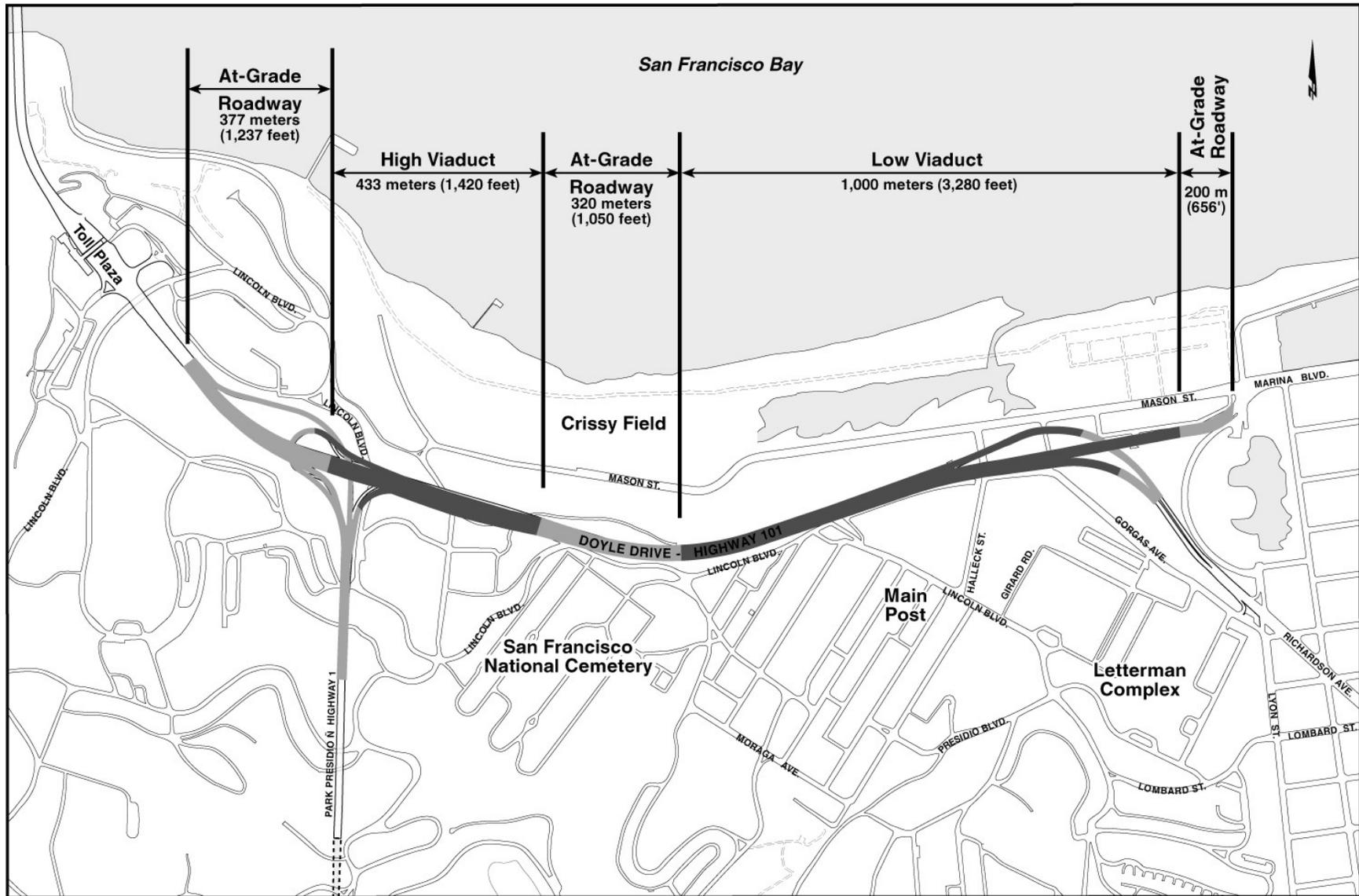
**No Detour Option** – The widened portion of the new facility would be constructed on both sides and above the existing low-viaduct and would maintain traffic on the existing structure. Traffic would be incrementally shifted to the new facility as it is widened over the top of the existing structure. Once all traffic is on the new structure, the existing structure would be demolished and the new portions of the facility would be connected. To allow for the construction staging using the existing facility, the new low-viaduct would be constructed two meters (six feet) higher than the existing low-viaduct structure.

**With Detour Option** - A 20.4-meter (67-foot) wide temporary detour facility would be constructed to the north of the existing Doyle Drive to maintain traffic through the construction period. Access to Marina Boulevard during construction would be maintained on an elevated temporary structure south of Mason Street. On and off ramps for the mainline detour facility would connect to existing Marina Boulevard/Lyon Street intersection.

Vehicular access to the Presidio is available from Doyle Drive via the on- and off-ramps to Merchant Road at the Golden Gate Bridge Toll Plaza. Presidio access at the east end of the project will be provided for southbound traffic via a right turn from Richardson Avenue to Gorgas Avenue. There would be no Presidio access for northbound traffic at the east end of Doyle Drive due to geometric constraints and concerns for traffic safety.

Retaining walls would be required at the Park Presidio interchange to accommodate the ramp realignments. A retaining wall would also be constructed on the south side of the facility along the constrained section between the National Cemetery and the historic batteries.

**FIGURE 1-3  
ALTERNATIVE 2: REPLACE AND WIDEN**



## **Alternative 5: Presidio Parkway Alternative**

The Presidio Parkway Alternative would replace the existing facility with a new six-lane facility and an eastbound auxiliary lane, between the Park Presidio interchange and the new Presidio access at Girard Road. (See Figure 1-4) The new facility would consist of two 3.3-meter (11 foot) lanes and one 3.6-meter (12 foot) outside lane in each direction with 3.0-meter outside shoulders and 1.2-meter inside shoulders. In addition, a 3.3-meter (11 foot) auxiliary lane runs along southbound Doyle Drive from the Park Presidio Interchange to the Girard Road exit ramp. The width of the proposed landscaped median varies from 5.0 meters (16 feet) to 12.5 meters (41 feet). To minimize impacts to the park, the footprint of the new facility would include a large portion of the existing facility's footprint east of the Park Presidio interchange.

A 450-meter (1,476-foot) long high-viaduct would be constructed between the Park Presidio interchange and the San Francisco National Cemetery. The height of the high-viaduct would vary from twenty to 35 meters (66 to 115 feet) above the ground surface. Shallow cut-and-cover tunnels would extend 240 meters (787 feet) past the cemetery to east of Battery Blaney. The facility would then continue towards the Main Post in an open depressed roadway with a wide heavily landscaped median.

From Building 106 (Band Barracks) cut-and-cover tunnels up to 310 meters long (984 feet) would extend to east of Halleck Street. The amount of fill over the tunnels is being coordinated with the Trust based on requirements of the Vegetation Management Plan. The expected minimum depth is two meters (6 feet). The facility would then rise slightly on a low level causeway 160 meters (525 feet) long over the site of the proposed Tennessee Hollow restoration and a depressed Girard Road. The low causeway would rise to approximately four meters (13 feet) above the surrounding ground surface at its highest point. East of Girard Road the facility would return to existing grade north of the Gorgas warehouses and connect to Richardson Avenue. The proposed facility would provide a transition zone starting from the Main Post tunnel to reduce vehicle speeds prior to entering city streets. A motor control and switch gear room to operate the tunnel life safety equipment would be integrated with the Main Post tunnels.

The Presidio Parkway Alternative would include an underground parking facility up to four meters (12 feet) deep at the eastern end of the alignment between the Mason Street warehouses and Gorgas Street warehouses. The parking garage would supply approximately 500 spaces to maintain the existing parking supply in the area and improve pedestrian and vehicular access between the Presidio and the Palace of Fine Arts.

Merchant Road Option - At the intersection with Merchant Road, just east of the toll plaza, a design option has been developed for a Merchant Road slip ramp. This option would provide an additional new connection from westbound Doyle Drive to Merchant Road. This ramp would provide direct access to the Golden Gate Visitors' Center and alleviate the congested weaving section where northbound Park Presidio Boulevard merges into Doyle Drive.

The Park Presidio interchange would be reconfigured due to the realignment of Doyle Drive to the south. The exit ramp from eastbound Doyle Drive to southbound Park Presidio Boulevard would be replaced with standard exit ramp geometry and widened to two lanes. The loop of the westbound Doyle Drive exit ramp to southbound Park Presidio Boulevard would be improved to provide standard exit ramp geometry. The northbound Park Presidio Boulevard connection to westbound Doyle Drive would be realigned to provide standard entrance ramp geometry. There are two options for the northbound Park Presidio Boulevard ramp to an eastbound Doyle Drive connection:

Loop Ramp Option - Replace the existing ramp with a loop ramp to the left to reduce construction close to the Cavalry Stables and provide standard entrance and exit ramp geometry.

Hook Ramp Option - Rebuild the ramp with a similar configuration as the existing directional ramp with a curve to the right and improved exit and entrance geometry.

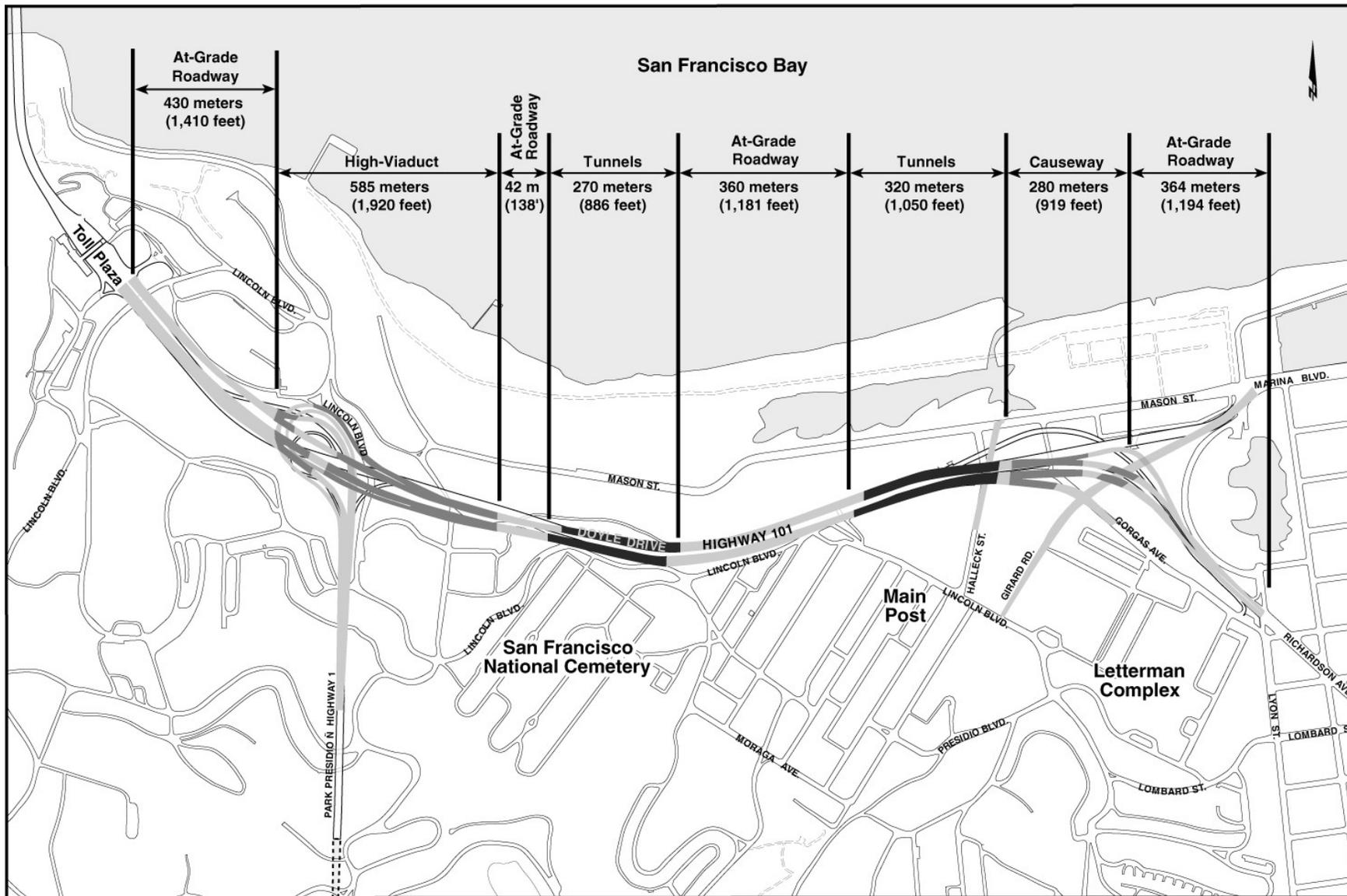
The Presidio Parkway Alternative includes two options for direct access to the Presidio and Marina Boulevard at the eastern end of the project:

Diamond Option – The Diamond option would provide direct access to the Presidio and indirect access to Marina Boulevard in both directions via access ramps from Doyle Drive connecting to an extension of Girard Road. East of the new Letterman garage, Gorgas Avenue is a one-way street and connects to Richardson Avenue with access to Palace Drive via a signalized intersection at Lyon Street.

Circle Drive Option – This option would provide direct access to the Presidio and indirect access to Marina Boulevard for eastbound traffic via access ramps connecting to an extension of Girard Road. Westbound traffic from Richardson Avenue would access the Presidio through a jug handle intersection to Gorgas Avenue.

Retaining walls would be required at the Park Presidio interchange to accommodate the reconstruction of the ramps. A retaining wall up to eight meters (26 feet) would be constructed along the south side of the facility between the Battery and Main Post tunnels. Retaining walls would also be required in the eastern end of the alignment primarily along the extended Girard Road. Fences would be required along the edge of the at-grade portions of the roadway to restrict pedestrian access onto the roadway.

**FIGURE 1-4  
ALTERNATIVE 5: PRESIDIO PARKWAY**



## 1.2 DOCUMENT ORGANIZATION

The Community Impact Assessment report is organized as follows. Section 2 describes the approach for preparing the Community Impact Assessment, including the methodology for analysis of existing conditions and project impacts. Section 3 describes existing conditions in the project study area, including socio-economic conditions, existing community facilities and public services, and existing land use patterns. Section 4 describes impacts, including temporary construction impacts and long-term operational impacts associated with each project alternative and a discussion of the project alternatives consistency with relevant plans and policies pertaining to the study area. Section 4 also includes a discussion of CEQA significance. Section 5 discusses cumulative impacts of the Doyle Drive Project in conjunction with other construction projects that may occur during the same time period. Section 6 lists the persons and agencies contacted in preparing this report. And Section 7 provides a list of references used for this report.

## 1.3 COMPLIANCE WITH LAWS AND REGULATIONS

Several Federal and state laws were identified as being relevant to the Doyle Drive Project. Many of the laws and regulations are specific to various natural resources. Discussion of those laws would be available in the other resource technical reports being prepared as part of the Doyle Drive Project. Compliance with those laws and regulations concerning the community and land use is briefly discussed below.

Americans with Disabilities Act (ADA) of 1990 – Outlines the Federal guidelines and accessibility requirements for disabled access to parking facilities, pathways and buildings. All new facilities associated with the Doyle Drive Project would be in full compliance with the ADA.

The National Historic Preservation Act of 1966 - Doyle Drive has been identified as a contributing structure to the Presidio of San Francisco's NHLD status and as a contributing structure in the draft Golden Gate Bridge District National Historic Landmark nomination. This status requires that all plans and future designs balance improvements in safety with the protection of the NHLD and compliance with Section 106 and 110(f) of the National Historic Preservation Act. Construction of a new Doyle Drive would be done in accordance with Section 106.

National Environmental Policy Act of 1969 (NEPA) – requires all Federal agencies to assess the environmental impacts of proposed projects and disclose the impacts of the project to the public in order to promote efforts which will prevent or eliminate damage to the environment. The President's Council on Environmental Quality was established to oversee NEPA for all Federal agencies. Following the guidelines of NEPA, this Community Impact Assessment has been prepared in order to document the impacts of the proposed project on the environment.

California Environmental Quality Act of 1970 (CEQA) (Public Resources Code §21000 et seq.) – requires California public agencies to identify the significant environmental effects of their actions, and either avoid those significant environmental effects, where feasible, or mitigate those significant environmental effects, where feasible. This Community Impact Assessment has been prepared following CEQA guidelines in order to document the potential significant impacts of the project on the environment.

Executive Order No. 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (1994) – directs Federal agencies to “promote nondiscrimination in Federal programs substantially affecting human health and the environment, and provide minority and low-income communities’ access to public information on, and an opportunity for public participation in, matters relating to human health or the environment.” The order directs agencies to use existing law to ensure that when they act:

- They do not discriminate on the basis of race, color, or national origin.

- They ensure public participation.
- They identify and address disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations.

Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended – this law provides important protections and assistance for people affected by Federally funded projects. It was enacted by Congress to ensure that people whose real property is acquired, or who move as a result of projects receiving Federal funds, will be treated fairly and equitably and will receive assistance in moving from the property they occupy. Direct property acquisition under the Doyle Drive Project alternatives would require implementation of this Act providing for relocation assistance services to affected homeowners, renters, and tenant businesses. In addition, this Act requires that residential and commercial property owners be paid fair market value of any property acquired as a result of the project.

Presidio Trust Act, as amended (16 U.S.C. § 460bb appendix) – gives authority and responsibility to the Presidio Trust to manage the Presidio’s (Area B) significant natural, historic, scenic, cultural, and recreational resources in a manner which is consistent with sound principles of land use planning and management, and to protect Area B from development and uses which would destroy the scenic beauty and historic and natural character of the area and cultural and recreational resources.

McAteer-Petris Act(California Government Code 66600-66682) of 1965, as amended - provides statutory authority to the state to establish water-oriented priority use areas, including water-oriented recreation and public assembly as further articulated in San Francisco Bay Plan policies that describe how this authority should be exercised within priority use areas.

Title VI of the Civil Rights Act of 1964 and related statutes – prohibits discrimination on the basis of race, color, and national origin in programs and activities receiving Federal financial assistance. Direct property acquisition under the Doyle Drive Project alternatives would require implementation of this Act along with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

Section 4(f) of the Department of Transportation Act of 1966 (49 USC 303) - Before use of any parkland can be approved for a transportation project, this law requires a determination that no feasible and prudent alternative route exists outside of such parklands, and incorporation of all possible planning to minimize harm to parklands, recreation areas, wildlife and waterfowl refuge, or any significant historic site. The Doyle Drive Project would be in compliance with Section 4(f) guidelines. A separate Section 4(f) analysis will be provided in the DEIS/DEIR.

The Secretary of Transportation may approve a transportation program or project requiring the use of publicly owned land of a public park, recreation area or wildlife and waterfowl refuge, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, recreation area, refuge, or site) only if:

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

## **1.4 PUBLIC OUTREACH**

The requirements of Title VI of the Civil Rights Act of 1964 were addressed by a community participation program for the Doyle Drive Project. Extensive community access to information, and opportunities to participate have been provided throughout the project formulation, planning, selection, and development processes. This access has been provided through the Public Involvement Program for the Doyle Drive Project. The Public Involvement Program provides a variety of communication channels to help the public to understand the current scope of the project, including its impacts and benefits. It solicits input and feedback

from the public as to their specific needs, issues, concerns and recommendations. Key features of the Public Involvement Program include stakeholders meetings; Project newsletters/Fact Sheets; Project Website; Citizens Advisory Committee; Community Workshops/Presentations; Public Hearings; and Media Relations.

The formal scoping process for this project began with a Notice of Intent (NOI) published in the Federal Register on February 16, 2000 and a Notice of Preparation (NOP) issued by SFCTA on February 23, 2000. Notification was also conducted by mailing a notice to a mailing list containing over 2,000 entries for agencies, elected officials, interested parties and property owners in the project area, placing newspaper ads in the San Francisco Chronicle and the Marin Independent Journal, and sending a press release to area newspaper and media outlets. An agency scoping meeting was held on March 3, 2000 at the SFCTA office in San Francisco, and public open houses were held on March 14 and 15, 2000 (one in the Presidio and one in San Rafael). GGNRA held an additional scoping meeting on March 21, 2000 in Fort Mason. Comments were accepted on the scope of the environmental studies. An additional public meeting was held on February 23, 2004 to update the public on the project's progress and gather input on screening out additional alternatives prior to preparing the DEIS/DEIR.

Comments gathered at the public meetings, on the project website and at the Citizens Advisory Committee meetings indicate that the public is primarily concerned with the visual impacts of a potential replacement of Doyle Drive. The public was concerned with how the facility would fit in with the existing environment. As a result, refinements were made to existing alternatives and additional alternatives were developed in response to these and other community concerns. Other comments have been made in reference to the traffic patterns in the Marina, the cost of a replacement structure, minimizing the impacts to historic buildings, and coordination with other projects in and around the Presidio.



## SECTION 2: METHODOLOGY

This section describes the methodology used for conducting the Community Impact Assessment for the Doyle Drive Project. The Community Impact Assessment addresses the potential effects of the Doyle Drive Project on the people and neighborhoods within the vicinity of the project. The Community Impact Assessment addresses a number of issues that are organized into two broad categories: the community profile and the land use profile.

The community profile includes information such as population, ethnicity, and housing; environmental justice; employment and economic conditions; fiscal conditions; and community facilities and public services. The land use profile includes land use patterns, Federal lands, development trends, and adopted land use and transportation goals and policies throughout the project area. The approach for the Community Impact Assessment includes an inventory of existing conditions and an evaluation of potential impacts of the project. In addition, the Community Impact Assessment includes a discussion of significance criteria and findings based on the guidelines of the California Environmental Quality Act of 1970 (CEQA).

The design year for the analysis is 2030, and the methodology follows guidelines provided by the California Department of Transportation (Caltrans) Environmental Handbook Volume 4 – Community Impact Assessment (June 1997), and by the U.S. Department of Transportation and FHWA Community Impact Assessment: A Quick Reference for Transportation (September 1996).

### 2.1 COMMUNITY PROFILE

Various socioeconomic characteristics were analyzed for the Doyle Drive Project at the census tract, county, and regional level. The characteristics analyzed include population, housing and households, age, ethnicity, employment and income. Environmental justice (EJ) considerations were also analyzed. The demographic information utilized in this analysis is primarily based on the 1990 and 2000 U.S. Census, along with data from the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC). Data projections and estimates for the year 2030 are from a report by ABAG, Projections 2003: Forecasts for the San Francisco Bay Area to the Year 2030 (June 2003), the biennial forecast of population, housing, employment, jobs and income for the nine-county San Francisco Bay Region. A report by the MTC, Vehicle Ownership Forecasts for the San Francisco Bay Area 1990-2020 (July 2000) provided data on household automobile ownership throughout the Bay Area. Some data specific to the Presidio was provided by The Presidio Trust.

The study area is comprised of the Presidio (census tract 0601), and the 16 surrounding tracts where project related effects might occur (see Figure 3-1). This includes the footprint of all project alternatives and the construction zone area and the adjacent neighborhoods which include the Marina, Cow Hollow, Pacific Heights, and Richmond districts.

The environmental justice analysis was prepared following Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (1994). The methodology was based on FHWA Order 6640.23. Ethnic and racial minority and low-income population groups in the affected community were identified in this report using 1990 and 2000 U.S. Census data that describe racial and income data, and significant project impacts that disproportionately affect these groups, if any, were evaluated.

As defined in Executive Order 12898 and subsequent agency guidance, the term “minority” includes any individual who is an American Indian or Alaskan Native, Asian or Pacific Islander (including Native Hawaiian), Black/African American (not of Hispanic origin), or Hispanic/Latino. The term “low-income” is defined in accordance with Executive Order 12898 and agency guidance as a person with household income at or below the Department of Health and Human Services (HHS) poverty guidelines (California Department

of Transportation, Desk Guide: Environmental Justice in Transportation Planning and Investments, January 2003).

Minority and low-income populations were identified when (a) the minority or low-income population of the affected area exceeded 50 percent or (b) the minority or low-income population percentage of the affected area is meaningfully greater than the minority or low-income population percentage in the general population. For the purposes of this analysis, this difference was assumed to be more than ten percentage points. The study area for environmental justice analyses included U.S. Census Tracts within the project study area and adjacent tracts in which direct access patterns may be modified. The minority and low-income populations within these census tracts were compared to the City and County of San Francisco and the Bay Area as a whole.

## 2.2 LAND USE PROFILE

The study area for the land use and Federal lands analysis includes the footprint of all project alternatives including any construction staging areas, equipment storage/laydown areas, and temporary detour routes in the Presidio and portions of adjacent neighborhoods (see Figure 1-1). The inventory of existing land uses was based on information provided in the Presidio Trust Management Plan (PTMP). The analysis of land use impacts primarily focused on the effects to buildings and parking within the Presidio and the potential effects to the existing and future land use patterns of the designated planning areas.

The existing regulatory setting of the study area was documented by reviewing existing adopted land use plans that pertain to the Doyle Drive Project study area. The project alternatives were evaluated for their consistency with the various plans and policies. Plans and policy documents that were reviewed included:

- Final General Management Plan Amendment and Environmental Impact Statement (GMPA)
- Presidio Trust Management Plan: Land Use Policies for Area B of the Presidio of San Francisco (PTMP)
- Report of the Doyle Drive Task Force to the San Francisco Board of Supervisors: A Scenic Parkway for the Park (Doyle Drive Task Force Report)
- Final Environmental Impact Statement and Planning Guidelines for New Development and Uses on 23 Acres within the Letterman Complex (Letterman Complex EIS)
- Presidio of San Francisco Vegetation Management Plan and Environmental Assessment (VMP)
- Presidio Trails and Bikeways Master Plan & Environmental Assessment
- San Francisco Bay Plan
- San Francisco General Plan

The plans and policy review also included examination of current and expected development trends in and around the study area within the study horizon year. This included development trends in surrounding neighborhoods such as the Marina, Lombard corridor and Cow Hollow, as well as within the Presidio.

**SECTION 3: ENVIRONMENTAL SETTING**

The following section describes the current community and land use conditions within the Presidio and surrounding area. The environmental setting provides the basis for the analysis in Section 4: Impact Analysis.

**3.1 COMMUNITY PROFILE**

**3.1.1 Demographic Characteristics**

**3.1.1.1 Regional Trends**

Doyle Drive is an important segment in the transportation system, not only for the City and County of San Francisco, but also as a component of the U.S. Highway 101 system. It forms the southern approach of U.S. 101 to the Golden Gate Bridge, which is the only direct highway linkage between San Francisco and Marin County to the north.

The City and County of San Francisco is one of nine counties that comprise the Bay Area, the others being Alameda, Contra Costa, Marin, Napa, San Mateo, Santa Clara, Solano, and Sonoma. Between the years 1990 and 2000, the Bay Area population increased by approximately 12.6 percent to nearly 6.8 million, and it is estimated to increase another 29.4 percent between the years 2000 and 2030 to approximately 8.8 million persons.

While the entire Bay Area experienced substantial population growth between 1990 and 2000, the San Francisco rate of growth was the slowest of the nine counties, growing only 7.3 percent from 1990 to 2000. The total population in the City for the year 2000 was 776,733. Population growth trends and projections for the other eight Bay Area counties that surround San Francisco are shown in Table 3-1. Between the years 2000 to 2030, the projected rate of growth for San Francisco is expected to increase approximately 20.4 percent, for a total population of 935,100 by the year 2030.

**TABLE 3-1  
BAY AREA POPULATION GROWTH TRENDS AND PROJECTIONS, 1990 – 2030**

Location	1990	2000	Growth Rate 1990-2000	2030 Forecast	Growth Rate 2000-2030
San Francisco	723,959	776,773	7.3%	935,100	20.4%
Alameda	1,279,182	1,443,741	12.9%	1,888,300	30.8%
Contra Costa	803,732	948,816	18.1%	1,257,300	32.5%
Marin	230,096	247,289	7.5%	283,100	14.5%
Napa	110,765	124,279	12.2%	153,400	23.4%
San Mateo	649,623	707,163	8.9%	845,900	19.6%
Santa Clara	1,497,577	1,682,585	12.4%	2,274,200	35.2%
Solano	340,421	394,542	15.4%	577,300	46.3%
Sonoma	388,222	458,614	18.1%	565,700	23.3%
Bay Area Total	6,023,577	6,783,760	12.6%	8,780,300	29.4%

Sources: 1990 and 2000 data based on the U.S. Census; 2030 population forecast data obtained from the Association of Bay Area Governments, Projections 2003, June 2003.

Table 3-2 shows population, race and age characteristics of the census tracts within the study area. As a national park, the Presidio serves a population beyond the local area. Therefore, the racial composition and age characteristics of the City and County of San Francisco and the Bay Area population were also examined. Based on 2000 U.S. Census data the ethnic breakdown of the Bay Area is approximately 58 percent White, 19 percent for both Asian and Hispanic, 7 percent African American, and approximately one percent for American Indians, Alaska natives, and Pacific Islanders. Other races and persons of two or more races account for approximately 14 percent of the Bay Area population.

Of all the cities in the Bay Area, the city of San Francisco is one of the most diverse. Based on 2000 U.S. Census data the two largest ethnic groups are Whites at approximately 50 percent of the population and Asians at about 31 percent. Hispanics make up 14 percent of the population with African Americans at nearly 8 percent. American Indians, Alaska Natives, and Native Hawaiian and Pacific Islanders together comprise about one percent of the City's population. Persons of two or more or other races comprise about 11 percent.

From 1990 to 2000, there was a slight increase in household size for both San Francisco and the Bay Area. The average persons per household in San Francisco increased from 2.29 in 1990 to 2.30 in 2000, while the Bay Area average increased from 2.61 in 1990 to 2.69 in 2000. Although household size is projected to decrease to 2.27 by the year 2030 for San Francisco County, average household size for the nine-county Bay Area region is projected to increase slightly to 2.71 in 2030.

In 2000 there were a total of 2,552,402 housing units in the Bay Area, with about 97 percent of the units occupied and the remaining 3 percent vacant (for rent or for sale). Approximately 58 percent of the occupied housing units in the Bay Area were owner occupied. The total number of housing units in San Francisco County in 2000 was 346,527, with approximately 95 percent occupied and five percent vacant. However, only approximately 35 percent of the occupied housing units in San Francisco were owner occupied.

Along with the growing population, automobile ownership (vehicles available) throughout the Bay Area is estimated to rise from nearly 4 million in 1990 to 5.43 million in 2020 with the automobiles per household ratio increasing from 1.77 to 1.91 for the same period. The percentage of zero-vehicle households in San Francisco was 30.3 percent in 1990 (93,000 households). It is expected to decrease by 3.8 percent by 2020 to 25.8 percent (85,500 households) (Metropolitan Transportation Commission, [Vehicle Ownership Forecasts for the San Francisco Bay Area 1990-2020](#) (Based on ABAG Projections 2000), Data Summary, July 2000).

### **3.1.1.2 Study Area Trends**

The study area is comprised of the Presidio, census tract 0601, and sixteen surrounding tracts where project related effects might occur (see Figure 3-1). Doyle Drive traverses the northern portion of tract 0601. Tract 0601 encompasses the largest land area of 603 hectares (1,490 acres) of the 17 tracts. Immediately to the east of the Presidio are tracts 0127, 0128 and 0132, with tracts 0126, 0129 and 0130 just east of those. These tracts are completely within the Marina district and a portion of the Cow Hollow neighborhood. The eastern boundary is Van Ness Avenue, with the southern boundary formed by Jackson and Vallejo Streets. Immediately to the south of the Presidio are tracts 0133, 0401, 0402 and 0426 with tracts 0154, 0157, 0156, 0451, 0452 and 0476 to the south of those. With the exception of tract 0157, these tracts make up the Presidio Heights and Inner Richmond districts, while tract 0157 is part of the Western Addition district. Forming the boundary of these tracts are Baker Street to the east, Fulton Street to the south, and 24<sup>th</sup> and 20<sup>th</sup> Avenues to the west.

**TABLE 3-2  
POPULATION, RACE AND AGE CHARACTERISTICS, 2000**

Census Tracts <sup>1</sup>	Population	% White alone	% Black or African American alone	% American Indian and Alaska Native alone	% Asian alone	% Native Hawaiian and Other Pacific Islander alone	% Hispanic <sup>2</sup>	% Other <sup>3</sup>	% Under 18	% 65 or over
0126	4,915	86.0%	0.4%	0.0%	9.4%	0.2%	3.7%	3.9%	5.6%	13.6%
0127	3,497	87.4%	0.1%	0.0%	9.0%	0.0%	2.9%	3.5%	7.0%	13.0%
0128	4,209	84.8%	0.5%	0.0%	8.4%	0.4%	3.3%	5.9%	8.9%	14.2%
0129	5,706	84.2%	0.2%	0.2%	12.2%	0.0%	5.0%	3.2%	4.5%	13.0%
0130	4,130	86.6%	0.3%	0.4%	10.2%	0.2%	4.3%	2.3%	5.9%	11.5%
0132	4,436	87.5%	0.3%	0.2%	10.3%	0.0%	2.8%	1.7%	11.9%	13.3%
0133	4,145	86.5%	0.7%	0.4%	5.7%	0.4%	4.8%	6.2%	16.0%	15.5%
0154	5,762	69.5%	3.4%	0.3%	20.0%	0.3%	7.5%	6.5%	11.1%	13.7%
0156	2,821	57.9%	3.8%	0.6%	32.6%	0.0%	5.2%	5.1%	10.3%	11.7%
0157	6,875	59.2%	8.1%	0.6%	24.1%	0.5%	8.0%	7.5%	7.2%	9.6%
0401	4,348	58.3%	1.7%	0.2%	33.7%	0.2%	5.7%	6.1%	13.2%	14.1%
0402	5,364	54.1%	0.5%	0.3%	39.7%	0.0%	3.8%	5.4%	14.1%	13.0%
0426	7,200	55.2%	0.7%	0.2%	38.4%	0.1%	5.2%	5.5%	14.5%	14.3%
0451	5,102	43.6%	2.5%	0.2%	50.6%	0.0%	3.7%	3.1%	14.1%	12.6%
0452	6,695	47.5%	0.7%	0.5%	44.2%	0.0%	3.2%	7.0%	15.0%	14.9%
0476	5,431	42.8%	1.9%	1.4%	51.3%	0.1%	3.7%	2.5%	14.7%	15.7%
0601	2,338 <sup>4</sup>	81.5%	2.8%	1.5%	4.9%	0.0%	9.6%	9.3%	15.9%	0.8%
Study Area Total or Average	82,870	69.0%	1.7%	0.4%	23.8%	0.1%	4.9%	5.0%	11.2%	12.7%
City & County of San Francisco	776,733	49.6%	7.6%	0.5%	30.9%	0.5%	14.1%	11.0%	14.5%	13.7
Bay Area	6,783,760	58.0%	7.4%	0.6%	19.0%	0.5%	19.4%	14.5%	23.6%	11.2%

Source: 2000 U.S. Census.

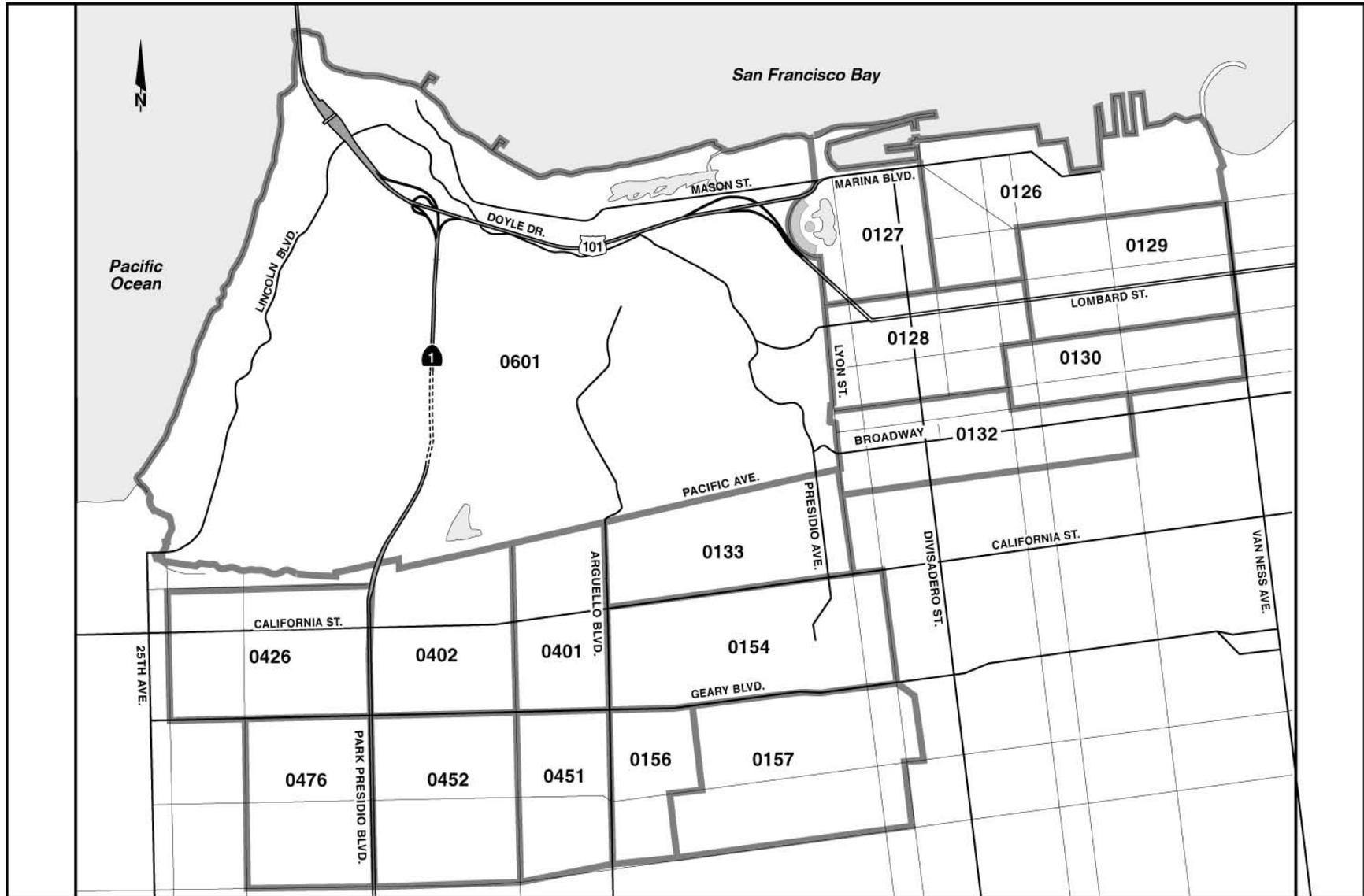
Notes: <sup>1</sup> See Figure 3-1 for census tract boundaries.

<sup>2</sup> Percentages do not add to 100% because Hispanic is not counted as a separate race in the U.S. Census.

<sup>3</sup> Includes “some other race alone” and “two or more races.”

<sup>4</sup> Data from the Presidio Trust, June 2004.

**FIGURE 3-1  
CENSUS TRACT STUDY AREA**



### **The Presidio**

The demographic characteristics of tract 0601 are unique. Tract 0601 is made up of the Presidio, which is a NHLA and part of the GGNRA and the National Park System. The historic uses of the Presidio include a Native American settlement, a Spanish military post, a Mexican military post, and a U.S. Army base. In 1994, the United States Sixth Army departed the Presidio and the NPS took over management. In 1998, the Trust assumed management responsibility for non-coastal areas of the Presidio (80 percent of the Park) [see Figure 1-1]. The Trust is a non-profit corporation of the U.S. government and is governed by a seven member Board of Directors. Six members are appointed by the President of the United States, and the seventh member is the U.S. Secretary of the Interior or her designee. The Trust aims to achieve financial self-sufficiency for the Presidio by fiscal year 2013. Doyle Drive is located within Area B – the area controlled by the Trust.

The John Stewart Company, a residential property development and management company, is under contract to The Presidio Trust to oversee all aspects of marketing, leasing, and managing the Presidio residences. Through its Operations Department, The Presidio Trust, who owns all of the housing units within the Presidio, is currently responsible for all maintenance and repairs to the units. The Presidio Trust provided the most current socioeconomic information for tract 0601.

As of June 2004, there were a total of 1,089 apartments and single-family homes in the Presidio plus 109 dorms or former bachelor officers' quarters. Approximately 950 of the units managed by the Trust within the Presidio are currently occupied, while the other units are vacant, occupied by NPS staff/volunteers, or are under rehabilitation. As of June 2004, approximately 2,340 people live in the 950 units, indicating an average of approximately 2.5 persons per household. Approximately 30 people live in group quarters in the 24 units at Building 1028 (former nurses' dorms) that are managed by the Trust. The June 2004 vacancy rate for available housing, calculated using the number of units that are available for leasing, is approximately five percent (Ann Ostrander, Presidio Trust, personal communication, July 2004).

Average rental costs in the Presidio as of June 2004 are as follows: \$1,492 for a one-bedroom; \$1,836 for a two-bedroom; \$2,303 for a three-bedroom; \$3,081 for a four-bedroom; and \$7,024 for a five or more bedroom unit (Ann Ostrander, Presidio Trust, personal communication, July 2004). The Trust has developed three discount programs, representing nearly 20 percent of the existing housing stock, in order to provide a variety of housing options for people that work within the Presidio. The three programs include a Preferred Renter Program, a Public Safety Housing Programs, and a Housing Units for Small Households Program.

The Trust's Preferred Rental Program offers housing to full-time Presidio-based employees whose household incomes do not exceed 100 percent of the area median, adjusted for household size. Tenants pay 30 percent of their combined household income for rent, including utilities. The Preferred Rental Program accounts for 125 or 20 percent of the housing units in the following five neighborhoods: Quarry, MacArthur, Sanches, Baker Beach, and South Baker Beach.

The Trust's Public Safety Housing Programs represent 40 units for full-time Presidio-based fire fighters and U.S. Park Police officers who pay either 25 or 30 percent of individual salary for rent, including utilities. The Public Safety Housing Programs are available in the same areas as the Preferred Rental Program with the additions of the West Washington and North Fort Scott neighborhoods.

The third Trust program, that is currently underway, is the Housing Units for Small Households Program. Currently, 24 single-room occupancy units at Building 1028 (Letterman Apartments) are leased to lower-income Presidio-based employees, with priority is given to households earning up to 50 percent of the area median income. Depending on income levels, monthly rents range between \$475 and \$525.

### **Census Tract Study Area**

From 1990 to 2000 the total population of the census tracts study area, including the Presidio and surrounding tracts, increased by about 620 persons. Based on 2000 U.S. Census data, the total population for the census tract study area was 82,870, which was 11 percent of the total population of the City of San Francisco. Table 3-2 shows basic population, race and age characteristics of the census tracts within the

study area. Tract 0426 has the largest population at 7,200 while tract 0601 is the least populated with 2,234. Tracts 0133 and 0476 have the largest percentage of residents over the age of 65, while tract 0133 has the largest percentage of residents under the age of 18.

Based on the ABAG's Projections 2003, the total population of the census tract study area is projected to increase approximately 9.6 percent between 2000 and 2030 for a total of 90,850 persons. The tracts estimated to have the largest growth rates from 2000-2030 are tracts 0601 (52 percent), 0133 (18 percent), and 0157 (16.3 percent).

Although the census tract study area is ethnically diverse, in 2000 the majority of residents (on average) were White (69 percent). The next largest population is Asian (nearly 24 percent), followed by Hispanic (5 percent) and African American (nearly 2 percent). Tracts to the east of the Presidio are predominately White; the tracts to the south have larger Asian populations (see Table 3-2 and Figure 3-1).

Housing characteristics for the census tract study area from the 2000 U.S. Census are shown in Table 3-3. The general housing characteristics of the census tract study area closely resemble those of the whole city. The total number of housing units within the census tract study area is 42,664, approximately 12 percent of the total housing units within San Francisco. The majority of the housing units are renter occupied; only an average of 28 percent of housing units are owner occupied. Multi-unit buildings with 5 or more units are the dominant housing type, comprising an average of 43 percent of the housing units. The average vacancy rate for the study area is approximately six percent. The tracts east of the Presidio primarily have a lower average household size than the tracts south of the Presidio, as well as higher percentages of multi-family housing units.

**TABLE 3-3  
HOUSING CHARACTERISTICS, 2000**

Tract	Housing Units	Average Household Size	% Owner Occupied	% Vacant	% With 5 or More units
0126	3,424	1.5	21%	6%	64%
0127	2,277	1.6	26%	4%	58%
0128	2,597	1.7	29%	5%	47%
0129	3,786	1.6	16%	4%	63%
0130	2,640	1.6	25%	5%	61%
0132	2,642	1.8	36%	7%	65%
0133	2,097	2.1	43%	6%	41%
0154	3,003	2.0	28%	3%	44%
0156	1,351	2.1	30%	4%	30%
0157	2,564	2.1	27%	4%	31%
0401	1,986	2.2	26%	4%	39%
0402	2,507	2.2	28%	4%	37%
0426	3,322	2.3	28%	4%	31%
0451	2,187	2.4	27%	4%	31%
0452	2,891	2.4	36%	4%	25%
0476	2,288	2.5	40%	4%	16%
0601	1,198 <sup>1</sup>	2.5 <sup>2</sup>	2%	5% <sup>3</sup>	22%
Study Area Total or Average	42,664	2.1	28%	5.8%	43%
City of San Francisco	346,527	2.3	35%	5%	44%
Bay Area	2,552,402	2.7	60%	3%	24%

Source: 2000 U.S. Census.

Notes: <sup>1</sup> This includes 1,089 apartments/single family homes plus 109 dorms or former bachelor officers' quarters; data from The Presidio Trust, June 2004.

<sup>2</sup> Based on 2,340 persons in 950 occupied units; data from The Presidio Trust, June 2004.

<sup>3</sup> If calculated using the number of units that are available for leasing, vacancy rate is approximately five percent; if calculated on an overall park-wide basis, it is approximately 20 percent (this includes units that are or will be under rehabilitation or controlled by the NPS); data from The Presidio Trust, June 2004.

**3.1.2 Environmental Justice Considerations**

The 2000 U.S. Census race data in this section (summarized in Table 3-2) shows that none of the minority (non-white) populations comprise more than 50 percent of the population as a whole within the study area. Also, the percentage of minority populations within the study area as compared to the City and County of San Francisco or the Bay Area as a whole is not greater than ten percentage points for any group.

Poverty status was used to identify populations as low-income. This data is summarized in Table 3-4. Poverty status, as defined by the U.S. Census, is determined by comparing a person's total family income with the poverty thresholds appropriate for that person's family size and composition. For example, the threshold for a family comprised of two adults and one child is \$13,410 (U.S. Census Bureau, Current Population Survey, March 2000).

For the census tracts within the study area, the percent of individuals below the poverty level ranges from 3.3 percent to 17.3 percent. On average, the percent below poverty level is 6.8 percent. The table shows the study area does not have a majority (more than 50 percent) of individuals living at the poverty level. Also, compared to the City and County of San Francisco (6.8 percent versus 11.3 percent) and the Bay Area as a whole (6.8 percent versus 8.6 percent), the study area does not have significantly more persons living below the poverty threshold (i.e. greater than ten percentage points).

**TABLE 3-4  
POVERTY STATUS, 2000**

<b>Census Tracts</b>	<b>All Income Levels (individuals)</b>	<b>Below Poverty Level (individuals)</b>	<b>Percent Below Poverty Level</b>
0126	4,915	177	3.6%
0127	3,497	141	4.0%
0128	4,209	146	3.5%
0129	5,706	211	3.7%
0130	4,130	153	3.7%
0132	4,436	147	3.3%
0133	4,145	141	3.4%
0154	5,662	346	6.1%
0156	2,776	313	11.3%
0157	5,379	695	12.9%
0401	4,217	381	9.0%
0402	5,337	364	6.8%
0426	7,200	531	7.4%
0451	5,102	407	8.0%
0452	6,668	571	8.6%
0476	5,431	427	7.9%
0601	2,236	387	17.3%
Study Area Total or Average	81,046	5,538	6.8%
City & County of San Francisco	765,356	86,585	11.3%
Bay Area	6,661,540	573,333	8.6%

Source: 2000 U.S. Census, Table QT-P34.

The Trust and the NPS identified several outreach programs that are designed to meet some of the needs of minority and low-income populations. The Presidio YMCA includes a complete fitness center and swimming pool available to all members of the community (Buildings 1152 and 1151, respectively). Community outreach programs organized at the Presidio YMCA are youth-oriented and include after-school and leadership programs at several middle schools in San Francisco. These programs are conducted off-site. There are currently between 700-800 participants in these programs.<sup>3</sup> The YMCA does not keep income or ethnic data on the users of its gym and pool facilities, and outreach programs are not specifically oriented towards using these facilities. The Crissy Field Center (Building 603) offers a wide array of multicultural environmental programming, along with community outreach and education. Activities at the Crissy Field Center include seminars, workshops, educational programs, programs aimed at families or older adults, and various walks and talks. These activities utilize the center seven days per week year round and sometimes in the evening. Overall, these programs are characterized as being oriented towards populations that are typically underserved in the national parks, primarily minority and low-income populations. Almost 18,000 people representing underserved populations, or about half of all visitors, used the Crissy Field Center between March 2003 and March 2004.<sup>4</sup> The San Francisco Conservation Corps is another community group serving minority and low-income populations located within the Presidio. It was previously located at Building 1163 which is within the Doyle Drive study area. It recently moved and is now located in Building 1243 which is not within the Doyle Drive corridor.<sup>5</sup> Buildings 1029 and 1030 are home to the community-based, nonprofit Swords to Plowshares. Swords to Plowshares provides counseling, employment and training, housing, and legal assistance to veterans in the San Francisco Bay Area. Part of their mission is to reduce homelessness and poverty among veterans. Each year, Swords to Plowshares provides assistance to nearly 1,500 veterans in need.<sup>6</sup>

<sup>3</sup> Elizabeth Jordan, Executive Director, Presidio YMCA, personal correspondence, August 3, 2004.

<sup>4</sup> Carol Prince, Golden Gate National Parks Conservancy, personal correspondence memorandum, August 4, 2004.

<sup>5</sup> Amy Marshall, The Presidio Trust, personal correspondence, July 26, 2004.

<sup>6</sup> <http://www.swords-to-plowshares.org/FAQ.htm>

### **3.1.3 Employment and Economic Conditions**

#### **3.1.3.1 Regional Trends**

During the years 1990 to 2000 the nine-county Bay Area experienced significant growth in the number of jobs, from 3,206,080 to 3,753,670, an increase of 17 percent (ABAG, December 2001). Based on ABAG's Projections 2003, the increase in jobs is expected to continue through the year 2030. Approximately 1.5 million new Bay Area jobs are forecast between 2000 and 2030, for a total of 5,226,400 jobs, or a 39 percent increase. From 2000 to 2030 the number of jobs in San Francisco is projected to increase by nearly 29 percent from 634,430 to 815,680, for a total of 181,250 new jobs (ABAG, June 2003).

According to Projections 2003 data for the year 2000, the economy of the Bay Area is dominated by the service sector which employed approximately 1.5 million people in 2000 and accounted for approximately 39 percent of the region's jobs. Other major employment sectors include retail jobs at nearly 16 percent and manufacturing and wholesale jobs at almost 20 percent of the regional total. Within the city of San Francisco, the service sector accounts for approximately 44 percent of the total economy, with retail at 15 percent and manufacturing and wholesale at almost 9 percent (ABAG, June 2003). Growth in these job sectors is projected to continue to 2030 for both the Bay Area and San Francisco.

In 2000, the total number of employed residents in the Bay Area was about 3,605,675, and total employed residents in San Francisco were 444,851 (ABAG, June 2003). In May 2004, the average civilian unemployment rate for the Bay Area was 4.7 percent, lower than the 6.2 percent level statewide. The San Francisco unemployment rate was 4.4 percent, about the same as the Bay Area unemployment rate (Bureau of Labor Statistics, <http://www.bls.gov>).

Based on 2000 U.S. Census data, the Bay Area's average mean household income was \$61,135, higher than that of San Francisco with \$55,221; the Bay Area had a lower average per capita income than San Francisco, \$31,056 compared to \$34,556 respectively. Approximately three percent of Bay Area households received public assistance income in 2000 while four percent of San Francisco households received assistance. Within the Bay Area, the average percent of population living below the poverty line is 8.2 percent, with San Francisco having the highest percentage of people below the poverty line at 11.3 percent (Census 2000 Sample Demographic Profiles, Table DP-3 <http://www.census.gov/hhes/poverty/2000census/poppvstat00.html>). Poverty rate is defined as the percentage of people below the poverty level. The definition of low-income or poverty level, according to the U.S. Census Bureau, is when the family's total income is below the poverty thresholds by family unit size ("How the Census Bureau Measures Poverty", U.S. Census Bureau at <http://www.census.gov/hhes/poverty/povdef.html>). The poverty threshold for a family size of four (2000) is a mean household income of less than \$17,603 (Table of Poverty Thresholds: 2000, U.S. Census Bureau. <http://www.census.gov/hhes/poverty/threshld/thresh00.html>).

#### **3.1.3.2 Study Area Trends**

##### **The Presidio**

Currently there are an estimated 2,020 employees in the Presidio, with the majority of jobs in governmental and non-profit sectors. According to the PTMP, the projected employment in the Presidio is expected to be 6,890 by 2020.

##### **Census Tract Study Area**

In 2000 the total number of employed residents for all tracts within the study area was 54,538 (ABAG, June 2003). By 2030 the number of employed residents is projected to increase by approximately 14 percent to 62,122. In 2000 the total number of jobs within the census tract study area was approximately 35,870 (ABAG, June 2003). The largest percentage of jobs, approximately 46 percent, was in the service sector. Retail trade comprised 24 percent of the jobs, wholesale just over 2 percent, and manufacturing and agriculture each only accounted for less than 1 percent of total jobs within the census tract study area. According to 2030 projections, the total number of jobs within the census tract study is projected to increase by approximately 30 percent to 46,635 jobs by the year 2030. Service sector jobs should still dominate in

2030 with nearly 49 percent of total employment, while retail trade is projected to slightly decline to approximately 21 percent, and wholesale, manufacturing, and agriculture should remain approximately the same as in 2000.

Average earning within the census tract study area was higher than that of San Francisco as a whole. In 2000 the study area average per capita income was \$57,297, compared to \$34,556 for all of San Francisco. The average 2000 mean household income for the study area was approximately \$121,500, and it is estimated to increase to nearly \$155,000 by 2030. The tracts to the east of the Presidio generally have higher per capita incomes and mean household incomes. Poverty rates were also examined for the census tract study area based on 2000 U.S. Census data. The poverty rates for the tracts east of the Presidio ranged between 3.3 to 4.0 percent (2000 U.S. Census). Higher poverty rates, between 3.4 to 13 percent applied to the majority of tracts south of the Presidio. The Presidio had a poverty rate of 17.3 percent, which is above the average poverty rate of 6.8 percent for the census tract study area.

### **3.1.4 Fiscal Conditions**

#### **3.1.4.1 City and County of San Francisco**

The Mayor's 2004-2005 proposed budget for the City and County of San Francisco estimates total revenues of approximately \$5.0 billion, the majority of which is from charges for services (approximately 32 percent) and from local taxes (approximately 31.5 percent) (Mayor's Proposed Budget 2004-2005, available at: <http://www.sfgov.org/mayor>). The remaining 36.5 percent comes from various sources including Federal and state grants, licenses and fines, and other revenues. The largest share of the city's revenue, approximately 39 percent, is expended on salaries and wages of the city employees. Twenty-three percent of the city revenue is for payment of professional and contractual services, 11 percent is for fringe benefits, 10 percent is for debt service, and nearly 5 percent is for facilities maintenance and capital projects. Many of the capital and facility maintenance projects are often moved to non-annually budgeted funds and/or other spending categories. Highlights of the budgeted \$243 million for capital and facility maintenance projects include approximately 65 percent for various public utilities projects, over 15 percent for San Francisco International Airport projects, approximately 6 percent for various recreation and park commission projects, and approximately 3 percent each for San Francisco Municipal Railway (MUNI) projects and Port related projects.

#### **3.1.4.2 The Presidio**

In 1998, the Trust issued the Financial Management Program which outlines how the Trust will reduce its reliance on appropriated funds for successive years and achieve financial self-sufficiency by fiscal year 2013 and beyond. The operations of the Presidio are currently financed through direct appropriation, borrowings from the U.S. Treasury, reimbursable agreements with other government agencies, and rental leases for both residential and non-residential property. Additional income is generated from special events, interest income from investments, and through service-related entities that the Trust manages, including water treatment, electrical distribution and telecommunications for the Presidio. According to the PTMP, income will continue to come from the same sources but with increasing importance on the revenues generated from commercial and residential leases as Federal appropriations are reduced yearly. The Trust is actively rehabilitating and renovating numerous structures throughout the Presidio in order to supply quality space. To help fund the rehabilitation of Presidio resources, the Trust will continue to encourage investment from private funds. An additional source of revenue is expected to come from grants and/or philanthropic gifts.

Based on the Fiscal Year 2004 Revised Budget Without Environmental Remediation, (Trust, May 18, 2004), the Trust generated approximately \$41 million in total revenues. Trust activities that generated the largest amount of inflow were residential rent income (approximately \$23 million) and non-residential rent income (approximately \$9.7 million). The Trust received approximately \$21 million through appropriation. Other inflows amounted to approximately \$21 million. Major sources of outflows totaling \$38 million included expenditures for facilities, administration/operations, law enforcement, fire, safety, and planning. Other

sources of outflow totaling \$45 million included capital projects, financial and insurance costs, and contingency/unknown projects.

### **3.1.5 Community Facilities and Public Services**

Community facilities and public services include educational facilities; emergency services including police, fire and emergency response; and the utility system.

#### **3.1.5.1 Educational Facilities**

There are a number of schools located within the Presidio. There are three preschools including the Lone Mountain Children's Center, and Presidio Child Development Center (preschool affiliated with the San Francisco Unified School District).<sup>7</sup> The Bay School of San Francisco (approximately 100 students in 2004-2005, and estimated to increase to 375-395 students), is currently located in Building 682. The high school will move into Building 35 once the current renovations are complete.

There are approximately twenty organizations that offer educational programs at the Presidio. Most are located near the Letterman Complex and the Main Post area. In particular, there are two organizations that are located in the vicinity of the proposed alternatives for Doyle Drive. They include:

- Crissy Field Center, 603 Mason Street – A program of the NPS and the Golden Gate National Parks Association, this community environmental center provides a small café and book store, and conducts workshops and other programs for the public, including outreach to low-income and minority groups; and
- Swords to Plowshares Veterans' Academy, 1029 and 1030 Girard Road – Non-profit organization that aids ex-veterans in the rehabilitation and restructuring of their lives. Swords to Plowshares offers training in areas such as computer use and cooking and schooling in various vocations.<sup>8</sup>

#### **3.1.5.2 Emergency Services**

##### **Police**

Law enforcement services in Area B of the Presidio are provided by the U.S. Park Police (USPP) while services in Area A are provided by both the USPP and NPS law enforcement rangers. The USPP also has a mutual aid agreement with the San Francisco Police Department (SFPD) whereby the SFPD will provide assistance when requested by the USPP. In the remainder of the GGNRA, law enforcement services are provided by NPS rangers or other local law enforcement agencies, depending on the jurisdictional status of park lands. The USPP services include vehicle, motorcycle, horse-mounted, bicycle and foot patrols. The USPP has police stations located in Building 1217 on Ralston Road in the Fort Scott area near the Golden Gate Bridge, as well as a horse stall located at Building 221.

Other law enforcement services in the Presidio are provided by the California Highway Patrol (CHP). The CHP has jurisdiction over Doyle Drive and Park Presidio Boulevard, and the City of San Francisco Police, which serves the parking lot/overlook on the south side of the Golden Gate Bridge Toll Plaza.

Areas outside the Presidio, including the Marina and Cow Hollow neighborhoods, are served by the SFPD. There are two SFPD District Stations within the study area. They are District Stations E and G. District Station E covers the Marina district, Lombard Street corridor and Cow Hollow neighborhood. It is called the Northern Police Station and is located at 1125 Fillmore Street. District Station G covers the Presidio, Presidio Heights, Richmond, Inner Richmond, and part of Western Addition. It is called Richmond Police Station and is located at 461 6<sup>th</sup> Avenue.

<sup>7</sup> John Pelka, The Presidio Trust, personal correspondence, August 30, 2004.

<sup>8</sup> Directory of Organizations at the Presidio of San Francisco and the Golden Gate National Recreation Area, Spring 2001.

### **Fire and Emergency Services**

The Presidio Fire Department provides fire and emergency services within the Presidio, and is the first responding unit on the Golden Gate Bridge, Doyle Drive, and Park Presidio Boulevard north of the MacArthur Tunnel. The Presidio Fire Department will also respond to accidents on Park Presidio Boulevard south of the MacArthur Tunnel if requested by the San Francisco Fire Department as part of a mutual aid agreement. Two fire stations are located near the project site. One station is located in the Presidio in Building 218 on Lincoln Boulevard in the Main Post. This station includes both fire trucks and ambulance. The other station is located in the Marin Headlands at Fort Cronkhite, in Building 1045 on Rodeo Beach. This station primarily serves Fort Cronkhite, Fort Barry, and Fort Baker and provides secondary response to the Presidio. The average response time for fire and emergency medical calls in the Presidio is less than three minutes (Trust, 2002b).

GGBHTD also provides fire and emergency tow truck service that respond to and clear any accidents on Doyle Drive, Park Presidio Boulevard, and the Golden Gate Bridge. Its service area limits are U.S. 101 at Spencer Avenue to the north, Doyle Drive at Marina Boulevard and Richardson Avenue at Lyon Street to the east, and Park Presidio at Lake Street to the south. GGBHTD has a maintenance facility at the Golden Gate Bridge Toll Plaza, with one fire truck, four tow trucks, and two pick-up trucks. This station is typically staffed with a minimum of three public officers during most of the day, and at least two officers between 10:00 pm and 6:00 am. GGBHTD also has a mutual aid agreement with the Presidio Fire Department and San Francisco Fire Department.

Outside the Presidio and within the study area, fire protection and emergency medical services (paramedics) are served by the San Francisco Fire Department. There is a mutual aid agreement between the San Francisco and Presidio fire departments where it would allow either department to request assistance from the other in time of special need. There are five fire station locations within the study area:

- Fire Station 10: 655 Presidio Avenue (Laurel Heights)
- Fire Station 14: 551 26<sup>th</sup> Avenue (Richmond)
- Fire Station 16: 2251 Greenwich Street (Cow Hollow)
- Fire Station 31: 441 12<sup>th</sup> Avenue (Richmond)
- Fire Station 34: 499 41<sup>st</sup> Avenue (Richmond)

### **3.1.5.3 Utilities**

The utility system is comprised of the water system, sewer system, stormwater system, power system, natural gas system, and telecommunications system.

#### **Water System**

Lobos Creek is the primary source for drinking water in the Presidio. The water is treated at the Presidio Water Treatment Plant. Water is supplied throughout the Presidio by a system of pipes of various sizes including 102-, 152-, 203- (4-, 6-, 8-inch) and 254-meter (10-inch) diameter pipes. The water distribution system also supplies the water for irrigation systems, internal building sprinkler systems, and fire hydrants. Near the project site, water pipes run parallel to and across Doyle Drive. In cases when the water supply from Lobos Creek is not adequate, water may also be obtained from the San Francisco Public Utilities Commission water system, which connects to the Presidio's water system.

Construction on the recycled water treatment system in Building 1063 will begin shortly. The system will recycle waste water generated on the Presidio by turning it into high-quality recycled water suitable for landscape irrigation and other non-potable uses. The system will reduce the potable water demand, and reduce the amount of sanitary sewer flows to the City and County of San Francisco's combined sewer

system.<sup>9</sup> Phase I of the system will produce 200,000 gallons per day of recycled water that will be used for irrigation at the Letterman Digital Arts Center and at Crissy Field. Phase II will make recycled water available to other areas of the Presidio including the Main Post, National Cemetery, and Fort Scott by expanding to a maximum of 500,000 gallons per day of recycled water. Building 1063 (former Medical Supply Warehouse) is the preferred site for the treatment plant (Presidio Trust, Water Recycling System Will Reduce Water Usage, 2003; and Presidio Trust Recycling Project Environmental Assessment, March 2002).

### **Sewer System**

All wastewater generated in the Presidio is pumped to the City of San Francisco sewer system. Wastewater from the east side of the Presidio is transported to the Southeast Water Pollution Control Plant and wastewater from the west side is transported to the Oceanside Water Pollution Control Plant. Two wastewater pump stations are located in the Presidio; they pump wastewater from low areas to high areas, then into the City of San Francisco's sewer system via gravity flow lines. The larger wastewater pump station, which includes two 150-millimeter (6-inch) pumps, is located near Building 211 and takes wastewater from the Crissy Field area. The smaller wastewater pump station is located between Buildings 1160 and 1152 and takes wastewater from along Richardson Avenue. The sanitary sewer system consists of 203-, 254-, 305-, 406- (8-, 10-, 12-, 16-inch), and 457-millimeter (18-inch) diameter pipes that run parallel to and across Doyle Drive.

### **Stormwater System**

The stormwater system, which is a separate system from the sanitary sewer system, collects surface runoff and discharges water directly into San Francisco Bay or the Pacific Ocean. The east side of the Presidio also discharges stormwater into the Crissy Field wetland. The stormwater system consists of pipes of a variety of sizes, ranging from 203-millimeter (8-inch) to 1,219-millimeter (48-inch) diameter pipes. All pipelines in the Doyle Drive corridor flow by gravity to the north and cross the roadway.

### **Power System**

Electric power is supplied to the Presidio from connections to Pacific Gas and Electric Company (PG&E), primarily at the Greenwich and Main Post substations. From the substations, the power is distributed throughout the Presidio by the Trust's high voltage department. The electric distribution system consists of the two major substations, 12 emergency back-up generators, and approximately 68 kilometers (42 miles) of above and below ground electrical lines. The power lines vary in voltage (some are 12,000 volts; some are smaller) and many are located parallel to and across Doyle Drive. PG&E operates a high voltage line (12,000 volts) that runs along Doyle Drive and provides power to the Golden Gate District.

### **Natural Gas System**

Natural gas is provided to the Presidio by PG&E via a system of 102-millimeter (4-inch) and 152-millimeter (6-inch) diameter pipes located parallel to and across Doyle Drive. In July 2002, the NPS transferred ownership to the Trust of a vehicle fueling station that provides compressed natural gas (CNG) (Jim Kelley, Presidio Trust personal communication, July 11, 2002). The vehicle fueling station is located at the west end of Building 204.

### **Telecommunications System**

Presidio Trust Telecom owns and operates all telecommunications systems in the Presidio. Telecommunications lines, including both copper wire and fiber optics, are located entirely underground and cross Doyle Drive at five locations. The number of cable ducts at each location varies from two to nine cable ducts, each generally 102-millimeter (4-inch) in diameter.

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<sup>9</sup> John Fa, The Presidio Trust, personal correspondence, August 9, 2004.

## 3.2 LAND USE PROFILE

This section describes the existing environmental setting of the project study area in terms of land use and Federal lands.

### 3.2.1 Inventory of Existing Land Uses

This section describes the land uses and Federal lands that may be affected by the proposed project alternatives for the Doyle Drive Project. The Presidio, under the direction of the NPS (Area A) and the Trust (Area B), has been converted from an active U.S. Army military base to a national park. The buildings within the Presidio, which is an NHL, reveal a number of architectural styles, ranging from brick Colonial Revival to stucco Mission Revival to wood-frame temporary barracks. Throughout the years many of the buildings have supported different types of uses as the needs of the Army changed. Now that the Presidio is a national park, many buildings are being rehabilitated to support civilian uses, thus once again changing the land uses.

The Presidio is comprised of approximately 603 hectares (1,490 acres) with 473 hectares (1,168 acres) in Area B and 131 hectares (323 acres) in Area A. Land use within Area B is predominately open space (281 hectares) (695 acres), which includes forest, landscaped areas, wetlands, trails, and the Presidio Golf Course. Approximately 191 hectares (473 acres) of Area B are developed land. Of the developed areas, about 68 hectares (168 acres) are used for residential purposes, and approximately 56 hectares (138 acres) are office and mixed-use. Institutional and visitor with mixed-use occupy about 42 hectares (103 acres) of the land area, while highway rights-of-way and other infrastructure encompass approximately 25 hectares (63 acres) of the land (see Figure 3-2).

The Presidio features more than approximately 325,160 square meters (3.5 million square feet) of non-residential space, ranging from historic warehouses and former barracks to high-end office space. Approximately two-thirds of the buildings are historic, representing architectural styles from the Spanish era through World War II (Presidio Trust, Real Estate Department, 2003). Of the 325,160 square meters (3.5 million square feet), approximately 45 percent of the space is currently occupied.<sup>10</sup> Retail and office uses comprise 60 percent of the occupied space and industrial/warehouse/infrastructure comprises 24 percent. Office uses are generally located in the Main Post and Letterman Planning areas and include non-profit organizations, foundations, and for-profit entities. Other non-residential building use includes cultural, educational and recreational. Residential building area comprises approximately 222,970 square meters (2.4 million square feet). Future plans outlined in the PTMP are to reduce the total building area in Area B by 33,445 square meters (360,000 square feet) or more while adding an additional 40 hectares (99 acres) of open space.

The study area includes the Presidio, which is on Federal land, and areas in the Marina district adjacent to the Presidio (west of Broderick Street) Lombard Street corridor (between Chestnut Street and Greenwich Street), and the Cow Hollow neighborhood (north of Greenwich Street and west of Broderick Street). The portion of the study area in the Presidio includes four of the seven planning areas outlined in the PTMP: Crissy Field (Area B); Letterman; Main Post; and Fort Scott (see Figure 3-3). Each planning area is derived from the 13 planning areas delineated in the GMPA and represents a geographic clustering of land uses within the Presidio.

Land uses within each area were defined by the following categories from the PTMP (see Figure 3-2):

- Mixed-use/Visitor: Community Focus - includes a mix of uses devoted to public uses such as museums, small-scale lodging and visitor amenities
- Mixed-use/Office/Residential – includes a mix of office, warehouse and storage facilities in addition to residences

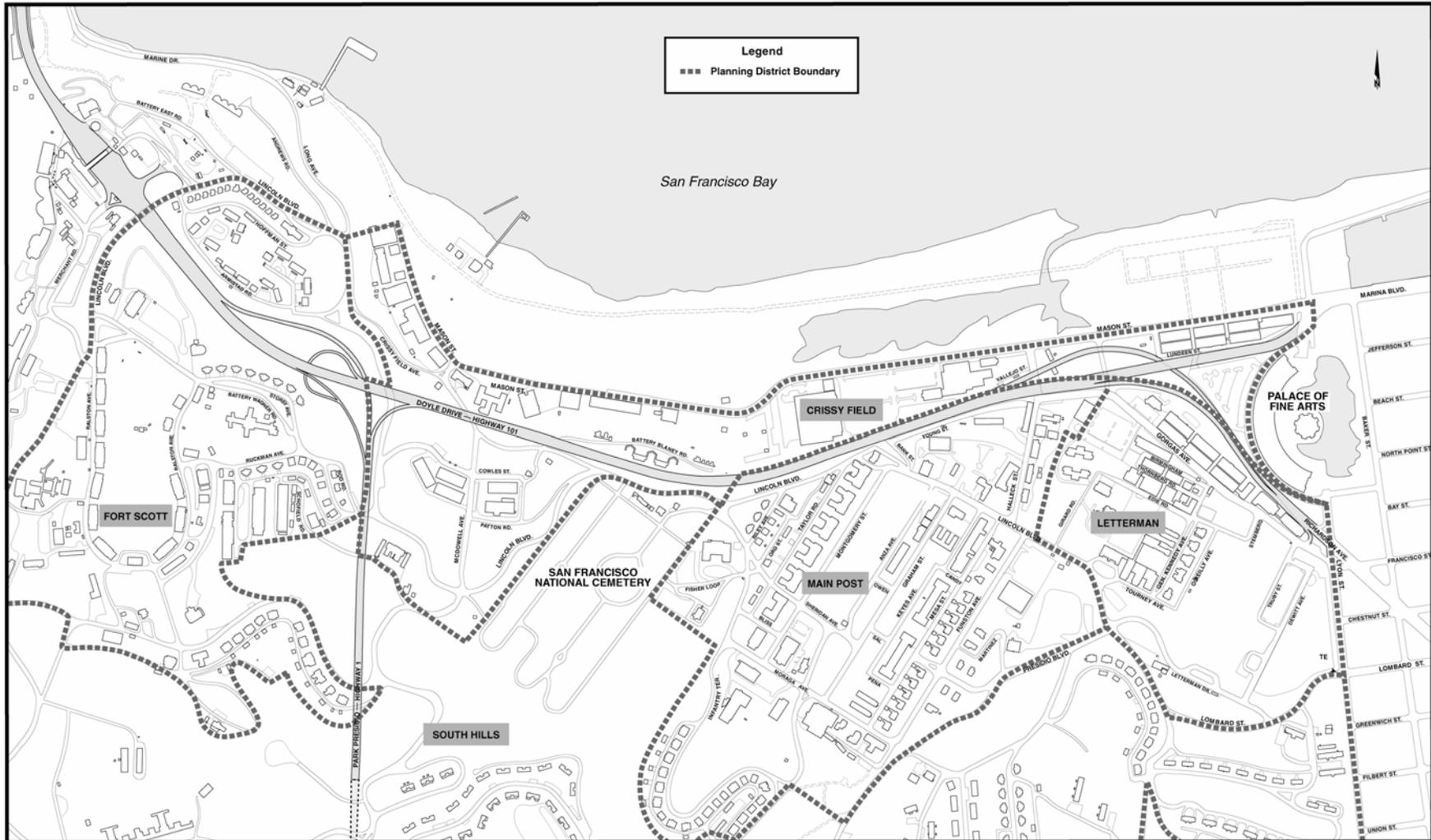
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<sup>10</sup> Data from the PTMP based on unoccupied space as of November 2000.

- Mixed-use/Visitor: Cultural Focus – includes uses such as educational centers, performing arts facilities, training facilities, and interpretation sites
- Residential – includes buildings used for housing including, single-family houses, duplexes, apartment complexes, and dormitories
- Infrastructure – includes utilities and facilities necessary for operation of the Presidio
- Open Space/Natural Areas - includes native plant communities, forest, landscape vegetation and disturbed areas.



**FIGURE 3-3  
PRESIDIO PLANNING DISTRICTS**



Source: PTMP, 2002.

### 3.2.1.1 Crissy Field

The Crissy Field planning area encompasses approximately 41 hectares (102 acres) and includes the area between Mason Street, Doyle Drive and Lincoln Boulevard. There are about 40 buildings located in the area that is designated as a recreation, educational and cultural destination in the PTMP.

There are several industrial warehouse and office buildings South of Mason Street, near the Marina district entrance. West of these buildings, near the intersection of Halleck and Mason streets, there is another cluster of buildings including the Crissy Field Center, the Commissary and the Post Exchange. The Commissary currently houses the Sports Basement, a discount sporting good retailer, while the Post Exchange is currently vacant.

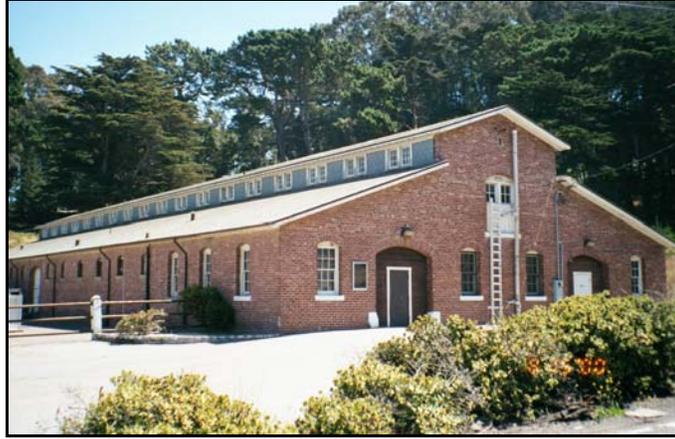
West of the Commissary, between Doyle Drive and Crissy Field, is a series of aircraft hangars, warehouses and two-story office buildings originally designed to serve Crissy Airfield (see Figure 3-4). About half of these buildings appear to be vacant, while the other half are used as warehouses for the Trust ground maintenance and other departments. The former enlisted men's barracks, now vacant, is also in this area.



Source: Public Affairs Management, August 2000.

**Figure 3-4**  
**Former aircraft hangars, Crissy Airfield at Crissy Field**

The Cavalry Stables area is located immediately to the south of Doyle Drive in the vicinity of the high-viaduct structure of Doyle Drive (see Figure 3-5). The Cavalry Stables are located south of Crissy Field, east of Fort Scott, and west of the National Cemetery. Of the five large stables located in this area, two are used by the Park Police, one is used as the Park Archives and Records Center, one is used for storage, and the other stable is vacant. A riding ring is located along Lincoln Boulevard. The Pet Cemetery is located north of the stables, where McDowell Avenue and Crissy Field Road meet. The Pet Cemetery will be maintained at its present location and size. Former Cavalry Barracks are located to the south, overlooking the stables.



Source: Public Affairs Management, August 2000.

**Figure 3-5  
Cavalry Stables**

### 3.2.1.2 Letterman

The Letterman planning area is located just west of the historic Lombard Gate entrance to the Presidio. The Letterman planning area is approximately 24 hectares (60 acres) and it is designated as a mixed-use residential and working campus. Doyle Drive runs along the northern boundary of the Letterman District, separating it from the Palace of Fine Arts and Exploratorium. The 9-hectare (23-acre) original Letterman complex included a hospital, research facility, wards, clinics, offices, dormitories, and warehouses. In early 2002, the Letterman Army Medical Center and Letterman Army Institute of Research buildings were demolished for the construction of the Letterman Digital Arts Center, a digital arts campus that will be the future home of Lucasfilm’s subsidiary companies. The Letterman Digital Arts Center will create an office campus consisting of new buildings comprising approximately 78,968 square meters (850,000 square feet) of space. The Digital Arts Center will be engaged in research, development and production of digital arts and technologies for use in entertainment, education, communications, and other industries. Also included on the site will be an underground garage for approximately 1,500 vehicles, as well as landscaped open space/public garden available for use by park visitors, employees of the Digital Arts Center, other Presidio tenants, and area residents (see Figure 3-6). The project is scheduled for completion in the summer of 2005 (The Presidio Trust, March 2000, and Lucasfilm, 2004).



Source: Parsons Brinckerhoff, July 2004.

**Figure 3-6  
Letterman Digital Arts Center (under construction)**

Along the northern edge of the Letterman District, and immediately adjacent to Doyle Drive, is a row of historic warehouses on Gorgas Street which contain a mix of uses including storage, commercial and recreational. Additional warehouse and office uses are found in the buildings located along Thornburg Road.

To the east of the original Letterman District are groups of office buildings (Buildings 1000 – 1004 and Buildings 1007 -1009) and former residences (Buildings 1000 -1004) (see Figure 3-7). These buildings are occupied by the multi-tenant non-profit Thoreau Center for Sustainability.



Source: Public Affairs Management, August 2000.

**Figure 3-7**  
**Office buildings, east of Letterman Complex**

On the western edge of the Letterman District, north of the office buildings, are an apartment complex and two buildings (Buildings 1029 and 1030) that have been transformed into the Swords to Plowshares Veterans Academy (see Figure 3-8), an educational and job training center serving formerly homeless veterans.



Source: Public Affairs Management, August 2000.

**Figure 3-8**  
**The Veterans Academy**

The former Officers' Family Housing area is located just south of the Letterman planning area in the East Housing planning area. This building is still used for housing.

**3.2.1.3 Main Post**

The Main Post planning area encompasses approximately 49 hectares (120 acres) and is located west of the Letterman planning area, with Doyle Drive serving as the northern boundary of the Main Post planning area. The area was historically the center of activity in the Presidio. Subsequently, it is an area containing many historical buildings out of the 138 total buildings. The Main Post is the center of visitor activities, and the NPS Visitor Center (see Figure 3-9) and the Trust offices are located in this area. The area contains rows of former barracks that are now used as office buildings surrounding a large parking lot that was once a parade ground. The PTMP designated the Main Post to continue in its role as both a visitor and community center for the Presidio. Preferred land uses in the planning area include office, cultural, educational, residential and lodging, service retail, and recreation.



Source: Public Affairs Management, August 2000.

**Figure 3-9  
National Park Service Visitor Center, Main Post**

A bowling alley (see Figure 3-10), theater, YMCA gymnasium, and tennis courts provide recreational activity in the area. On the outer east side of the Main Post are former Officers' quarters which remain as residences today. On the outer edges of the Main Post are buildings used for community services. A child development center and community center are located to the south of the old parade grounds. West of the main parade grounds is the Golden Gate Club, which is currently being used as a conference center. On a small hill overlooking the Main Post is the Post Chapel.



Source: Public Affairs Management, August 2000.

**Figure 3-10  
Bowling Center, Main Post**

Tennessee Hollow is one of the Presidio's primary watersheds, and it runs through the Main Post planning district. This watershed feeds the restored Crissy Marsh. The GMPA and PTMP recommend that surface drainage and native riparian habitat be re-established within this watershed. The drainage system in Tennessee Hollow is largely contained in underground storm drain pipes, which would be restored to surface flow supporting a corridor of riparian habitat. Surface reconnection of the Tennessee Hollow freshwater system with the Crissy Marsh saltwater system would provide for the rich freshwater/saltwater marsh transition zone, highly valued for its biodiversity. The riparian corridor from the bay to the uplands on the Presidio would provide quality wildlife habitat and migration pathways.

#### **3.2.1.4 Fort Scott**

The Fort Scott planning area is located west of the Park Presidio interchange and extends west to Lincoln Boulevard along the border with Area A. The planning area is approximately 53 hectares (132 acres) and contains 157 buildings, most of which are historic. The area is characterized by Battery Howe-Wagner, a series of enlisted barracks (see Figure 3-11), warehouses, and other residential buildings. The former enlisted barracks surround a field with a baseball field and basketball courts at one end and an open grassy field on the other. The USPP occupy one of the former barracks buildings and the San Francisco Fire Department occupies another. The other buildings appear to be vacant. Due to the peaceful setting of the Fort Scott planning area, the PTMP has designated the area as ideal for education, conferences, and research with supporting lodging, housing and offices.



Source: Public Affairs Management, August 2000.

**Figure 3-11**  
**Former barracks, Fort Scott**

North of the barracks is a small chapel and an adjoining vacant warehouse. The Log Cabin Recreation Center is also located to the north of the barracks on Storey Street. East of the barracks is Battery Howe-Wagner, several occupied single-family and duplex houses, and several warehouses. Currently the Native Plant Nursery occupies one of the warehouses. Additional larger houses, formerly reserved for officers, are located south of the barracks and the Battery.

The former Pilots' Row is located north of Doyle Drive, overlooking Crissy Field to the east (see Figure 3-12). The former Pilots' Row includes two-story single-family homes along Lincoln Boulevard and several apartment buildings behind them.



Source: Public Affairs Management, August 2000.

**Figure 3-12**  
**Pilots' Row on Lincoln Boulevard**

### 3.2.1.5 South Hills

The South Hills planning area is the largest planning area encompassing approximately 235 hectares (580 acres). The area is dominated by open space and recreation facilities with some residential uses. The northernmost point of the South Hills planning area is the San Francisco National Cemetery (see Figure 3-13). The cemetery is located just south Doyle Drive and east of Park Presidio Boulevard. The cemetery is administered by the U.S. Department of Veterans Affairs. Within the cemetery are the graves of former U.S. soldiers and their families. A cluster of Mission Revival style buildings are at the cemetery's northern end near the entry gate.



Source: Public Affairs Management, August 2000.

**Figure 3-13**  
**San Francisco National Cemetery**

### 3.2.1.6 Area A

The coastal region of the Presidio is designated as Area A and it is under the management of the NPS. Several distinctive features are located within the 131 hectares (323 acres) that comprise Area A, including Crissy Field, Crissy Marsh, Fort Point, and the historic batteries.

Crissy Field is located north of Doyle Drive, extending to the shoreline of the San Francisco Bay (see Figure 3-14). The area, formerly used as an airfield for the U.S. Army, is now being used as public open space and it has been restored to its natural wetland geography. Through the NPS Crissy Field Renovation Project, a 7.3-hectare (18-acre) tidal marsh was created with an outlet to the bay that allows water to ebb and flow with the tides. A large meadow was created west of the marsh for recreational activities. In addition, the NPS has planted native plants to restore the area to its natural conditions. West of this area is Battery East and Fort Point, two historical sites and popular tourist destinations.



Source: Parsons Brinckerhoff, July 2004.

**Figure 3-14**  
**Crissy Field**

The Golden Gate Promenade multi-use trail runs along the shoreline providing bicycle and pedestrian access to the Golden Gate Bridge from the Marina district (see Figure 3-15). This area creates a continuous band of public open space north of Mason Street from Marina Green through Crissy Field to Fort Point, located at the south end of the Golden Gate Bridge. Pedestrian and bicycle trails encircle the Crissy Field area, making this area an active recreation area in which to walk, run, bicycle, roller blade, and enjoy other activities. Picnic areas, restrooms and parking facilities are located on the northeast shoreline, close to the Marina Green. The recreational uses at Crissy Field are physically separated from Doyle Drive by Mason Street and existing buildings.



Source: Public Affairs Management, August 2000.

**Figure 3-15**  
**Golden Gate Promenade in Crissy Field**

Along the shoreline, across from the old airfield, is the Historic Coast Guard Station, which includes a residential building, an office building, a boathouse and a fishing pier (see Figure 3-16). The Gulf of the Farallones National Marine Sanctuary Visitor Center is housed in this area.



Source: Public Affairs Management, August 2000.

**Figure 3-16**  
**Historic Coast Guard Station, Crissy Field**

The northernmost point of Area A includes Fort Point, located at the south end of the Golden Gate Bridge. The Golden Gate Bridge (see Figure 3-17) continues to be an important regional transportation link as well as a tourist destination and definitive symbol for the city of San Francisco. On the hill on the west side of the Bridge are administration and maintenance buildings for the GGBHTD. Many of these buildings are temporary offices and maintenance buildings. On the east side of the Golden Gate Bridge is the viewing area and the Golden Gate Bridge gift shop. Beneath the bridge along the northwestern shoreline of the Presidio stands Fort Point (see Figure 3-17) and Battery East. These historic military structures are also major tourist attractions. They have a beautiful view of the Golden Gate Bridge and across the Bay to Angel Island and Marin County. The Golden Gate Promenade links Crissy Field to Fort Point.



Source: Photo from NPS website, [www.nps.gov/fopo](http://www.nps.gov/fopo)

**Figure 3-17**  
**Fort Point and the Golden Gate Bridge**

Along the western portion of Area A overlooking the Pacific Ocean are a series of military battery buildings built in the late 1800s and early 1900s including Battery Godfrey (see Figure 3-18). These historic structures are maintained by the NPS. Informal trails run through the vegetation linking each battery. Surrounding the

batteries are natural wildlands with steep slopes. In order to allow preservation of the natural areas, there is no plan for future development of this area.



Source: Public Affairs Management, August 2000.

**Figure 3-18**  
**Battery Godfrey**

### **3.2.1.7 San Francisco Neighborhoods**

The Doyle Drive study area includes part of San Francisco neighborhoods adjacent to the Presidio. These areas include the Marina district (west of Broderick Street), which includes the Palace of Fine Arts/Exploratorium area, the Lombard Street corridor (between Chestnut and Greenwich Streets), and the Cow Hollow neighborhood (north of Greenwich Street and west of Broderick Street). The Marina Green, Saint Francis Yacht Club and promenade along Marina Boulevard are important recreational uses in the area adjacent to the project study area.

The remaining adjoining land uses are primarily residential. The Marina neighborhood primarily consists of primarily two-story single family homes, with some neighborhood commercial uses located on Chestnut Street. Tourist- and highway-oriented commercial uses including many hotels and restaurants are located on the Lombard Street corridor (U.S. Highway 101). The Lombard Street corridor (U.S. Highway 101) divides the Marina neighborhood from the Cow Hollow neighborhood. Adjacent to the Presidio are ground floor commercial uses on are located along Lombard Street and Lyon Street between Lombard Street and Greenwich Street. These commercial uses are mostly neighborhood-oriented, with the exception of a motel where Lombard Street and Richardson Avenue merge. The Cow Hollow neighborhood consists of mainly three- and four-story single family homes and apartment buildings, with neighborhood commercial uses primarily on Union Street.

Residential neighborhoods have developed on the borders of the Presidio. Part of the Marina and Cow Hollow neighborhoods are within the eastern end of the Doyle Drive Project study area. The Marina Green, located east of the Presidio along Marina Boulevard, provides recreational opportunities along the shoreline for both residents and tourists.

### **3.2.2 Development Trends**

#### **Past and Current Development Trends**

Based on legislation adopted in 1972, the Presidio became part of the GGNRA in 1994 when the U.S. Army transferred jurisdiction of the park to the NPS. Since 1998, the park has been managed by both the NPS, who oversee Area A (coastal), and The Presidio Trust, who manage Area B (interior). While the two agencies have jurisdiction over separate areas of the Presidio, they engage in many cooperative programs. The GMPA, as previously discussed, serves as the planning document for Area A of the Presidio, while the PTMP guides development in Area B. Under the GMPA many wetlands and natural riparian corridors have been restored including Crissy Marsh. Under guidance of the PTMP many historic buildings have been rehabilitated and adapted for civilian uses, visitor and public safety services have been established throughout the park and numerous preservation and rehabilitation efforts for native plant communities, historic forest zones and landscaped vegetation areas have taken place. Current development in the Presidio includes the construction of the Letterman Digital Arts Center on the site of the former Letterman Hospital; initial construction phases of the Richardson Avenue slip ramp which will provide access into the Presidio at Gorgas Avenue from eastbound Richardson Avenue; construction of a transit center along Lincoln Boulevard adjacent the Post Office (Building 210); on-going building rehabilitation; and initial studies for the restoration of the Tennessee Hollow riparian corridor and expansion of Crissy Marsh.

#### **Future Trends**

The Presidio would remain primarily in open space with its natural, historic, scenic, cultural and recreational resources preserved for public use and enjoyment. Open space would be increased by approximately 40.5 hectares (100 acres) and building space would be decreased over time, primarily by removing non-historic housing in the southern portion of the park. The natural environment would be enhanced, remnant systems preserved and expanded, native plant and wildlife species protected, the historic forest preserved and rehabilitated, and streambed corridors enhanced or restored. Recreational resources and visitor experience opportunities would be enhanced. The total building area in the park would be reduced by approximately 33,445 square meters (360,000 square feet) or more, from the 553,702 (5.96 million square feet) that currently exist to 520,257 square meters (5.6 million square feet) or less.

Nearly one-third of the building space would be set aside for public uses such as visitor centers, lodging, cultural and educational uses. The integrity and historic character of the NHLD would be protected, though over time limited changes in keeping with the park's character would occur. Historic buildings and landscapes that distinguish the NHLD would be rehabilitated and adaptively used. Some new construction would occur, limited to developed areas and compatible with existing structures, to facilitate the rehabilitation and reuse of historic buildings, and to meet other park objectives, including replacement of housing removed to expand open space. Housing demand would be monitored and the supply of housing would not exceed the current count of about 1,650 units. An improved mix of housing types would be achieved through subdivision and conversion of existing buildings, and potential new construction.

Planning efforts are underway to restore Tennessee Hollow to a surface drainage with native riparian habitat and to expand Crissy Marsh. The GMPA includes a plan to expand the Crissy Field marshland, which commenced in 2002 when the Trust, Golden Gate National Parks Association (GGNPA) and NPS began a collaborative planning effort to study the performance of the marshland and assess what further expansion would be required in order to assure the longevity of Crissy Field as an ecosystem. Prior studies have indicated that a minimum expansion of 5 hectares (12 acres) may be required to sustain the tidal marsh into the future.

Construction of the water recycling system in Building 1063 (former Medical Supply Warehouse) in the Presidio will begin shortly. The system will provide high-quality recycled water for landscape irrigation and other non-potable uses, reducing the potable water demand, and reducing the amount of sanitary sewer flows to the City and County of San Francisco's combined sewer system (The Presidio Trust, 2002). The system will provide an additional source of water for the Presidio. The Letterman Digital Arts Center is currently under construction and will include development of new buildings, an underground parking garage,

and public open space. Under guidance of the PTMP, the Presidio will continue to be protected and maintained as a national park but also thrive as a community.

In the neighborhoods outside of the Presidio, several transit improvements have been proposed. The San Francisco Countywide Transportation Plan (SFCTA, 1997) includes a discussion of potential extension of the MUNI "E" trolley line along the shoreline. This extension is also mentioned in the Transportation Element of the San Francisco General Plan, San Francisco Bay Conservation and Development Commission's (BCDC) The San Francisco Bay Plan, and the Presidio's GMPA.

The E-line will initially run from Caltrain to Fisherman's Wharf along The Embarcadero, using existing MUNI Metro and F-line tracks. The current MUNI E-line feasibility study will examine two incremental extensions of the service, with the first increment extending to Lower Fort Mason and the second increment going all the way to the Presidio. Tying the Presidio, Fort Mason and Aquatic Park into the E-line would link together the entirety of San Francisco's northern and central waterfronts. The E-line would provide transbay commuters access to many points in the City by connecting all San Francisco ferry terminals to Caltrain, BART, and SamTrans.

The San Francisco Department of Parking and Traffic developed a Marina Boulevard Traffic Study Proposed Scope in 1997 to assess the impacts and benefits of adding bike lanes and center refuge islands and reducing the existing four lanes on Marina Boulevard between Lyon and Laguna Streets. The study of the proposed Marina Boulevard changes has not occurred because the study has not been funded.

## SECTION 4: IMPACT ANALYSIS

The impact analysis examines both the construction period impacts (temporary) and impacts associated with the permanent operation of a new facility (long-term). The following is a description of the general construction activities to provide an overview of activities and material which would be involved in the construction of a new Doyle Drive.

The estimated construction period is between four to five years for all build alternatives. During the construction period there would be a disruption of normal activities within the Presidio resulting from the introduction of construction noise, a change in the visual setting and movement of equipment and materials. Unless specifically noted in Section 4.2.1, all buildings and uses would be able to function in their normal capacity during the construction period. All construction activities are expected to comply with the Caltrans Standard Specifications and provisions of the City of San Francisco noise ordinance in order to minimize construction disturbance and control noise, dust, vibration, and traffic within the Presidio and to neighboring residents. The visitor experience to the Presidio would be degraded during the construction period as the normal scenic and tranquil setting would be disrupted by the sights and sounds of construction. Visitors to and those working in the Presidio, however, would still have full access and use of the facilities at the park.

All build alternatives would involve standard construction techniques and require large-scale construction equipment and labor-intensive activities. General activities would include:

- site preparation and mobilization of equipment to the staging areas;
- clearing and grubbing, utility relocation, grading, and dewatering;
- foundation construction including excavation and pile installation;
- roadway construction, placement of reinforced concrete and precast concrete, installation of steelwork, and landscaping; and
- removal of existing facilities and demobilization.

Equipment would include drill rigs, pile and pneumatic hammers, backhoes, sheet piling, cranes, bentonite mixing and processing equipment, an on-site concrete batching plant, concrete trucks, and delivery trucks. Impact tools would be equipped with intake and exhaust mufflers while pavement breakers and jackhammers would be equipped with acoustically attenuating shields or shrouds.

Staging areas vary by alternative. The Replace and Widen Alternative – No Detour Option would only use the parking lot of the Post Exchange and Commissary as the primary staging area. For the Replace and Widen Alternative - Detour Option the primary staging would occur on the parking lot and the footprint of both the Post Exchange (Buildings 605 and 606) and Commissary (Buildings 610 and 653). The primary staging area for the Presidio Parkway Alternative would be the Post Exchange building footprint and parking lot. Each alternative would use a secondary staging area on the parking lot between Buildings 230 (Warehouse) and 1063 (Medical Supply Warehouse). Access to the buildings adjacent to the staging areas and throughout the Presidio would be maintained throughout the construction period.

Pile installation would be done with both driven and drilled techniques. Driven piles would be used only in those areas that have been determined to be a safe distance (approximately 60 meters [200 feet]) from historic structures in order to reduce the effects of vibration.

The designated haul routes within the Presidio during the construction period are Mason Street, McDowell Avenue and Lincoln Boulevard. The effects to traffic are discussed in Section 4.1.1.1.

## 4.1 COMMUNITY IMPACTS

The analysis of community impacts involved reviewing impacts of the Doyle Drive Project alternatives in the study area neighborhoods in relation to traffic, transit, bike/pedestrian facilities, noise, visual, environmental justice, employment, and community facilities and public services on both a temporary basis in terms of construction related impacts and on a long-term basis in terms of operational impacts of a new facility.

### 4.1.1 Social Impacts

#### 4.1.1.1 Traffic

Each of the Doyle Drive Project alternatives was analyzed to determine if they would result in adverse effects to the transportation system within the study area. Potential impacts were evaluated for different components of the system including Highway 101 and Doyle Drive, access ramps leading to and from Doyle Drive, local roadways and intersections providing access to and from the Presidio, transit, and bicycle and pedestrian facilities. Existing (year 2000) and future 2030 No-Build conditions were identified to establish baseline conditions. Future conditions are based on the travel demand forecasting model developed by the San Francisco County Transportation Authority. The model reflects ABAG's Projections 2002 demographic assumptions for the region, MTC's Draft 2001 Regional Transportation Plan for the San Francisco Bay Area (Adopted December 2001/Amended November 2002), and the Presidio Trust Implementation Plan (Trust, July 2000). Both long-term impacts and temporary impacts that would occur during construction were evaluated. The complete traffic study is in the Final Traffic and Transit Operations Report (DKS Associates, November 2004).

#### Temporary Impacts

**Ramp/Road Closures and Operational Changes.** During various construction stages in the project, some ramps or roadways would need to be closed for a period of time ranging from one to six months. The preliminary construction phasing has determined a number of instances where roadway lane capacity would be reduced. Because each closure affects traffic in a different corridor at different times of day, each of these projected traffic conditions were examined individually.

**General 2010 Traffic Conditions.** By 2010, traffic on major facilities is expected to grow, with most growth occurring mainly in the non-peak commute direction. Generally, mainline Doyle Drive volumes are not projected to change by more than 200 vehicles.

**Replace and Widen Alternative: Park Presidio/Doyle Drive Ramp Closures.** For the Replace and Widen Alternative, there are two major situations anticipated that could affect traffic. For both the No Detour Option and Detour Option, ramp closures would be required in the initial stages of the project. The two ramps proposed for closure are those that connect Park Presidio Boulevard northbound to Doyle Drive southbound, and Doyle Drive northbound to Park Presidio Boulevard southbound during a simultaneous six month period. While the Doyle Drive northbound to Park Presidio Boulevard southbound ramp may be closed for a longer duration, this particular situation represents the early critical "worst case" traffic diversion scenario. At a peak hour basis, the Park Presidio Boulevard to Doyle Drive southbound ramp is projected to carry 930 vehicles in the AM peak hour and 730 vehicles in the PM peak hour. The Doyle Drive northbound to Park Presidio Boulevard ramp is projected to carry 430 vehicles in the AM peak hour and 910 in the PM peak hour. The removal of these vehicles means that a total of 1160 vehicles would be diverted in the AM peak hour and 1640 in the PM peak hour to other ramps and streets. As a result of this closure, it is projected that most drivers (over 60 percent in each time period) would not use either Park Presidio Boulevard or Doyle Drive; these drivers would make their trips on Richmond district streets. The remaining 40 percent (about 510 in the AM peak hour and 730 in the PM peak hour) would travel up Park Presidio Boulevard and cut through the Toll Plaza Visitor's area to continue their trip. These trips would distribute evenly; half (or 20 percent overall) would cut underneath the Toll Plaza, and the other half would use Lincoln Boulevard to cross underneath Doyle Drive to cross between one side to the other. This is forecasted to result in 350 AM peak

hour vehicles and 100 PM peak hour vehicles traveling underneath the Toll Plaza in the peak direction, through this narrow roadway segment. Except for this localized increase in traffic in the toll plaza area, no other significant change in local Presidio traffic volumes is forecast to occur. Thus, other local roadways are not expected to have deterioration in traffic speeds, or resulting levels of service.

Appropriate actions would be to discourage traffic in the Toll Plaza area by warning motorists of the lane closure and encouraging alternate routes, as well as coordinating an overall trip reduction strategy as part of the Transportation Management Plan (TMP).

**Replace and Widen Alternative: Lincoln Boulevard Closure.** One rerouting of local Presidio traffic would occur during a three month period at the same time that the ramp that connects Park Presidio Boulevard northbound to Doyle Drive southbound is closed, early in the project. During Stage 2, Lincoln Boulevard near the National Cemetery is proposed for closure for a three month period. During this time, local traffic would be diverted to Halleck Street, Mason Street and McDowell Avenue. The most critical time period for this closure would be the PM, when 230 vehicles would be expected to use this diverted route westbound. As the detour roads have fewer than 50 vehicles forecast on them at peak hour, the additional traffic should not result in any adverse congestion.

**Replace and Widen Alternative: Marina/Richardson Merge and Diverge Relocation.** In Stage 3 of the Replace and Widen Alternative - No Detour Option, a division of the Marina and Richardson merge (northbound) and diverge (southbound) points would be required. As traffic speeds and capacities would be reduced for this period, an overall drop of 80 vehicles northbound and 340 vehicles southbound would occur on Doyle Drive in the AM. The PM volumes would drop by 160 vehicles northbound and 250 vehicles southbound. These vehicles would relocate to a variety of other streets, with no other local streets showing more than 100 vehicle increases in traffic. Therefore, no major efforts would be needed to reduce regional traffic volumes as a result of this shift beyond a general project-related traffic reduction strategy.

**Replace and Widen Alternative: Marina Boulevard Access.** In a later stage in the No Detour Option, the replacement of Marina Boulevard access would require a temporary rerouting of traffic south of the facility. This traffic would need to cross a temporary northbound Richardson Avenue roadway at an at-grade intersection. As there is also a temporary ramp proposed for much of the construction period to run from Doyle Drive northbound to Park Presidio Boulevard southbound and the temporary ramp may attract more traffic through the project site, this situation was tested with and without this temporary ramp in place.

The northbound Doyle Drive volumes would drop by 60 vehicles and the southbound by 220 vehicles. In the PM condition, the roadway is projected to have a drop of 160 vehicles in the northbound direction, and less than 10 vehicles in the southbound direction. The traffic is anticipated to disperse to a variety of other streets, with no other street showing traffic changes of more than 100 vehicles in a direction.

The new intersection created in this situation should operate satisfactorily, assuming that three outbound lanes are available on Richardson Avenue through this intersection, and that two left-turn travel lanes are available for traffic wishing to travel to Marina Boulevard. The high volume of PM peak hour right-turning traffic from the Marina detour (in addition to concerns about site distance) may also necessitate a signal control

Assuming that all design constraints are met, no additional actions beyond the normal traffic reduction strategy for the project would seem to be needed.

**Presidio Parkway Alternative: Lincoln Boulevard Closure.** During Stage 1 Phase 2 of the project, Lincoln Boulevard near the National Cemetery is proposed for closure for a three month period. During this time, local traffic would be diverted to Halleck Street, Mason Street and McDowell Avenue. This would occur during a period while the northbound Park Presidio Boulevard hook ramp to southbound Doyle Drive would also be closed. (Note: Halleck Street would be required to be opened when Lincoln Boulevard would be closed.) The most critical time period for this closure would be the PM, when 290 vehicles would be expected to use this diverted route westbound. As the detour roads have fewer than 50 vehicles forecast on them at peak hour, the additional traffic should not result in any adverse congestion.

**Presidio Parkway Alternative: Marina Boulevard Access with and without Doyle Drive to Park Presidio Ramp Closure.** For the Presidio Parkway Alternative, the “worst case” scenario is the point in the construction staging where traffic to and from Marina Boulevard would need to cross a temporary northbound Richardson Avenue traffic flow. As traffic flow varies between the Diamond Option and the Circle Drive option, both of these situations have been analyzed. Further, the effects of a proposed temporary ramp from Doyle Drive northbound to Park Presidio Boulevard southbound may attract additional traffic, so scenarios with and without this ramp were tested. A final traffic issue is the proposed closing of Halleck Street, which is required during majority of the construction period.

In this scenario, the substantially constrained outbound traffic on Richardson Avenue was tested at two lanes. In this instance, outbound Doyle Drive operated adequately in the AM peak hour, with less than 100 vehicles change on Doyle Drive. However, in the PM condition, the lack of three through lanes posed a substantial barrier to traffic, and over 1,000 vehicles shifted to other streets. About 250 vehicles would shift to Lincoln Boulevard, another 250 vehicles would use Park Presidio Boulevard to reach the bridge, and another 300 vehicles would avoid using the Doyle Drive to Park Presidio Boulevard southbound ramp. In the case where this ramp is closed, the traffic would divert to the toll plaza routing discussed in the Replace and Widen Alternative. The remaining vehicles would disperse to other local streets. Except for this localized increase in traffic in the toll plaza area, no other significant change in local Presidio traffic volumes is forecast to occur. Thus, other local roadways are not expected to have deterioration in traffic speeds, or resulting levels of service.

For this reason, a full three lanes would be needed to carry the volumes coming from Richardson Avenue. With three lanes, the new intersection created in this situation should operate satisfactorily and traffic diversion would not occur. As in the Replace and Widen Alternative, two left-turn travel lanes would need to be available for traffic wishing to travel to Marina Boulevard. The high volume of PM peak hour right-turning traffic from the Marina detour (in addition to concerns about site distance) may also necessitate a signal control.

No substantial congestion is anticipated on roadways within the Presidio. Generally, all of these local roadways are forecast to have stable or slightly lower traffic volumes, even with the closure of Halleck Street. Once Girard Road is opened, it will experience increased traffic, but this even is expected as part of the implementation of the Presidio Parkway Alternative.

These strategies would need additional investigation as part of the TMP, and implementation monitoring with interactive traffic management would be required to alleviate this upcoming bottleneck.

The closure of Halleck Street during the construction of the Presidio Parkway Alternative would result in increased traffic on McDowell Avenue during the PM peak hour, as traffic from the Main Post area could not use Halleck Street. While the volumes are increased, the forecast volumes should remain low enough to enable McDowell Avenue to operate without significant delays. The AM peak hour traffic issues are forecast to be much less, as the base traffic is much lower on Halleck Street and McDowell Avenue during this time period.

During the construction period for any alternative, the majority of equipment and materials would be transported to the site using designated haul roads during daytime hours to minimize disturbance to the surrounding residential neighborhoods and to comply with the City of San Francisco construction noise ordinance. Doyle Drive from the west and Mason Street would be the primary routes for hauling materials. McDowell Avenue would also be used. Lincoln Boulevard adjacent to the Park Presidio Interchange would be needed as a secondary access for construction along the south side of Doyle Drive. Additional haul roads, including completed detour roads, would be identified prior to the start of construction. Following construction, all haul roads would be restored to existing conditions or as defined by the land managing agency.

Construction period traffic management would be addressed in the TMP created during final design for the project. Caltrans would implement the TMP in coordination with the Cooperating Agencies (FHWA, NPS, Trust, Veterans Administration (VA), GGBHTD, and the SFCTA). The TMP would develop strategies to

address general area-wide traffic reduction and management to reduce traffic in the construction area, and minimize both Doyle Drive traffic and diversions to low-speed park roads during construction. An overarching strategy for construction zones begins with encouraging traffic to use alternate routes and reducing the area-wide traffic demand.

### Long-Term Impacts

**Doyle Drive Traffic.** Under the No-Build Alternative, there would be no improvement to traffic safety and future traffic operations on Doyle Drive may be restricted. Although the high-viaduct was retrofitted in 1996 to withstand a maximum credible earthquake (MCE) it is only through extensive monitoring and substantial maintenance efforts that the high-viaduct maintains its current live-load carrying capacity without posting<sup>11</sup>. Additional retrofit efforts would not improve the poor seismic safety standards of the low-viaduct and the potential for collapse of the structure. The seismic risk assessment undertaken in 1998 assumed that the low-viaduct would be replaced in 5 to 10 years and that given its current designation as “Structurally Deficient” only stop-gap interim rehabilitation measures to maintain traffic would be implemented. Due to the limited load bearing capacity of the roadway, future traffic operations may be limited to automobiles only, forcing trucks and buses to use other connections to and from the North Bay.

In the future, changes in traffic conditions and volumes within the Doyle Drive corridor are expected due to regional growth and implementation of the development plans of the PTMP. Compared to existing conditions (year 2000), traffic volumes and travel times are expected to increase and levels of congestion are expected to worsen by 2030.

Compared to 2030 No-Build conditions, the difference in traffic volumes between each of the build alternatives would only vary by eight percent within the study area and would result from the access option used. Mainline Doyle Drive traffic flows would increase by less than ten percent over year 2000 conditions for each of the 2030 scenarios. Traffic volumes on Doyle Drive with the Presidio Parkway Alternative would increase by two percent compared to 2030 No-Build and Replace and Widen Alternatives conditions. Off-peak traffic volumes compared to existing conditions would experience greater growth. Under 2030 No-Build conditions and the Replace and Widen Alternative, off-peak volumes would increase by 38 to 47 percent compared to 2000 conditions. They would increase by 40 to 49 percent with the Presidio Parkway Alternative. Compared to 2030 No-Build and Replace and Widen conditions, the Presidio Parkway Alternative off-peak travel would increase only slightly, by less than two percent.

There would be little change in travel times for trips within the study area with the Replace and Widen Alternative compared to 2030 No-Build conditions. Travel times would decrease slightly (on average, by less than one minute) with the Presidio Parkway Alternatives. However, the introduction of additional signals on Richardson Avenue and Marina Boulevard would result in longer travel times from other points within the study area for the Presidio Parkway Alternative.

Overall traffic operations on U.S. Highway 101 are expected to remain the same or improve for each of the build alternatives compared to 2030 No-Build conditions. There would be no adverse effects on neighborhood travel due to changes on U.S. Highway 101.

**Local Street Volumes.** Although traffic volumes on local streets within the Presidio are not forecast to reach congested traffic conditions, changes in overall traffic volumes by alternative may influence the overall quality of the park experience, as each vehicle adds some noise and safety concerns to persons using the park.

In the AM peak hour, the highest volumes are expected at the Presidio and Lombard Gates. The volumes at Lombard Gate are forecast to increase by the design year in the No-Build and Replace and Widen Alternatives, while the new access provided by the Presidio Parkway Alternative options would result in less traffic through the Lombard Gate for morning traffic going into the Presidio. The Presidio Gate volumes vary by less than 50 vehicles between any alternative in the design year.

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<sup>11</sup> Limiting the weight of vehicles permitted on the structure

Another area of increased traffic demand is Halleck Street, where the No-Build and Replace and Widen Alternatives forecast increased traffic. This additional traffic would be ameliorated when direct access is provided between the Main Post area and Doyle Drive in the Presidio Parkway Alternative options. Mason Street traffic would increase in the Replace and Widen Alternative, once the Letterman access ramp from Richardson Avenue is eliminated in this alternative. Finally, Girard Road volumes would increase once the connection to Doyle Drive is made under the Presidio Parkway Alternative.

The PM conditions generally show comparable results, with westbound Presidio Gate traffic decreasing with the Presidio Parkway Alternative options. This alternative would also reduce traffic volumes on Halleck Street and Mason Street. Generally the volume changes would be attributed to the introduction of direct access between the Main Post area and Doyle Drive.

#### **4.1.1.2 Transit**

Access to MUNI transit would be improved with new bus stops located in the eastern portion of the Presidio. Connecting the PresidioGo shuttle service with the new bus stops would provide improved links between transit options and access to destinations within the Presidio. Depending on the alternative, new bus stops would be placed along Richardson Avenue and Gorgas Avenue.

##### **Temporary Impacts**

Bus service would be maintained into the Presidio during construction. Bus stops may be temporarily relocated due to construction activity.

##### **Long-term Impacts**

Travel times are expected to increase about one minute on all transit routes in peak directions in year 2030 when compared to year 2000 conditions. However, the effect of each alternative travel time varies according to the transit route. Because the Doyle Drive corridor mainly affects Golden Gate Transit (GGT) and longer MUNI routes, the impacts to overall transit travel time of about one minute or less per trip is less than five percent of the 45 to 120 minute one-way trip time on these routes.

#### **4.1.1.3 Bicycle and Pedestrian Access**

##### **Temporary Impacts**

Bicycle and pedestrian access would be maintained within the study area during construction. Some bicycle and pedestrian facilities may be temporarily closed or relocated but access to all buildings would be maintained.

Under the Replace and Widen Alternative, bicycle and pedestrian access at all locations throughout the study area would be maintained during construction with the exception of some nighttime roadway and path closures which would require the temporary detour of bicycle and pedestrian traffic.

Under the Presidio Parkway Alternative, bicycle and pedestrian access would be closed along Bank Street from the Main Post to the Commissary parking area until the Main Post tunnels are built. While Halleck Street is closed, it is anticipated that bicycle and pedestrian access from Crissy Field to the Main Post would be maintained via Marshall Street. Portions of Lincoln Boulevard and Crissy Field Avenue would experience temporary closures. Access across the Doyle Drive corridor would also be maintained throughout construction at Crook Street, along McDowell Avenue/Crissy Field Avenue, at the Lincoln Boulevard/Park Presidio Interchange, and at the Lincoln Boulevard/Golden Gate Bridge Toll Plaza.

##### **Long-term Impacts**

With the No-Build and Replace and Widen Alternatives, bicycle and pedestrian routes and access would be the same as the existing conditions. The Presidio Parkway Alternative would provide improved pedestrian access and allow connections between the Main Post and Crissy Field, as well as provide pedestrian access along Girard Road from Marina Boulevard and Mason Street to the Main Post. Bicycle and pedestrian crossings would also be facilitated at new signalized intersections at Girard and Gorgas Avenues.

#### 4.1.1.4 Noise

A detailed analysis of noise and vibration is available in the Revised Noise and Vibration Study (Environmental Science Associates, September 2004) which was conducted following guidelines in 23 CFR 772 and Caltrans' Traffic Noise Analysis Protocol. Compliance with 23 CFR 772, the FHWA's noise standard, satisfies NEPA requirements with respect to traffic noise impacts. The noise and vibration analyses were also conducted following methodologies that are consistent with CEQA. In addition, the analysis considered City of San Francisco Noise Ordinance requirements.

The land uses most sensitive to noise occur near the eastern and western limits of Doyle Drive. Within the areas to the east, there are residential land uses. The Palace of Fine Arts is also located with this area. At the western limits of the roadway, residential enclaves are located immediately north and south of the potential construction activity. North of Doyle Drive throughout the construction limits, most of the property includes commercial, warehouses and industrial uses that are much less sensitive to construction noise. A notable exception is the Crissy Field Center.

Sensitive receptors within the Doyle Drive corridor include residential areas along and in the vicinity of Armistead Road (northwest of the junction of Highway 1 and Doyle Drive), Storey Avenue (north of Ruckman Avenue), Riley Avenue, General Kennedy Avenue, and Girard Road. In some cases, these residential areas are in active use. Other residential areas appear to be vacant but are designated as residential and are not slated for removal under the Presidio's GMPA. These areas are presumed to be available for residential purposes in the future. Additional noise-sensitive uses within the Doyle Drive corridor include the Post Chapel and Crissy Field. Sensitive receptors east of the Presidio include the residences immediately east of the Palace of Fine Arts along Baker Street, along the south side of Marina Boulevard, along the east side of Lyon Street north of Lombard, and along both sides of Richardson Avenue.

Existing conditions indicate the noise environment within the Doyle Drive corridor is typical of urban highway corridors. Of the 35 monitoring receptor sites, 29 already approach or exceed their "Noise Abatement Criteria" (NAC). The fact that existing levels already approach or exceed the NAC in many instances is due to the proximity of noise sensitive land uses to the roadways and the increase in traffic over the life of Doyle Drive and other local roads and streets.

#### Temporary Impacts

The extent and exposure to construction noise would vary greatly depending on the alternative selected and the distance sensitive receptors are from the noise sources. With the possible exception of pile driving, most construction noise levels would be in range of 85 to 90 dBA within 15 meters (50 feet).

Several specific sites have been identified where construction noise impacts are of special concern. One of those sites is the Crissy Field marsh and shoreline areas. Due to the distance from most construction activities and the active nature and use of this site, any potential construction noise impacts would be of short duration and could be minimized or eliminated by the application of abatement options. Vibration concerns likewise are not anticipated to create conditions which would adversely impact the area. Although construction noise impacts are not anticipated for the Crissy Field and Crissy Marsh area there still could be a reduction in the levels of participation among the volunteer groups that help maintain Crissy Field and Crissy Marsh due to a perception that the construction related noise, dust, and vibration could adversely impact the volunteer experience. Presidio Park Stewards, school groups, special groups, and community service workers provide approximately 11,750 person hours of maintenance annually.<sup>12</sup>

At the Crissy Field Center, construction noise impacts associated with all build alternatives are not expected to adversely impact the use and function of the center unless pile driving activities take place. Since numerous options exist to eliminate the need for pile driving, no construction period adverse impacts are anticipated. Since many of the activities are conducted indoors, the building envelope creates at least a 20 dBA reduction over outdoor noise levels. No other sources of construction noise impacts are anticipated in this area although short-term impacts could occur. One source of short-term noise is the back up alarms of

<sup>12</sup> Rick Foster, Golden Gate National Recreation Area, personal correspondence, September 2004.

construction vehicles. Overall, there would not be an increase in noise levels at the Crissy Field Center associated with the detour facility of the Replace and Widen Alternative – Detour Option.

Potential construction impacts on the Cavalry Stables area would vary greatly depending upon the alternative selected and the construction methods employed. As noted above, pile driving is not anticipated to be part of the project, although demolition activities could create short-term higher noise levels that could cause a startle reaction in the horses.

The area around Stilwell Hall was also identified as an area where construction noise impacts would be of concern. Located in the vicinity of the Cavalry Stables, any special efforts to reduce construction or demolition noise for the stables would have a positive benefit for the area around Stilwell Hall. Because of the close proximity of construction activities to the building, care would be taken to ensure that the use of Stilwell Hall could be maintained throughout the construction phase.

Residences along Richardson Avenue and Marina Boulevard could be exposed to construction noise in excess of 89 dBA while construction activities are conducted at the eastern end of the alignment.

A number of measures could be taken to reduce construction noise exposure at noise sensitive sites and to meet appropriate requirements. These measures would be consistent with Caltrans and NPS policies, and could include the following:

- Equipment used for construction activities should not exceed 86 dBA (L<sub>max</sub>) at a distance of 15 meters (50 feet) based on the Caltrans Traffic Noise Analysis Protocol, and no piece of construction equipment should exceed 80 dBA at a distance of 30 meters (100 feet) based on the San Francisco Noise Ordinance.
- Impact tools and equipment should be equipped with intake and exhaust mufflers recommended by manufacturers and approved by the City of San Francisco Department of Public Works (based on the San Francisco Noise Ordinance).
- Pavement breakers and jackhammers should be equipped with acoustically attenuating shields or shrouds recommended by the manufacturers and approved by the City of San Francisco Department of Public Works.
- Construction activity between the hours of 8:00 p.m. and 7:00 a.m. should be prohibited if the noise level created is greater than 5 dBA above the ambient at the nearest property line. It should be noted that under certain circumstances, a special permit could be granted by the City of San Francisco Department of Public Works if nighttime construction is required.

To minimize noise impacts from pile driving and other construction equipment, consideration would be given to the use of alternate construction methods when near sensitive receptor locations. Examples are pre-drilling of pile holes, avoiding cracking and seating methods for resurfacing concrete near sensitive receptors, and the use of rubber tired as opposed to tracked vehicles.

Through implementation of appropriate vibration management measures including pre-construction surveys, ground vibration monitoring and setting appropriate construction vibration limits, there would be minimal impact associated with the construction of any build alternative.

### **Long-term Impacts**

The long-term noise impacts are associated with the future traffic generated noise levels. For the year 2030, noise levels under the No-Build Alternative shows a range from 53 to 80 dBA, while the Replace and Widen Alternative has a range from 53 to 81 dBA. The Presidio Parkway Alternative - Diamond Option shows a range from 54 to 77 dBA while the Circle Drive Option has an identical range. In general, the overall traffic noise environment is not expected to change noticeably, regardless of the alternative selected. The impacts are very location specific and tend to be concentrated in the residential areas along Storey Avenue and Armistead Road (with the Merchant Road slip ramp option), the Battery areas, and the residential and commercial uses along Richardson Avenue due to the close physical proximity of the roadway to the homes,

often less than 6 meters (20 feet). In these areas the noise levels either equal or slightly exceed the existing NAC.

No adverse noise impacts associated with any of the alternatives are expected at the Crissy Field Center, the Crissy Field area north of Mason Street, the Cavalry Stables, or Stilwell Hall.

No additional noise impacts are expected due to the tunnel portal and exhaust fans associated with the Presidio Parkway Alternative.

During the design process for the preferred build alternative for Doyle Drive (assuming that the No-Build Alternative is not the preferred alternative), a detailed noise analysis should be performed. The detailed analysis would determine if noise barriers are reasonable and feasible abatement measure to reduce predicted traffic noise impacts at certain locations within the Doyle Drive corridor.

#### **4.1.1.5 Visual**

The methodology used in the Draft Revised Visual Impact Assessment (PAM, July 2004) was developed using guidelines provided in the FHWA's Approach to Visual Assessment of Highway Projects (FHWA, not dated). The analysis of potential community impacts considers viewers responses to changes in visual resources. Community disruption, orientation and privacy were the set of criteria used to evaluate how typical viewers respond and perceive the relationship between a transportation corridor and the surrounding neighborhood.

Both changes in physical and visual conditions can result in a perception of community disruption, including changes that make the project more visible and obstructive. This criterion applies mainly to views to the road from residential, recreational, and office commercial viewer groups. Orientation refers to the visual references along a travel route that gives travelers information on their regional and local location, and can improve a sense of direction or perceived safety. The impact evaluation considers the opening up of views to recognized landscape features or potential continuous view blocking along travel routes. The privacy criterion considers direct-sight lines in residential neighborhoods from the roadway to adjacent homes and gardens.

#### **Temporary Impacts**

Temporary visual impacts at locations throughout the project corridor are expected during construction of any build alternative. During the construction period, lasting approximately four to five years, construction activities would affect the existing visual setting. Visually intrusive signs of construction would include heavy equipment, landscape removal, grading, and stockpiles of materials. In addition, temporary detour structures associated with the Replace and Widen Alternative – Detour Option and temporary or permanent removal of some buildings would disrupt the visual aesthetics of the Presidio and adjacent neighborhoods. Following construction, detour structures would be removed and landscaping would be restored throughout the construction corridor.

#### **Long-term Impacts**

Under the No-Build Alternative, the Presidio and surrounding neighborhood visual effects would remain the same as the existing conditions. Doyle Drive would pose the same visual barrier between the northern areas of the Presidio, such as Crissy Field and those areas to the south of Doyle Drive. The visual cohesiveness of the neighborhoods immediately surrounding the Presidio would also remain the same as existing conditions as no new visual elements would be introduced into the area.

Overall, the changes to the Doyle Drive corridor that would occur under the Replace and Widen Alternative would have a negligible effect on neighborhood visual resources. However, in three locations, the alternative would have a minimally adverse effect. Under the Replace and Widen Alternative – No Detour Option, the proposed increased 2-meter (6.6-foot) elevation of Doyle Drive would place it into view for workers, residents and recreation users in the Main Post and Girard Road areas. From this viewpoint, Doyle Drive is currently not visible. Also, under the Replace and Widen Alternative (for both the No Detour and Detour options) the high-viaduct replacement would be removed and reconstructed closer to the Cavalry Stables and McDowell

Avenue viewpoints and would increase Doyle Drive's visual dominance in this area for workers, residents and recreation users.

The Presidio Parkway Alternative would result in two locations with adverse visual impacts. For the tunnel portion of the alternative near the National Cemetery, motorists' existing views of the National Cemetery, woodlands, Main Post and Crissy Field would be completely obstructed. This change would affect approximately 105,000 to 108,000 motorists daily in 2030. The high-viaduct section located east of the Park Presidio interchange would be removed and reconstructed and moved closer to the McDowell Avenue and Cavalry Stables West viewpoints. Although the distance between the support columns would be larger and allow for a clearer view of Stilwell Hall, the Marin Headlands and the Bay beneath Doyle Drive, the dominance of Doyle Drive would increase within the view and thereby reduce the overall visual quality. This would be a minimally adverse impact.

There would be an overall improvement in intactness and unity of the visual elements in the areas with the removal of the at-grade and low-viaduct elements of Doyle Drive and their replacement with tunnels. With the removal of the low-viaduct, the views to the north along Halleck Street and Gorgas Avenue would be opened for residents of these areas to include the Bay, Golden Gate Bridge, and Marin Headlands.

Under all build alternatives there would be no visual effects to the residents in the Marina and Cow Hollow neighborhoods as only minor changes to Doyle Drive, such as a landscaped median, would be noticeable from the area. Doyle Drive would remain as a key visual element.

#### **4.1.2 Environmental Justice Impacts**

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed by President Clinton on February 11, 1994, requires Federal agencies to take the appropriate and necessary steps to identify and address the "disproportionately high and adverse" effect of Federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law.

Transportation projects can potentially create social impacts on a community by affecting transportation choices or community facilities that are used by minority or low-income populations. A review of population and income (poverty status) data for the Doyle Drive Project indicates that the study area does not contain higher than average concentrations of minority and low-income groups. Therefore, using the criteria defined in Section 2.1, these groups are not located within areas that could be subject to disproportionate impacts.

Although the minority and low-income residents would not be affected disproportionately by the project, the potential for negative impacts to these groups was evaluated for the Presidio facilities that are used by these groups. This analysis looked at the changes, both temporary and permanent, to the buildings used for these programs and access, both transit and private vehicles, to these buildings.

#### **No-Build and Replace and Widen Alternatives**

Under these alternatives, Building 603, which currently houses the Crissy Field Center, would be maintained for cultural and educational purposes. The building would not be temporarily or permanently displaced by either alternative. Also, Buildings 1151 and 1152 which are currently occupied by the YMCA pool and gym respectively and the two Swords to Plowshares buildings (Buildings 1029 and 1030) would not be temporarily or permanently displaced by either alternative. Access to all facilities, including ADA approved access to the Crissy Field Center, would be maintained during the construction period and during the long-term operation of Doyle Drive.

No temporary or long-term noise impacts are expected at the Crissy Field Center or Swords to Plowshares buildings. Current noise conditions at the YMCA pool and gym exceed the NAC. Noise levels above the NAC would remain with implementation of either the No-Build or Replace and Widen Alternative.

No significant or adverse impacts to community facilities serving minority or low-income populations would occur with these alternatives.

### **Presidio Parkway Alternative**

There are two design options associated with the Presidio Parkway Alternative. There would be no temporary or permanent displacement of Buildings 603, 1029, 1030, 1151 and 1152 associated with the Diamond option of the Presidio Parkway Alternative. However, Building 1151 (YMCA Pool) would be permanently displaced with the Circle option of the Presidio Parkway Alternative. However, because the use of this facility is not oriented towards serving minority and low-income populations, the displacement of this building would not disproportionately impact environmental justice populations. Access to all facilities, including ADA approved access to the Crissy Field Center, would be maintained during construction and during the long-term operation of Doyle Drive.

No temporary or long-term noise impacts are expected at the Crissy Field Center or Swords to Plowshares buildings. Current noise conditions at the YMCA pool and gym exceed the NAC. Noise levels above the NAC would remain with implementation of the Presidio Parkway Alternative.

No adverse impacts to community facilities serving minority or low-income populations would occur with this alternative.

### **4.1.3 Employment Impacts**

During the construction period, temporary relocation of certain buildings could be required which would affect employees working in those buildings. The Replace and Widen Alternative – No Detour Option would not temporarily relocate any buildings, but the Detour Option would require either the temporary or permanent removal of four Mason Street Warehouse buildings (Buildings 1182 – 1185). The temporary or permanent removal would affect the 10 employees currently working in Buildings 1182 and 1185. Relocated buildings would be unavailable for use during the relocation period.

In addition to the temporary removal of buildings, each build alternative would require the permanent removal of buildings. Table 4-1 shows the buildings to be removed, the number of employees to be displaced and the alternative for which the removal is required. A discussion of compensation for the temporary and permanent loss of buildings is presented in Section 4.2.1.4.

**TABLE 4-1  
EMPLOYEES PERMANENTLY DISPLACED**

Building #	Organization Affected	Employees	Alternatives for which building would be removed
201	Trust	10	Presidio Parkway
204	Trust and NPS	15	Presidio Parkway
230	Trust and NPS	10	Presidio Parkway
231	Trust	8	Presidio Parkway
610	Sports Basement	26 <sup>1</sup>	Replace and Widen – Detour Option
1151	Presidio Community YMCA (pool)	20	Presidio Parkway – Circle Drive Option
1158	Presidio Dance Theatre	5	Replace and Widen – No Detour Option; Presidio Parkway
1182	Office for San Francisco Exploratorium	5	Replace and Widen – Detour Option
1185	Office for San Francisco Maritime National Historic Park	5	Replace and Widen – Detour Option

Source: The Presidio Trust, 2004; Judy Bretschneider, Presidio Dance Theatre, 2004.

Notes: <sup>1</sup> Data provided by Corey Olender, Woodmont Real Estate Services, 2004.

Construction of either build alternative would require a fairly large workforce. Table 4-2 shows the person-years of labor calculated for each alternative. Construction cost estimates are preliminary at this stage and include labor, materials, and engineering and design. It is anticipated that local employment would be created due to the project and most of the construction labor force would consist of workers already residing in the Bay Area. However, the need for special skilled labor or a shortage in the labor force may require workers to be obtained from elsewhere. If so, local housing provisions such as rooms, motels and rental units would need to be available. The Bay Area has over 1 million rental units (U.S. Census 2000), which should adequately cover the temporary housing demand. Based on this, it is expected that the Doyle Drive Project would not lead to impacts in terms of labor supply or housing market under any alternatives under consideration.

**TABLE 4-2  
POTENTIAL PROJECT CONSTRUCTION EMPLOYMENT**

	Alternative	Construction Cost <sup>1</sup> (\$)	Construction <sup>2</sup> (person years)	Average Number of Workers Per Year <sup>3</sup>
1	No-Build	N/A	N/A	NA
2	Replace and Widen – No Detour Option	299,207,500	772	154
	Replace and Widen – Detour Option	335,104,000	864	173
5	Presidio Parkway Alternative	380,582,400	982	196

Source: Parsons Brinckerhoff, May 2004.

Bureau of Labor Statistics, available at: <http://www.stats.bls.gov/blswage.htm>.

Notes: <sup>1</sup> These preliminary cost estimates are for year 2004 and are limited to internal team use for reference only.

<sup>2</sup> Construction (person years) = Labor costs (\$) / Average annual wage for highway and street construction (\$).

Assumptions:

Labor costs = 19% of construction costs

(SFOBB East Span Seismic Safety Project – Community Impact Assessment, September 1998)

Average annual wage for highway and street construction = \$73,625 (Bureau of Labor Statistics)

<sup>3</sup> Average number of workers per year equal to construction person years divided by the total number of construction years = 5

#### **4.1.4 Community Facilities and Public Services Impacts**

##### **4.1.4.1 Emergency Services**

###### **Temporary Impacts**

During the construction period, temporary road detours would be required to route traffic around construction areas. All detours would be designed to ensure emergency vehicle access. In general, vehicle travel through construction areas would be delayed due to unfamiliarity of detour route and motorists slowing to view construction activities. Therefore, it is expected that emergency vehicle response times would be delayed from existing conditions but access routes would remain.

Short-term closures would be required for various cross streets below Doyle Drive, which may affect emergency access routes. Closures would take place in off-peak hours, generally at night. In addition, various ramps to Doyle Drive would experience temporary closures, which could affect emergency access response. Coordination of the closures with appropriate emergency services would be addressed in the Transportation Management Plan.

Using the Mason Street warehouses as an example, under 2010 No-Build conditions, average travel time from the fire station located in Building 218 on Lincoln Boulevard to the Mason Street warehouses is estimated to be approximately one minute from the station to the warehouses via Halleck Street to Mason Street. However, when Halleck Street is closed under the build alternatives in 2010, emergency vehicles would have to reach the Mason Street warehouses via a detour route via Lincoln Boulevard, McDowell Avenue, and Mason Street, resulting in an average travel time of four and a half minutes. This is an average travel time, however, and emergency vehicle access response times may be faster. When Lincoln Boulevard is closed Halleck Street would remain open.

###### **Long-term Impacts**

Emergency access would not change under the No-Build Alternative. Roadway improvements associated with the Replace and Widen Alternative would provide some limited improvement in emergency access. New roadway and intersection configurations would have beneficial changes to existing emergency service routes and response times. The roadway configuration and improvements associated with the Presidio Parkway Alternative would provide improved access for emergency vehicles to and from the Presidio and surrounding areas.

To deal with emergencies in the tunnels of the Park Presidio Alternative, an emergency response plan would be developed and coordinated with various agencies including Caltrans, the California Highway Patrol, GGBHTD, Trust and San Francisco fire department.

##### **4.1.4.2 Utilities**

It is anticipated that certain components of the utility system in the Presidio would need to be relocated as part of the Doyle Drive Project. For portions of the utility system that cannot be permanently relocated, temporary facilities would be provided during construction to facilitate continuous utility operations.

The utility relocation plan (LTD Engineering, Inc, 2004) assumes that all utilities affected by the proposed Doyle Drive Project alternatives would be relocated to provide the same level of service as the existing systems. For the Presidio Parkway Alternative, there would be changes to the stormwater system associated with the Tennessee Hollow drainage corridor. The plan to restore the Tennessee Hollow drainage corridor provides an opportunity to reroute some affected parts of the stormwater system to a discharge point in the proposed Tennessee Hollow corridor. This arrangement would simplify the stormwater system and minimize relocation costs.

There would be no impacts to the utility systems as continuous service is planned to be maintained during construction. Overall, the utility relocations would also improve and upgrade the existing utility system and include provision for additional equipment backup capabilities.

Below are brief descriptions of the utility system elements that would be affected or need to be relocated. In some cases, where allowable, utility elements could be relocated before the initial construction phase.

### **Water System**

The pump stations or reservoirs in the Presidio would not be affected by any of the alternatives under consideration in the Doyle Drive Project. However, pipelines of up to 250 millimeters (10 inches) in diameter would need to be relocated (two water mains would be relocated for the Replace and Widen Alternative; three water mains would be relocated for the Presidio Parkway Alternative) (LTD Engineering, Inc., 2004).

### **Sewer System**

As discussed previously, the existing sewer system is comprised of gravity flow pipelines, pump stations and forcemains. No changes would be necessary to the sewer system for the Replace and Widen Alternative. The Presidio Parkway Alternative would require the relocation of a sanitary sewer to the south side of Doyle Drive along Lincoln Boulevard, and the relocation of an existing pump station in the vicinity of the Post Exchange building. Several gravity sewer and mains of up to 460 millimeters (18 inches) in diameter would also require relocation (LTD Engineering, Inc., 2004).

### **Stormwater System**

The Replace and Widen Alternative would require the construction of a 610-millimeter (24-inch) stormwater interceptor to replace an existing ditch system on the north side of Doyle Drive in the vicinity of the Commissary. The Presidio Parkway Alternative would require the construction of two new stormwater interceptors, one along Lincoln Boulevard and the other to divert flow to the restored Tennessee Hollow drainage. A new outlet to the restored Tennessee Hollow drainage would also be constructed. Placement of the storm lines would take place during the summer when the utilization rate is minimal as opposed to the critical winter months (LTD Engineering, Inc., 2004).

### **Power System**

For the Replace and Widen Alternative, the relocation of high voltage power lines to underground conduits would occur before construction. The location is the north side of Doyle Drive at its east end. Underground transmission lines located along Crissy Field Avenue would also require relocation. For both alternatives, the underground power distribution systems and the transmission line serving the Golden Gate Bridge would be affected, requiring relocation. For the Presidio Parkway Alternative, temporary high voltage distribution service installed at the beginning of the project would be moved underground after tunnel completion. Some high voltage power lines would be relocated (LTD Engineering, Inc., 2004).

### **Natural Gas System**

For the Replace and Widen Alternative, two 102-millimeter (4-inch) diameter gas lines located near the east end of the low-viaduct would require relocation. For the Presidio Parkway Alternative, the compressed natural gas vehicle fueling station operated by the Trust would need to be physically transferred from its original location to a location selected by the Trust (LTD Engineering, Inc.). Existing pipelines of up to 150 millimeters (6 inches) in diameter that are part of the distribution system would also need to be relocated.

### **Telecommunication System**

Several communication ducts and associated cables would need to be relocated. The current system is entirely underground and, therefore, the form of relocation for these telecommunication lines would be temporary poles at an at-grade level. For the Replace and Widen Alternative, the underground communication lines (copper and fiber optic cables) located on the north side of Doyle Drive at its east end would be relocated before construction began. For the Presidio Parkway Alternative, a similar relocation would occur for the existing underground communication lines located on the south side of Doyle Drive near the National Cemetery. Communication lines would also be relocated to the new Halleck Street (LTD Engineering, Inc., 2004).

## 4.2 LAND USE IMPACTS

This section describes the impacts of the proposed alternatives for the Doyle Drive Project on existing and planned land uses and includes an analysis of the temporary and permanent removal of buildings (Section 4.2.1), an analysis of the impacts to parking (Section 4.2.2), and an analysis of the impacts to the land uses of the various planning areas in the Presidio in addition to the surrounding areas (Section 4.2.3).

### **4.2.1 Temporary Relocation and Permanent Removal of Existing Buildings in Doyle Drive Right-of-Way**

All of the Doyle Drive Project alternatives would result in the temporary and/or permanent removal of buildings in the study area. Temporary removals and returns and permanent removals were estimated using preliminary design drawings. When a locally preferred alternative (LPA) is adopted and the design is finalized, it will be further studied. This could result in a reduction or an increase in the number of buildings removed. These removals could involve a number of different land uses, including residential, office, infrastructure, warehouse, institution, retail, and recreational (see Appendix D for a list of buildings and their existing and future use).

The right-of-way (ROW) for the Doyle Drive Project would require between 4,000 and 193,000 square feet of buildings<sup>13</sup>, or less than one percent and 3.5 percent respectively of the 5.6 million total square feet identified under the Final Plan alternative of the PTMP.<sup>14</sup> The Trust would be compensated for the temporary removal and return or permanent removal of Presidio buildings in the Presidio as part of the ROW acquisition process. For this analysis it is assumed that the actual land would be transferred between the Trust and the FHWA as a Federal land transfer under 23 US Code 317<sup>15</sup> and the Trust would be compensated for the buildings that are in the alternatives' construction footprint. Direct property acquisition would require implementation of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended and the Civil Rights Act of 1964, providing for relocation assistance services to affected homeowners, renters and tenant businesses. In addition, the Acts require that residential and commercial property owners be paid fair market value of any property acquired as a result of the project. Federal agencies would be compensated in accordance with appropriate laws and procedures. The Presidio Trust has not completed their evaluation of the assumptions, methodology and results contained herein and as such do not agree with the findings. Section 4.2.3 provides a detailed discussion of the potential impacts to the existing land uses.

Table 4-3 provides a summary of potentially affected buildings that could be potentially temporarily removed and returned or permanently removed as a result of the proposed project alternatives. The No-Build Alternative would not require any temporary removals and returns or permanent removals. The Replace and Widen Alternative – No Detour Option would require the fewest temporary removals and returns and permanent removals of the build alternatives with only Building 1158 being permanently removed. The Presidio Parkway Alternative and associated options would require the most permanent removals. The Presidio Parkway Alternative would also potentially result in the temporary displacement of Building 106.

<sup>13</sup> 4,000 square feet for the Replace and Widen Alternative - No Detour Option and 193,000 square feet for the Replace and Widen Alternative - Detour Option. Calculated by Parsons Brinckerhoff for this report.

<sup>14</sup> PTMP, Attachment B: Final EIS Land Use Alternatives: Land Use Program by Planning Area, The Presidio Trust, 2001

<sup>15</sup> It is acknowledged that the transfer of the land between the Presidio Trust and the Federal Highway Administration as a Federal land transfer under 23 US Code 317 is currently under negotiation and the assumptions used in this analysis could change.

**TABLE 4-3  
BUILDINGS TEMPORARILY REMOVED AND RETURNED  
OR PERMANENTLY REMOVED BY ALTERNATIVE**

<b>Alternative/Building</b>	<b>Temporarily Removed and Returned</b>	<b>Vacant During Construction</b>	<b>Permanently Removed</b>	<b>Total Building Area Permanently Removed Sq Meters (Sq Feet)</b>	<b>Existing Use</b>
<b>No-Build</b>	None	None	None		None
<b>Replace and Widen – No Detour Option</b>					
Building 1158			✓	387 (4,166)	Presidio Dance Theatre
<b>Replace and Widen – Detour Option</b>					
Buildings 1182 <sup>1</sup>	✓			1,122 (12,077)	Storage
1183 <sup>1</sup>	✓			1,195 (12,863)	Vacant
1184 <sup>1</sup>	✓			1,125 (12,109)	Office – Vacant
1185 <sup>1</sup>	✓			1,263 (13,595)	Office
605			✓	3,932 (42,324)	Vacant
606			✓	689 (7,416)	Vacant
610/653			✓	8,614 (92,720)	Retail
<b>Presidio Parkway – Diamond Option<sup>2</sup></b>					
Buildings 106		✓		322 (3,466)	Office
201			✓	1,064 (11,453)	Storage & Office
204			✓	1,128 (12,142)	Office
205			✓	11 (118)	Sewer Lift Station
230			✓	935 (10,064)	Storage, Classroom & Office
231			✓	357 (3,843)	Office & Warehouse
670			✓	90 (969)	Vacant
605			✓	3,932 (42,324)	Vacant
606			✓	689 (7,416)	Vacant
1158			✓	387 (4,166)	Presidio Dance Theatre
<b>Presidio Parkway – Circle Drive Option<sup>2</sup></b>					
Buildings 106		✓		322 (3,466)	Office
201			✓	1,064 (11,453)	Storage & Office
204			✓	1,128 (12,142)	Office

205			✓	11 (118)	Sewer Lift Station
230			✓	935 (10,064)	Storage, Classroom & Office
231			✓	357 (3,843)	Office & Warehouse
670			✓	90 (969)	Vacant
605			✓	3,932 (42,324)	Vacant
606			✓	689 (7,416)	Vacant
1151			✓	1,190 (12,809)	Recreation
1158			✓	387 (4,166)	Presidio Dance Theatre
<b>Presidio Parkway – Merchant Road Slip Ramp Option<sup>3</sup></b>					
Buildings 1253			✓	130 (1,399)	Residential
1254			✓	269 (2,895)	Residential
1255			✓	265 (2,852)	Residential
1256			✓	141 (1,518)	Residential

Source: Parsons Brinckerhoff, May 2004.

Notes: The temporary removal and return period would last approximately four to five years during construction.

<sup>1</sup> The four Mason Street warehouses could be temporarily removed and returned or permanently removed to accommodate the temporary detour structure.

<sup>2</sup> Does not include the Merchant Road slip ramp option, which would permanently remove Buildings 1253, 1254, 1255, and 1256.

<sup>3</sup> The Merchant Road slip ramp option could be used as an additional design feature with either the Diamond Option or Circle Drive Option. The impacts associated with the Merchant Road slip ramp option would be in addition to the impacts of either the Diamond Option or Circle Drive Option.

#### 4.2.1.1 Temporary Removal and Return of Buildings

Information regarding the organizations that would be affected by the project alternatives was provided by the Trust in May of 2004.

The Replace and Widen Alternative - Detour Option would require the removal of four Mason Street warehouses, Buildings 1182, 1183, 1184 , and 1185 in order to accommodate the temporary detour for the Marina connector ramp. The buildings could either be temporarily or permanently removed. Total building space temporarily removed would be 4,705 square meters (50,644 square feet). Organizations that would be affected by the removal and or return of the Mason Street warehouses during the four to five year construction period include the San Francisco Exploratorium (Building 1182) and the Trust Special Events Department which periodically uses Building 1184. Buildings 1183 and 1185 are owned by the Trust but are currently vacant.

The Presidio Parkway Alternative would not require the temporary removal of any buildings.

#### **4.2.1.2 Permanent Removal of Buildings**

Table 4-3 shows the buildings that would be permanently removed by each build alternative. The Replace and Widen Alternative – No Detour Option would require the permanent removal of Building 1158, which is currently occupied by the Presidio Dance Theatre.

The Replace and Widen Alternative - Detour Option would require the permanent removal of Buildings 605 and 606 (Post Exchange) and Building 610/653 (Commissary) in order to accommodate the project. The permanent removal of Building 610/653 would affect the current tenant, The Sports Basement. Buildings 605 and 606 are currently vacant.

The Presidio Parkway Alternative would require the permanent removal of Buildings 201, 204, 205, 230, 231, 670, 605, 606 and 1158. Buildings 201, 204, 205, 230 and 231 are occupied by the Trust and NPS whom would require relocation to a commensurate property. Buildings 670, 605, 606 are vacant while Building 1158 is occupied by the Presidio Dance Theatre. The Circle Drive Option would require the permanent removal of Building 1151 (the YMCA pool). Both the Diamond and Circle Drive Options under the Presidio Parkway Alternative have a slip ramp option at Merchant Road. The Merchant Road slip ramp option would require the permanent removal of the Armistead Road Buildings 1253, 1254, 1255 and 1256, all of which are residential buildings. The value of these four buildings would be approximately \$2.4 million (2008 dollars) including relocation costs.<sup>16</sup>

#### **4.2.1.3 Temporary Displacement of Tenants Due to Construction**

Building 106 would potentially have to be temporarily displaced for approximately eighteen months during construction for either of the Presidio Parkway Alternative options (not including the Merchant Road slip ramp option) due to its proximity to construction. Building 106 is currently occupied by Arnold Palmer Co. The Trust would be compensated for the lost rent during the period that the tenant would be displaced.

### **4.2.2 Parking**

#### **Temporary Impacts**

Temporary parking impacts were assumed to occur in 2010 to reflect when construction activities would have the greatest effect on the parking supply. Unmet demand reflects parking deficiencies beyond those identified under the No-Build conditions. Under 2010 conditions, the Replace and Widen Alternative – No Detour Option would result in a total unmet demand of 473 spaces in the Gorgas Warehouses, Thornburg, and Palace of Fine Arts areas, and the Replace and Widen Alternative – Detour Option would result in an unmet demand of 156 parking spaces in the Gorgas Warehouses area. The Presidio Parkway Alternative would result in a total unmet demand of 768 spaces in the PX/Commissary, Gorgas Warehouses, Thornburg Road, Rod Road and Palace of Fine Arts areas.

#### **Long-term Impacts**

Under 2030 project conditions, the Replace and Widen Alternative – No Detour Option would result in a total unmet demand of one space in the Mason Street Warehouses area, while the Replace and Widen Alternative – Detour Option would result in unmet demand of 20 spaces in the Thornburg area. The Presidio Parkway Alternative would result in a total unmet demand of 134 spaces in the Thornburg, North Halleck, and Rod Road areas.

Parking impacts are summarized in Table 4-4. In areas where parking impacts have been identified, unmet demand due to each alternative reflects parking deficiencies beyond those identified under the No-Build conditions.

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<sup>16</sup> Data on current rental rates provided by Dick Tilles, The Presidio Trust, July 2004.

**TABLE 4-4  
PARKING IMPACTS**

Area	Surplus/ Deficiency No-Build		Additional Unmet Parking Demand by Alternative					
			Replace and Widen – No Detour Option		Replace and Widen – Detour Option		Presidio Parkway	
	Temp.	Long-term	Temp.	Long-term	Temp.	Long-term	Temp.	Long-term
Mason Street Warehouses	0	2	0	-1	0	0	0	0
PX/Commissary	477	370	0	0	0	0	-142	0
Gorgas Avenue Warehouses	0	0	-142	0	-156	0	-245	0
Thornburg Area	-5	-126	-226	0	0	-20	-120	-115
North Halleck Area	44	59	0	0	0	0	0	-16
Fort Scott – Rod Road	0	0	0	0	0	0	-3	-3
Palace of Fine Arts	0	0	-105	0	0	0	-258	0
<b>Total</b>	<b>516</b>	<b>305</b>	<b>-473</b>	<b>-1</b>	<b>-156</b>	<b>-20</b>	<b>-768</b>	<b>-134</b>

Source: Parsons Brinckerhoff, September 2004.

Note: Negative numbers represent parking deficiencies. Unmet demand due to each alternative reflects parking deficiencies beyond those identified under the No-Build conditions.

Mitigation would be required to replace the parking spaces that would be lost during construction of each build alternative. The availability of replacement parking would depend on the availability of parking during construction. Availability would be based on the type of construction activities taking place, their location and duration. The parking study should be updated periodically to determine the location and extent of available parking lost during construction activities. It is possible that some areas of replacement parking would be needed but their extent and duration would be dependent upon the availability and management of parking elsewhere within the Presidio.

Mitigation would also be required to replace the parking spaces lost under 2030 (permanent) conditions. In 2030, most of the parking that would be lost during construction of the build alternatives would be regained. It is expected that remaining parking deficits would be met through the management of available supply by the Presidio Trust within the study area and in other nearby areas.

**4.2.3 Impacts to Existing Land Use and Federal Lands**

The analysis of potential land use impacts associated with each alternative has been categorized by geographic area. These geographic areas generally correspond to the planning areas defined in the PTMP and include Crissy Field; Letterman; Main Post; Fort Scott; and South Hills. In addition, Area A of the Presidio and surrounding San Francisco neighborhoods are examined.

**4.2.3.1 No-Build Alternative**

**Crissy Field**

Under the No-Build Alternative, no permanent building removal/demolition would be necessary in the Crissy Field area. The Doyle Drive corridor would remain as a transportation corridor through the Presidio in its existing location. No change to the existing or future land uses along the corridor would occur under this alternative. The Crissy Field planning area would continue to function as a primary site for cultural, educational and recreational uses.

**Letterman**

Under the No-Build Alternative, no permanent building removal/demolition would be necessary in the Letterman Complex area. The Doyle Drive corridor would remain as a transportation corridor through the Presidio in its existing location. No change to the existing or future land uses along the corridor would occur

under this alternative. The Letterman planning area would continue to offer a mix of office and residential uses.

#### **Main Post**

Under the No-Build Alternative, no permanent building removal/demolition would be necessary. The Doyle Drive corridor would remain as a transportation corridor through the Presidio in its existing location. No change to the existing or future land uses along the corridor would occur under either of these alternatives. The Main Post planning area would continue to serve as a focal point and visitor/community center for the Presidio.

#### **Fort Scott**

Under the No-Build Alternative, no temporary or permanent building removal/demolition or land use impact would occur to the Fort Scott area.

#### **South Hills**

Under the No-Build Alternative no temporary or permanent building removal/demolition would be necessary. Doyle Drive corridor would remain as a transportation corridor through the Presidio in its existing location. No change to the existing or future land uses along the corridor would occur under this alternative. There would be no impact to the San Francisco National Cemetery under this alternative.

#### **Area A**

Under the No-Build Alternative, no temporary or permanent building removal/demolition or land use impact would occur in Area A of the Presidio.

#### **San Francisco Neighborhoods**

Under the No-Build Alternative, no temporary or permanent building removal/demolition or land use impact would occur to the neighborhoods adjacent the Presidio.

### **4.2.3.2 Replace and Widen Alternative**

#### **Crissy Field**

##### Temporary Impacts

The construction method of the Replace and Widen Alternative - No Detour Option would not require the temporary removal of any buildings.

Under the Replace and Widen Alternative - Detour Option, the four buildings would be temporarily removed: Buildings 1182, 1183, 1184, and 1185 (Mason Street warehouses). The temporary removal of these buildings would last approximately four to five years and upon completion of the project, these buildings would be replaced. The removal of the buildings would not impact the overall land use or development pattern of the Crissy Field planning area but would temporarily reduce the space available for providing uses compatible with the recreational and cultural goals in the area.

##### Long-term Impacts

Construction of the Replace and Widen Alternative - Detour Option would require the permanent removal of four buildings: Buildings 605, 606 (Post Exchange), 610 and 653 (Commissary). The removal of these non-historic buildings would result in an adverse effect on the land use and development of the Crissy Field planning area due to the permanent loss of space available for providing uses compatible with the recreational and cultural goals in the area. This is particularly evident with the removal of Building 610 (Commissary) which is designated in the PTMP for reuse as a museum although other potential sites for museum facilities are identified in the PTMP including the former aircraft hangers along the western portion of Crissy Field.

The Replace and Widen Alternative would not constrain the study area for possible future expansion of Crissy Marsh.

## **Letterman**

### Temporary Impacts

There would be no temporary impacts to the land uses of the Letterman area during construction of either option for the Replace and Widen Alternative. Existing uses would be maintained and planned development would not be hindered.

### Long-term Impacts

Under the Replace and Widen Alternative - No Detour Option, Building 1158 (Mercantile Specialty Store) would be permanently removed. Currently, Building 1158 houses the Presidio Dance Theatre. Removal of this non-historic building would not result in an impact to the overall land use of the Letterman planning area as the area would still function in its role as a compact mixed-use office and residential area. Additionally, PTMP plans call for the potential removal of some non-historic buildings in this planning area.

## **Main Post**

Under the Replace and Widen Alternative, no permanent building removal/demolition would be necessary. The Doyle Drive corridor would remain as a transportation corridor through the Presidio in its existing location. No change to the existing or future land uses along the corridor would occur under this alternative. The Main Post planning area would continue to serve as a focal point and visitor/community center for the Presidio. The Replace and Widen Alternative would accommodate the proposed rehabilitation of Tennessee Hollow.

## **Fort Scott**

Under the Replace and Widen Alternative, no temporary or permanent building removal/demolition or land use impact would occur to the Fort Scott area.

## **South Hills**

Under the Replace and Widen Alternative no temporary or permanent building removal/demolition would be necessary. Doyle Drive corridor would remain as a transportation corridor through the Presidio in its existing location. No change to the existing or future land uses along the corridor would occur under this alternative. There would be no impact to the San Francisco National Cemetery under this alternative.

## **Area A**

Under the Replace and Widen Alternative, no temporary or permanent building removal/demolition or land use impact would occur in Area A of the Presidio.

## **San Francisco Neighborhoods**

Under the Replace and Widen Alternative, no temporary or permanent building removal/demolition or land use impact would occur to the neighborhoods adjacent the Presidio.

### **4.2.3.3 Presidio Parkway Alternative**

#### **Crissy Field**

##### Temporary Impacts

There would be no construction period impacts to the land use of the Crissy Field planning area associated with the Presidio Parkway Alternative.

#### Long-term Impacts

The Presidio Parkway Alternative would require the permanent removal of Buildings 605, 606 (Post Exchange) and 670 (Cable House). Removal of these three non-historic buildings would not adversely affect the overall land use of the Crissy Field planning area. No future use has yet been determined for either building. Proposed development plans identified in the PTMP including re-use of Building 610 (Commissary) as a museum, rehabilitation of Building 650 (Stilwell Hall), implementation of cultural and educational uses at the Cavalry Stables, and expansion of Crissy Marsh would not be affected by the Presidio Parkway Alternative.

The Presidio Parkway Alternative reduces the area into which Crissy Marsh could expand to the east of the Commissary. This area is shown for marsh expansion in the GMPA, the original Crissy Marsh study and it is identified in the current Crissy Marsh Expansion Study as part of the historic marsh footprint and as part of area that is under consideration for future marsh expansion.

#### **Letterman**

##### Temporary Impacts

There would be no temporary impacts to the land uses of the Letterman area during construction of the Presidio Parkway Alternative. Existing uses would be maintained and planned development would not be hindered.

##### Long-term Impacts

Under the Presidio Parkway Alternative, Building 1158 (Mercantile Specialty Store) would be permanently removed. Currently, Building 1158 houses the Presidio Dance Theatre. Removal of this non-historic building would not result in an impact to the overall land use of the Letterman planning area as the area would still function in its role as a compact mixed-use office and residential area. Additionally, PTMP plans call for the potential removal of some non-historic buildings in this planning area.

#### **Main Post**

##### Temporary Impacts

The Presidio Parkway Alternative would require that Building 106 (Band Barracks) be temporarily vacated during the construction period. The temporary closure of this building would not impact the overall land use or development pattern of the Main Post planning area.

##### Long-term Impacts

Under the Presidio Parkway Alternative, five buildings would be permanently removed, Buildings 201 (Exchange Store), 204 (Exchange Store), 205 (Sewage Pump House), 230 (warehouse), and 231 (Exchange Gas Service Station). The removal of Building 201 would adversely affect the streetscape of Halleck Street. Building 205 now operates as a compressed natural gas (CNG) pumping station, and removal of it would impact the Trust's Clean Fuel mandate. Relocation of the CNG pumping station would need to be coordinated with the Trust. The removal of the other three buildings would not adversely impact the overall land use of the Main Post planning area as these buildings are primarily used as storage facilities and not designated for reuse as a key land use (cultural, educational, office, or residential) in the PTMP. The center of the Main Post planning area would remain intact although the loss of Building 201 would affect the character of the Halleck Street corridor. Removal of the five buildings under the Presidio Parkway Alternative would improve access and views to Crissy Field. In addition, the Presidio Parkway Alternative would accommodate the proposed rehabilitation of Tennessee Hollow through the Main Post.

#### **Fort Scott**

##### Temporary Impacts

There would be no temporary impacts to the land uses of the Fort Scott planning area during construction of the Presidio Parkway Alternative. Existing uses would be maintained and planned development would not be hindered.

##### Long-term Impacts

Under the Presidio Parkway Alternative there is the potential for permanent removal of four buildings in the Fort Scott planning area. These buildings would only be removed should the Merchant Road slip-ramp

design option be used. The four non-historic residential buildings (Buildings 1253, 1254, 1255 and 1256) are located along Armistead Road. The removal of these buildings would not adversely affect the overall existing or proposed land use in the Fort Scott planning area. Numerous housing units are available in the immediate surrounding area of this northern part of Fort Scott planning area and additional housing is also available in the southern portion of the planning area along Storey Avenue, Ruckman Road and Hitchcock Street.

### **South Hills**

There would be no temporary or permanent impacts to the land uses of the South Hills planning area associated with the Presidio Parkway Alternative. Existing uses would be maintained and planned development would not be hindered. The National Cemetery would not be affected.

### **Area A**

There would be no temporary or permanent impacts to the land uses of Area A associated with the implementation of the Presidio Parkway Alternative. Existing uses would be maintained and planned development would not be hindered, including the expansion of Crissy Marsh.

### **San Francisco Neighborhoods**

There would be no temporary or permanent impacts to the land uses of the surrounding San Francisco neighborhoods associated with the implementation of the Presidio Parkway Alternative. Existing uses would be maintained and planned development would not be hindered.

## **4.3 PLANS AND POLICIES**

This section describes the existing plans and policies that pertain to the Doyle Drive Project study area and provides an analysis of the consistency of the Doyle Drive Project in relation to those plans and policies.

### **4.3.1 Review of Plans and Policies**

This section provides a review of the Federal, state, and local plans and policies affecting development within the Doyle Drive Project study area that are listed in Section 2.3 - Plans and Policies.

#### **4.3.1.1 Final General Management Plan Amendment and Environmental Impact Statement (1994)**

The NPS developed the GMPA for the GGNRA in the late 1970's to guide overall management of the park in keeping with its legislative purpose and the legal and administrative mandates of the NPS. The Final GMPA was approved in 1994 and provides guidelines for management, use and development of Area A of the Presidio. The GMPA was created through an open public involvement process. The public provided input at visioning and concepts workshops and reviewed the Draft and Final plans. At the time the GMPA amendment was developed, Caltrans was formulating design and engineering alternatives for safety improvements to Doyle Drive, which are discussed in more detail below.

The land use and planning policies relevant to the Doyle Drive Project, as set in the GMPA, are described below.

Minimize Automobile Use - The GMPA outlines a transportation strategy designed to minimize private automobile use and increase the availability of public transit, pedestrian and bicycle travel options. Several recommendations are made to implement this strategy including improved connections between the Presidio and existing city roadway and transit systems, the creation of a transportation hub at the Main Post, and the promotion of alternative fuel shuttle vehicles and water taxis.

Pedestrian and Bicycle Use - Emphasis is placed on promoting safe pedestrian and bicycle routes linking the main activity areas. The GMPA recommends "lowering speed limits on roadways, separating paths and

trails, and reducing confusion, conflicting maneuvers, and congestion on or near busy streets and intersections." (NPS, 1994)

Scenic Vista Enhancement - One objective in the GMPA is to preserve, enhance, and restore scenic vistas. Reopening scenic vistas from Main Post, Cemetery and Cavalry Stables across Crissy Field and the San Francisco Bay would be promoted.

### **GMPA Planning Area Concepts**

The GMPA outlined general concepts for the preservation and development of the Presidio as a whole, as well as for specific planning areas. The specific planning areas include: Crissy Field; Letterman Complex; Main Post; National Cemetery; Cavalry Stables; Fort Scott; Golden Gate/Fort Point Area; and the Coastal Bluffs. With the adoption of the PTMP in August 2002, the GMPA is no longer the relevant planning document for Area B of the Presidio. The GMPA remains the planning guide for the NPS' management of Area A of the Presidio which includes portions of the Crissy Field, Golden Gate/Fort Point, and Coastal Bluffs planning areas. The development plans for each of these three areas are described below. A more detailed description of existing land uses in each area is provided in Section 3.2.1: Inventory of Existing Land Uses.

Crissy Field - The 59-hectare (145-acre) Crissy Field area, which was officially opened on May 1, 2001, has undergone major improvements while retaining recreational opportunities such as jogging, dog walking, and sail boarding. Under the plan a continuous band of public open space from Marina Green through Crissy Field to Fort Point has been created along with a 7.3-hectare (18-acre) tidal marsh with an outlet to the bay to allow water to ebb and flow with the tides. The GMPA includes a plan to expand the Crissy Field marshland, which commenced in 2002 when the Trust, GGNPA and NPS began a collaborative planning effort to study the performance of the marshland and assess what further expansion would be required in order to assure the longevity of Crissy Field as an ecosystem. Prior studies have indicated that a minimum expansion of 5 hectares (12 acres) may be required to sustain the tidal marsh into the future. The historic warehouses along the south side of Mason Street have been preserved. Two known prehistoric sites have been protected and monitored. The NPS will consider an extension of the MUNI waterfront E-line streetcar from Aquatic Park to the Presidio.

Golden Gate/Fort Point - This area, including the Golden Gate Bridge, Fort Point and Coastal Batteries, will remain a major visitor destination. GGBHTD maintenance and administration offices will remain on the west side of the bridge. Some parking and other improvements to the visitor plaza area are planned.

Coastal Bluffs - The batteries along the coastal bluffs will be preserved as historic structures and tourist destinations. The remainder of the land will be preserved as natural areas. Trails will be provided for recreation, and connections to other Presidio trails will be established.

### **4.3.1.2 Presidio Trust Management Plan: Land Use Policies for Area B of the Presidio of San Francisco (2002)**

The Presidio Trust Management Plan: Land Use Policies for Area B of the Presidio of San Francisco (PTMP) succeeds the GMPA as it applies to Area B, the jurisdiction under The Presidio Trust. The PTMP provides an updated policy framework that balances and conforms the concepts and principles of the GMPA with the superseding statutory requirements and mandates of the Presidio Trust Act (16 U.S.C. § 460bb). The PTMP sets forth land use preferences and development guidelines for seven planning districts (as shown in Figure 3-3). For each district, planning guidelines are provided that address the different characteristics of the area, including open spaces, total building space, circulation and access. The guidelines provide parameters and goals to inform future land use and implementation decisions.

The PTMP was adopted by the Trust in August 2002. The goals of the PTMP, in accordance with the "General Objectives" of the GMPA<sup>17</sup>, are:

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<sup>17</sup> As set forth in Presidio Trust Board Resolution 99-11 dated March 4, 1999. See Board resolution on page xi of the PTMP.

- 1) to preserve and (where appropriate) enhance the historical, cultural, natural, recreational, and scenic resources of the Presidio;
- 2) to increase the size and quality of open space by approximately 40 hectares (99 acres) primarily through the demolition of up to 63,174 square meters (680,000 square feet) of non-historic buildings in the southwest part of the park area;
- 3) to reinforce historic patterns of development with a compact, mixed-use community that would reuse and renew buildings and allow for some new construction in already-developed areas (Fort Scott, Crissy Field, Main Post, and Letterman Complex) in the northern part of the park, concentrating population densities around transit stops, with the total amount of built space not to exceed 520,257 square meters (5.6 million square feet);
- 4) to provide a broader range of housing types and a greater number of units by providing approximately 1,650 housing units, representing an increase of approximately 880 units over the GMPA planned number; and
- 5) to make a significant amount of additional building space available for cultural and educational activities, using existing spaces to serve programs such as museums, arts and education, historic and natural resources, and outdoor activity and interpretive sites.

Building on the elements of the GMPA, the PTMP is concerned with improving open space, maintaining compact development patterns and reuse of historic buildings, increasing the diversity of the housing supply, allocating building space for educational and cultural activities, and supporting sustainable transportation and infrastructure systems in Area B of the Presidio. The PTMP divides Area B into seven distinct planning areas including: Crissy Field, Letterman, Main Post, East Housing, South Hills, Public Health Service Hospital, and Fort Scott. For each area, an overall vision or planning concept and set of guidelines to realize that vision or concept have been developed. Four of these areas overlap with the project study area including Letterman, Main Post, Crissy Field, and Fort Scott.

The land use and planning policies relevant to the Doyle Drive Project, as set in the PTMP, are described below.

More Open Space - The PTMP calls for an increase in open space by 40 hectares (99 acres). Approximately 75 percent of the Presidio (Areas A and B) will be open space, providing both valuable natural habitat and recreational opportunities.

Enhanced Scenic Views - The removal of non-historic buildings and select vegetation will increase open space and will provide opportunities for the enhancement of existing views and vistas. In addition, historic visual connections will be restored and vegetation will be used to provide screening for elements that disrupt the historic landscapes.

Balanced Use of Building Space - Buildings contribute to the Presidio's NHLD and their rehabilitation will generate revenues that support the park. The PTMP seeks a balanced use of the buildings within the Presidio. One-third of the building space would be dedicated to residential use, another one-third would be for office use, and the remaining one-third of building space would be for public uses, including cultural and educational use, recreation, small-scale lodging, and visitor amenities.

Sustainable Transportation and Infrastructure Systems - The Trust will adhere to sustainable practices and environmentally sound technologies. The PTMP includes strategies to minimize automobile use, such as more options for public transit and pedestrian and bicycle travel, parking management, and housing in the park for Presidio-based employees.

### **PTMP Planning Area Concepts**

The PTMP outlines an overall vision for seven distinct planning areas and specific guidelines by which to achieve that vision. The specific planning areas included in the Doyle Drive Project include Crissy Field, Letterman Complex, Main Post, and Fort Scott (see Figure 3-3). The land use vision for each of these areas is described below. A more detailed description of existing land uses in each area is provided in Section 3.2.1: Inventory of Existing Land Uses.

Main Post - The Main Post will continue to be a primary orientation point for visitors and a community center where people live, work, and enjoy themselves. The district's historic buildings and landscapes will be preserved, the historic parade ground re-established, and other outdoor spaces rehabilitated. As a central point in the Presidio, the area would be pedestrian friendly with an extensive network of pedestrian and bicycle paths linking to Crissy Field.

Letterman District - The planning concept for the Letterman District combines traditional land uses with new uses in the most urban of the planning districts. The district will continue to offer residential and office uses and will contain the new Letterman Digital Arts Center which is expected to be complete in 2005. As previously described, the Letterman Digital Arts Center will provide an office campus and open space on the 9 hectare (23 acre) site of the former Letterman Hospital. The restoration of Tennessee Hollow to an ecologically vibrant riparian corridor is an important element of the Letterman District planning concept.

Crissy Field - In the Area B portion of Crissy Field (south of Mason Street), the Trust will add site enhancements and historic building rehabilitation to accommodate uses and visitor amenities that complement the spectacular bayfront park of Area A. Potential reuses of buildings include the use of the Commissary building as a museum space, Stilwell Hall as guest lodging, and Cavalry Stables for cultural and educational uses. Open space will be retained and natural resources will be protected including sustaining the long-term health of the Crissy Marsh

Fort Scott - The Trust will maintain the contemplative setting of the Fort Scott area by preserving its historic buildings and landscapes. Preferred uses for the district include education and conference facilities with supporting lodging, housing, and offices.

### **PTMP Specific Recommendations for Doyle Drive**

The PTMP provides a set of objectives that would be used to evaluate potential conflicts with the Doyle Drive design alternatives including:

- minimize short-term and long-term impacts on park resources;
- provide direct access to the Presidio and ensure an appropriate transition between the Doyle Drive roadway west of the Gorgas Avenue warehouses and city streets, using a minimum amount of park land;
- maintain Halleck Street as a pedestrian and bicycle route with limited vehicular use;
- enhance visual and pedestrian connections from the Main Post to Crissy Field; and
- ensure a viable connection for the Tennessee Hollow drainage to Crissy Marsh.

In addition, each of the planning districts outlined in the PTMP include specific guidelines for incorporation with a reconstruction of Doyle Drive.

- The Letterman District guidelines propose that a compatibly designed new entrance from Doyle Drive serves as the main vehicular entry for tenants and visitors to the Letterman complex.
- The guidelines for the Main Post include a call for incorporating an open space connection between the Main Post and Crissy Field as part of the planning for reconstruction of Doyle Drive in addition to improved pedestrian and visual connections between the two areas.

- The guidelines for the Crissy Field district also include creation of safe and inviting open space connections between the Main Post and Crissy Field as part of a Doyle Drive reconstruction. In addition, the guidelines suggest that Doyle Drive should be reconstructed to preserve views to and from the bluffs and Main Post, and maximize views along Halleck Street, Tennessee Hollow, and from the Cavalry Stables.

#### **4.3.1.3 Doyle Drive Task Force Report (1993)**

In 1992, the San Francisco Board of Supervisors created the Doyle Drive Task Force to work with federal, state, and local interests to develop a consensus on the best possible solution for the redesign of the seismically unsafe Doyle Drive. The Report of the Doyle Drive Task Force to the San Francisco Board of Supervisors: A Scenic Parkway for the Park identified a concept for a scenic parkway through the Presidio. The parkway concept envisioned three travel lanes in each direction with an additional eastbound auxiliary lane between the San Francisco exit of Park Presidio Boulevard and a new direct access point to the Presidio. The major elements discussed include, improved views within the Presidio, improved access to the Presidio, and improved safety and amenities. The report presented over 30 recommendations for Doyle Drive including:

- 3.6-meter (12-foot) wide traffic lanes, with 2.4-meter (8-foot) wide shoulders on the right side in each direction;
- provide three continuous lanes in each direction between Highway 1 and the split to Richardson Avenue;
- include a fixed center barrier;
- provide direct access between the Presidio and Doyle Drive;
- encourage the use of tunnels and cut-and-cover to mitigate adverse impacts; and
- design to maximize views for motorists, park users, and from nearby neighborhoods.

#### **4.3.1.4 Letterman Complex Final Environmental Impact Statement (2000)**

The Final Environmental Impact Statement and Planning Guidelines for New Development and Uses on 23 Acres within the Letterman Complex provides analysis of the six proposed alternatives for the development of the Letterman Complex. The proposed project must meet numerous goals including being consistent with the financial self-sufficiently mandate of the Trust. The preferred alternative calls for the creation of an office campus consisting of new buildings comprising approximately 83,613 square meters (900,000 square feet) of space. The newly created Letterman Digital Arts Center would be engaged in research, development and production of digital arts and technologies for use in the entertainment, education, communications, and other industries. Also included on the site would be an underground parking garage for 1,500 vehicles and landscaped open space available for use by park visitors, employees of the center, other Presidio tenants, and area residents.

#### **4.3.1.5 Presidio of San Francisco Vegetation Management Plan and Environmental Assessment (1999)**

The Presidio of San Francisco Vegetation Management Plan and Environmental Assessment (VMP) was prepared in July 1999 to serve as a guide for all the organizations operating within the Presidio and their management of vegetation resources. It is designed to protect and enhance the natural and historical significance of vegetation resources of three broadly defined vegetation categories: native plant communities, historic forest, and landscape vegetation. The VMP includes three Presidio-wide objectives:

- increase open space to enhance park values and improve the Presidio's natural and recreational qualities;

- identify and protect sensitive wildlife species, and restore and maintain their habitats; and
- manage onsite water resources to protect groundwater and surface water resources and natural wetland and riparian values and to efficiently supply water to the Presidio community.

In addition to the Presidio-wide objectives, specific objectives are provided for the management of each of the vegetation categories. Some of these objectives include:

- protect and enhance wildlife habitat by expanding habitat for native plants, increase native species and habitat diversity, avoid invasive plant removal in areas of high wildlife value, and avoid disturbance to wildlife habitat during critical times of the year;
- maintain the forest within the historic forest management zone as a significant historic landscape feature;
- manage the forest to maintain important visual connections; and
- retain existing historic landscapes and historic plants whenever feasible.

#### **4.3.1.6 Presidio Trails and Bikeways Master Plan & Environmental Assessment (2003)**

The Presidio Trails and Bikeways Plan & Environmental Assessment is the guide for directing the establishment of a network of trails and bikeways which would enhance the public's exploration and experience of the Presidio while also protecting its natural and cultural resources. The plan identifies three basic trail classifications, pedestrian trails, multi-use trails and on-street bikeways. The five principal goals of the plan include:

- enhance public use, access and experience;
- support resource preservation;
- contribute to a comprehensive transportation strategy;
- provide for sustainable design and construction; and
- promote ongoing public involvement through volunteer stewardship.

Proposed trail and bikeway connections that may be affected by the Doyle Drive Project include the Presidio Promenade, the Park Boulevard Trail and the Tennessee Hollow Corridor. Within the Presidio Promenade improvements include a consistent sidewalk route and bike lanes, but not a continuous multi-use trail. Near the Cavalry Stables, the bike lanes will separate, using Pattern Road for the westbound bike lane and Lincoln Boulevard for the eastbound bike lane. Subject to further Trust review, Crissy Field Avenue will serve as a two-way multi-use path with no automobile traffic.

The new Park Boulevard multi-use trail would connect Mountain Lake with Presidio and Golden Gate Promenades. The proposed improvements include: improvements to the Mountain Lake trailhead, bike lanes on both sides of Park Boulevard between Washington and Lincoln Boulevards, and bike lanes on both sides of McDowell Avenue.

The new Tennessee Hollow corridor connects recreational areas to the south side of the Presidio through the Tennessee Hollow watershed to the restored Crissy Marsh. The proposed improvements include trailheads at Julius Kahn Playground, Lincoln Boulevard near Funston Avenue, Halleck Street at Mason Street, and Crissy Field Beach; a new trail corridor developed in coordination with Tennessee Hollow restoration plans; a connection to the Golden Gate Bridge Promenade and Crissy Field Beach trailhead via the existing

pedestrian trail; and spur trails with overlooks to view wetland and riparian environments; upgrades to Halleck Street to include bike lanes on both sides of the street, if feasible.

#### **4.3.1.7 Environmental Assessment for Crissy Field Plan (1996)**

The Crissy Field Plan presents two site plan alternatives, including the Proposed Action and Dune Alternative, and a No-Build Alternative for the development of an approximately 100-acre portion of Crissy Field from the south side of Mason Street to the Bay. The Crissy Field Plan states that the development of Crissy Field is to be consistent with the planning area concept and actions of the Crissy Field area as described in the GMPA. Site development for Crissy Field includes the overall goal of “enhancing the setting for recreation and visitor enjoyment while rehabilitating and preserving important historic resources and natural values”. Several objectives are identified including:

- Enhance the setting and opportunities for visitors and recreational and educational uses;
- Enhance and expand existing natural resource values and capitalize on opportunities to restore dunes and a remnant of historical tidal marsh;
- Preserve and enhance cultural resources;
- Improve transportation and circulation; and
- Develop a sustainable design.

Improvements of the Proposed Action to the 40.5-hectare (100-acre) site include:

- Golden Gate Promenade Improvements
- Mason Street redesign
- Coastal dune restoration
- East Beach and entry improvements
- Airfield restoration
- West bluff improvements
- Rubble removal and beach reconfiguration
- Retention and removal of existing vegetation
- Development of a waterbird protection area
- Construction of a 8.1-hectare (20-acre) tidal marsh

#### **4.3.1.8 San Francisco Bay Plan (2003)**

The BCDC is a state agency with the authority to issue or deny permit applications for placing fill, extracting materials, or changing the use of any land, water, or structure within the San Francisco Bay. The San Francisco Bay Plan, adopted in 1968 by BCDC and last amended in 2003, includes the policies to guide future uses of the Bay and shoreline and includes a set of maps which show where the policies should apply to the present Bay and shoreline. The Bay Plan maps also identify priority shoreline use areas around San Francisco Bay. The Bay Plan includes two objectives: protect the Bay as a great natural resource for the

benefit of present and future generations, and to develop the Bay and its shoreline to their highest potential with a minimum of Bay filling.

The Bay Plan includes numerous policies related to transportation, specifically water transport and additional bridges across the bay, existing and new shoreline parks, and public access to the Bay in addition to numerous other categories. Transportation policies encourage alternatives that do not require bridges across the bay or fill in the bay. Public access policies state that access to and along the waterfront should be provided by walkways, trails, or other appropriate means, and connect to the nearest public thoroughfare where convenient parking or public transportation may be available. Additionally, policies state that roads near the edge of the water should be designed as scenic parkways for slow-moving, principally recreational traffic. Specific policies for areas along the Bay are outlined in the Bay Plan maps.

Bay Policy 5c highlights the policies for Bayfront military installations designated as waterfront parks which includes the Presidio. The policy states that these installations should be developed and managed for recreation uses to the maximum practicable extent consistent with the Bay Plan Map Policies and with all of the following:

- 1) Physical and visual access corridors between inland public areas, vista points and the shoreline should be created, preserved or enhanced. Corridors for Bay-related wildlife should also be created, preserved and enhanced where needed and feasible.
- 2) Historic structures and districts listed on the National Register of Historic Places or California Registered Historic Landmarks should be preserved consistent with applicable state and Federal Historic Preservation law and should be used consistent with the Bay Plan recreation policies. Public access to the exterior of these structures should be provided. Public access to the interiors of these structures should be provided where appropriate.
- 3) To assist in generating the revenue needed to preserve historic structures and develop and maintain park improvements and to achieve other important public objectives, uses other than water-oriented recreation, commercial recreation and public assembly facilities may be authorized on former military installations designated on the Bay Plan maps for waterfront park uses only at locations identified in the Bay Plan map policies. Even at these designated locations, these other uses should be allowed only if they would: (1) not diminish recreation opportunities or the park-like character of the site; (2) preserve historic buildings where present for compatible new uses; and (3) not significantly, adversely affect the site's fish, other aquatic life and wildlife and their habitats.

The Presidio is designated a waterfront park, beach priority use area in the San Francisco Bay Plan Map 4, Central Bay North. Included with Plan Map 4 are two policies specifically directed at the Presidio: Policy 27 states that the area of the Presidio within the jurisdiction of the NPS should be developed and managed for open space and water-oriented recreation. The policy also states Crissy Field marsh should be protected in addition to evaluating the possible need for expansion and improvement to the marsh while preserving cultural resources and recreation use. Policy 28 states that development within the Presidio Area B should be consistent with the recreation policy 5-c as called for in the Trust's management plan. The policy specifically states that "alterations to Doyle Drive should preserve recreation opportunities within the waterfront park priority use area and preserve existing natural and cultural values or their restoration potential" (BCDC, 2003). In the plan map notes, it is suggested that a scenic transit system could be a major waterfront attraction, and "could eventually operate the entire distance from the Golden Gate Bridge (or even Ocean Beach) to the Ferry Building (or south to China Basin)" (BCDC, 2003).

#### **4.3.1.9 San Francisco General Plan (1996)**

The San Francisco General Plan establishes general land use goals and objectives for development in the City, but excludes the Presidio, and prescribes policies as steps for achieving the objectives. Although the Presidio is under exclusive Federal jurisdiction and not under jurisdiction of the City, the NPS and Trust seek to minimize possible conflicts between Federal activities and City policies, and consult with the City to

achieve consistency wherever possible. While lacking jurisdiction, the City Planning Commission may review proposals and advise the Presidio on matters of mutual interest. Several policies of the General Plan could have a bearing on the Doyle Drive Project, including:

- commuter traffic should not impede MUNI transit services or overburden streets or neighborhood parking;
- landmarks and historic buildings should be preserved; and
- parks and open space and their access to sunlight and vistas should be protected from development.

The General Plan is divided into several elements, which discuss specific topics and areas of concern. The Environmental Protection Element, the Transportation Element, the Recreation and Open Space Element, and the Urban Design Element contain policies that have relevance to the Doyle Drive Project.

Environmental Protection Element - The environmental protection element focuses on policies to conserve, protect and improve the natural resources of San Francisco. Policy 8.2 states that the City should protect the habitats of known plant and animal species that require a relatively natural environment and that the Presidio should be urged to protect animal and plant habitats within its boundaries

Other policies encourage the development and use of urban mass transportation systems to reduce the environmental impacts associated with automobile use, including retaining and expanding the electric trolley network. Policies to reduce transportation noise are also recommended and measures to slow down traffic or divert to through streets are encouraged to reduce noise in sensitive areas and residential streets.

Transportation Element - The Transportation Element is composed of several sections which deal with components of the local and regional transportation system. Policies encourage pedestrian and bicycle traffic, including maintaining and constructing sidewalks on streets with pedestrian traffic. It encourages the development of a recreational trail system that links city parks and open space, including the Marina Green, Crissy Field, Fort Point, and the rest of the Presidio. Marina Boulevard is identified as a component in the Bicycle Route Network that links the Marina Green to Crissy Field, Fort Point, and other areas within the Presidio. Policy 8.1 is directed to ensure that the Coast Trail, Bay Trail and Ridge Trail remain uninterrupted and unobstructed where they pass through San Francisco, including the Presidio

The Transportation Element also gives priority to public transit and other alternatives to the private automobile, as a means of meeting San Francisco's transportation needs, particularly those of commuters. For the conversion and re-use of inactive military bases, San Francisco has a policy to provide for a balanced, multi-modal transportation system (Policy 2.6). Additional policies are aimed at not increasing the vehicular capacity of approaches to the Golden Gate Bridge, and instead, concentrating efforts on accommodating future travel demand through transit (Policy 3.1).

The Transportation Element also addresses transportation facilities around residential neighborhoods and parks. Wherever feasible, automobile and commercial traffic should be diverted from residential neighborhoods onto major and secondary arterials to non-residential streets wherever possible. High speed through traffic should be discouraged on local streets in residential areas through traffic "calming" measures that are designed not to disrupt transit service or bicycle movement. Through traffic should also be routed away from San Francisco's shoreline recreation areas, such as Crissy Field and the Marina Green. The impacts of automobile traffic should be reduced in and around parks and along shoreline recreation areas. The Transportation Element includes a policy which suggests the design and location of facilities should be done to preserve the historic city fabric and the natural landscape, and to protect views (Policy 2.3).

The only specific guideline in the General Plan for Doyle Drive is, "This road should be improved for greater safety and minimal conflict with the recreational and scenic values of the Presidio; design capacity should be no greater than three lanes in each direction." Each of the proposed build alternatives would be consistent with this guideline and provide three through lanes in each direction. An auxiliary lane in the southbound

direction between the Park Presidio interchange and the connection to Marina Boulevard would accommodate merging, diverging and weaving maneuvers for improved traffic safety.

Recreation and Open Space Element - The Recreation and Open Space Element outlines San Francisco's policies to preserve existing open space. It recommends gradually eliminating non-recreational uses in parks and playgrounds and reducing automobile traffic in and around public open space. A policy to create a trail around the perimeter of the City which links open space along the shoreline and provides for maximum waterfront access is consistent with the Transportation Element's policies. It also specifically addresses preserving the open space and natural character of the Presidio (Policy 2.5).

Urban Design Element – The Urban Design element is concerned with the physical environment and the order of the city. It is concerned with development, preservation and the relationship between people and their environment. Policy 2.4 is designed to preserve notable landmarks and areas of historic, architectural or aesthetic value, and to promote the preservation of other buildings and features that provide continuity with past development.

#### **4.3.1.10 San Francisco Local Approvals**

Because the Presidio is on Federal land, it is under exclusive Federal jurisdiction and therefore it is not directly subject to state and local land use plans, policies or regulations. However, because the Doyle Drive Project area extends into the Marina, Lombard Street corridor, and Cow Hollow neighborhoods in San Francisco, the project would require local approvals affecting land use outside Federal property. In addition, the Trust advises the City of planning, construction and land use proposals in the Presidio that may have an impact upon the City through the NEPA environmental review process.

Some of the local approvals which would be required by the Doyle Drive Project include encroachment permits, and authorization for any sidewalk or roadway changes within City jurisdiction. If construction work is contemplated on the portion of the study area outside of Federal property, consistency with Article 20 of the Public Works code would be required since there is the potential for hazardous materials being transported through/on San Francisco streets. In addition, construction may be subjected to the San Francisco noise ordinance.

The Palace of Fine Arts, located on the edge of the Presidio and within the Doyle Drive study area is a designated City Landmark (Number 88) subject to the requirements of Article 10 of the San Francisco Planning Code. A finding of General Plan Conformity for the Doyle Drive Project by the San Francisco Planning Department and Planning Commission is also required.

#### **4.3.1.11 Future Restored Tennessee Hollow Study Corridor**

The NPS and the Trust plan to restore the Tennessee Hollow creek system and its associated riparian corridor to its natural state, as discussed in the GMPA and the PTMP. The Trust is preparing the Tennessee Hollow Watershed Project Environmental Assessment. The project features a range of alternatives, each with an emphasis on restoring the Tennessee Hollow creek system. In 2004 the Trust and NPS completed the Crissy Marsh Expansion Study, which examined the health and function of the marsh. The Trust and NPS will evaluate a full range of alternatives for the long-term health and viability of the marsh, including the area of Tennessee Hollow within the Doyle Drive corridor. Proposed vegetation within the Doyle Drive corridor would include brackish marsh species, such as willows, sedges, rushes and other flowering herbaceous wetland species. An evaluation of shade impacts associated with each alternative can be found in Appendix B.

#### **4.3.2 Consistency with Plans and Policies**

This section describes the analysis of consistency of the proposed project alternatives with plans and policies that govern the study area. Each alternative was evaluated as to its consistency with existing plans and policies. For a detailed description of plans and policies refer to Section 4.3.1.

#### 4.3.2.1 No-Build and Replace and Widen Alternatives

##### 2002 Presidio Trust Management Plan

The PTMP identifies planning concepts and guidelines for distinct planning areas within the Presidio. The No-Build and the Replace and Widen Alternative would be inconsistent with many of the PTMP guidelines. For example:

- By maintaining Doyle Drive entirely above grade, opportunities to increase open space and enhance scenic views and vistas would be substantially reduced.
- The No-Build and Replace and Widen Alternatives would not provide opportunities for the implementation of strategies intended to minimize automobile use, including improved public transit connections and circulation or allow for the implementation of environmentally sound technologies. Under these alternatives, vehicles would continue to access the Presidio through one of the seven gates or Merchant Road since the Richardson Avenue slip ramp would be removed.
- Although maintaining Doyle Drive above grade would not improve open space connections between Crissy Field (Area B) and other parts of the park (i.e., Main Post Letterman Complex, and Fort Scott), the alternatives would maintain the existing access.
- Although the Replace and Widen Alternative - No Detour Option would not require removal of the Commissary (Buildings 605 and 606), the Replace and Widen Alternative – Detour Option would require the removal of the Commissary to accommodate the temporary detour structure. This would conflict with the PTMP desire to use the Commissary as a museum.

The No-Build and Replace and Widen alternatives would be consistent with other PTMP policies. Neither alternative would interfere with the overall planning objective of each planning district nor would they interfere with the housing objectives of the plan. Each alternative would accommodate a restoration of Tennessee Hollow.

##### 1994 General Management Plan Amendment Environmental Impact Statement

The GMPA outlines concepts for preservation and development for specific planning areas within Area A of the Presidio. The No-Build and the Replace and Widen Alternatives would be inconsistent with several GMPA goals and policies. The alternatives would not: redesign Doyle Drive as a parkway, minimize the effects of noise and other pollutants on the park, nor improve the Presidio entrance and circulation features of Doyle Drive.

##### Doyle Drive Task Force Report

The No-Build Alternative would be inconsistent with the report recommendations since there would be no improvements or changes to the existing Doyle Drive.

Although the Replace and Widen Alternative would be consistent with some engineering recommendations in the Doyle Drive Task Force Report such as three continuous six 3.6-meter (12-foot) lanes in each direction, it would be inconsistent with the overall design recommendations for a parkway, including:

- This alternative would not use tunnels and cut-and-cover to mitigate adverse impacts.
- It would not maximize views for park users or from nearby neighborhoods.
- This alternative would not minimize the height of the Doyle Drive vertical structures.
- It would not provide an interchange so that Doyle Drive traffic can enter the Presidio directly, instead of traveling through surrounding neighborhoods.

### **Letterman Complex EIS**

The No-Build Alternative would be consistent with the Letterman Complex EIS, particularly the preferred alternative (Digital Arts Center), which is currently under construction.

The Replace and Widen Alternative, No Detour and Detour options, would remove the Richardson Avenue slip ramp that is currently under construction as a proposed mitigation measure for the Letterman Digital Arts Center (to provide direct access and egress to the Letterman complex via Richardson Avenue). Removal of the access ramp would make the Replace and Widen Alternative inconsistent with the Letterman Complex EIS.

### **Presidio of San Francisco Vegetation Management Plan and Environmental Assessment**

The No-Build Alternative would be inconsistent with the following two objectives in the VMP:

- The Alternative would not increase open space to enhance park values and improve the Presidio's natural and recreational qualities.
- The Alternative would not create opportunities for restoration of wildlife habitats.

The No-Build Alternative would be consistent with other aspects of the VMP; however, since it would not disturb water resources, wildlife habitats, forests in the historic forest management zone, and existing historic landscapes and plants.

The Replace and Widen Alternative would be inconsistent with several key objectives in the VMP:

- The Alternative would not increase open space to enhance park values and improve the Presidio's natural and recreational qualities.
- The Alternative would not restore and maintain wildlife habitats.
- The Alternative would not maintain the forest within the historic forest management zone as a significant historic landscape feature. Approximately 2.8 hectares (7 acres) of tree cover would be removed under this alternative, primarily near the Park Presidio interchange.

While the Replace and Widen Alternative would not serve many of the objectives in the VMP, the Alternative would be consistent with the need to protect water resources.

### **Presidio Trails and Bikeways Master Plan & Environmental Assessment**

The No-Build Alternative is consistent with the overall goals of the Presidio Trails and Bikeways Master Plan. The alternative would not have an effect any existing or proposed trails and bikeways in the Presidio and would accommodate the goals and objectives of the plan.

The Replace and Widen Alternative is also consistent Presidio Trails and Bikeways Master Plan. This alternative would also accommodate the goals and objectives of the plan by allowing implementation of any alternative. The Replace and Widen Alternative would maintain access by allowing pedestrians and bicyclists to cross over or under the Doyle Drive facility at numerous locations (DKS Associates, 2004). The completed Replace and Widen Alternative would accommodate those trail corridors (Tennessee Hollow Trail, Park Boulevard Trail, and Presidio Promenade Trail) which cross under the Doyle Drive structure. During the construction period, there would likely be some temporary closure or detour of existing trails in the vicinity of Doyle Drive. As sections of Doyle Drive are under construction, those trails that cross under the structure in that area would need to be detoured or closed from use in order to accommodate construction activities and for the safety of trail users.

### **Crissy Field Plan**

The No-Build and Replace and Widen Alternatives would be consistent with the Crissy Field Plan and would not impact the implementation of any elements of the Proposed Action since any work associated with the alternatives would occur outside the boundaries of the Crissy Field Plan study area.

### **San Francisco General Plan**

The No-Build and Replace and Widen Alternatives would be inconsistent with the Environmental Protection Element and Recreation and Open Space Element. While both alternatives would not substantially change existing conditions within the Presidio, they are inconsistent with General Plan policies because these alternatives do not implement changes that would promote the preservation of additional open space or the natural character of the Presidio, eliminate non-recreational uses or improve existing conditions for development of mass transit, slow traffic or reduce transportation noise.

The No-Build Alternative would also be inconsistent with the Transportation Element because it does not meet the General Plan design guideline for Doyle Drive which calls for the road to be improved for greater safety..

While the Replace and Widen Alternative would improve the safety of Doyle Drive, it would be partially inconsistent with the Transportation Element because it does not minimize conflicts with the scenic values of the Presidio.

### **San Francisco Bay Plan**

The No-Build and Replace and Widen Alternatives would not affect the shoreline or undeveloped areas of the Presidio nor would they discourage use of the shoreline recreation areas. According to the Bay Plan, these areas are to be retained for park uses and, therefore, these alternatives would not be in conflict with this policy. Although neither alternative would improve access to the Presidio or improve open space connections between the north and south sides of Doyle Drive, both alternatives would maintain the existing access to the shoreline from within the Presidio. Both alternatives would also accommodate an expansion of Crissy Marsh as called for in Bay Plan Map 4 Policy 27.

### **San Francisco Local Approvals**

Neither alternative would require construction in lands needing additional approval from the City and County of San Francisco.

### **Future Restored Tennessee Hollow Study**

The No-Build Alternative would not increase the existing percentage of shade found under the viaduct structure but would still have an adverse effect on restoration that attempts to restore shade-intolerant plants. The existing viaduct would potentially comprise an impediment to wildlife using the restored Tennessee Hollow/Crissy Marsh expansion area for movement to and from the existing Crissy Marsh. The Replace and Widen Alternative would place wider structures in the Tennessee Hollow area. The increased width of the structures would cast approximately 22 percent and 18 percent (for the No-Detour and Detour options, respectively) more full shade on a future Tennessee Hollow than the No-Build Alternative. This increase in shade would have an adverse effect on restoration that attempts to restore shade-intolerant plants. The new viaducts would potentially comprise an impediment to wildlife using the restored Tennessee Hollow/Crissy Marsh expansion area for movement to and from the existing Crissy Marsh.

However, assuming the corridor under the viaduct is designed with natural features such as logs and rocks, it is concluded that neither the No-Build or Replace and Widen Alternatives would not constrain the use of Tennessee Hollow area as a wildlife corridor for terrestrial wildlife, although some birds would be unlikely to pass through.<sup>18</sup>

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<sup>18</sup> The build alternatives would, however, be inconsistent with the management designation for Tennessee Hollow under the Presidio Trust Management Plan (Presidio Trust, 2002).

#### 4.3.2.2 Presidio Parkway Alternative

##### 2002 Presidio Trust Management Plan

The Presidio Parkway Alternative would support the following PTMP land use and planning policies:

- More Open Space – The Presidio Parkway Alternative would be consistent with this policy since the Presidio Parkway Alternative would allow more open space in areas where Doyle Drive would be reconstructed from above grade to below grade. Under the Presidio Parkway Alternative, two portions of Doyle Drive would be in tunnel: 1) Shallow cut-and-cover tunnels would extend 240 meters (787 feet) past east of the San Francisco National Cemetery to east of Battery Blaney, and 2) Cut-and cover tunnels up to 310 meters long (984 feet) would extend from Building 106 (Band Barracks) to east of Halleck Street.
- Enhanced Scenic Views – By placing portions of Doyle Drive in underground tunnels, the Presidio Parkway Alternative would provide enhanced scenic views in the study area.
- The new intersection at Girard Road would provide access to the Presidio at the east of Doyle Drive and the proposed Merchant Road slip ramp option would provide direct access to the Golden Gate Visitors' Center and alleviate the congested weaving section where northbound Park Presidio Boulevard merges into Doyle Drive.

The Presidio Parkway Alternative would be inconsistent with the following PTMP land use and planning policy:

- Balanced Use of Building Space – The Presidio Parkway Alternative would not be consistent with this policy since it would require the permanent removal of Buildings 605 and 606 in the Post Exchange/Commissary area, Building 1158 in the Gorgas Warehouses area, Buildings 201, 204, 205, 230 and 231 in the Main Post – North Halleck area, and Building 670 in the Cavalry Stables area. If the Circle Option is implemented, Building 1151 in the Gorgas Warehouses area would also be permanently removed. The Merchant Road slip ramp option would require the removal of four residential buildings (Buildings 1253 – 1256) along Armistead Road.
- Sustainable Transportation and Infrastructure Systems – Although the Presidio Parkway Alternative would improve access to the Presidio and maintain pedestrian and bicycle corridors, it would not include strategies to minimize automobile use or implement sustainable practices and environmentally sound technologies.
- Parkway Alternative would not be consistent with the PTMP objective to preserve and enhance the historical resources of the Presidio. The Presidio Parkway Alternative would require the removal of the following historic buildings: Buildings 670, 201, 204 and 230. In addition, Building 1151 would be removed under the Circle Drive Option.

##### 1994 Presidio General Management Plan Amendment

The Presidio Parkway would be consistent with the land use and planning policies set forth in the GMPA and the GMPA Planning Area Concepts for Area A. It would redesign Doyle Drive as a parkway rather than freeway, improve connections between the Presidio and existing city roadway and transit systems, provide standard ramp geometry at the exit ramp from eastbound Doyle Drive to Park Presidio Boulevard, and enhance scenic vistas by placing sections of Doyle Drive in underground tunnels.

##### Doyle Drive Task Force Report

The Presidio Parkway Alternative would be consistent with the report recommendations since it would improve the existing Doyle Drive with many features included in the proposed parkway concept: three lanes in each direction with an eastbound auxiliary lane between the Park Presidio interchange and the new Presidio access at Girard Road, use of cut-and-cover tunnels, improved views within the Presidio (although

views for motorists would be diminished with a lower structure and portions in tunnels), improved access to the Presidio, and improved safety and amenities.

### **Letterman Complex EIS**

The Presidio Parkway Alternative would be consistent with the Letterman Complex EIS, particularly the preferred alternative (Digital Arts Center), which is currently under construction.

### **Presidio of San Francisco Vegetation Management Plan and Environmental Assessment**

The Presidio Parkway Alternative would be inconsistent with objectives in the VMP related to maintaining the forest within the historic management zone and retaining existing historic landscapes and plants, since it would require removal of approximately 5.4 hectares (13.3 acres) of tree cover, primarily near the Park Presidio interchange. The Presidio Parkway Alternative would also be inconsistent with the VMP because of potential disturbance to groundwater at the Battery tunnels.

In general, however, the Presidio Parkway Alternative would be consistent with many of the objectives in the VMP:

- The Alternative would increase open space to enhance park values and improve the Presidio's natural and recreational qualities, since portions of Doyle Drive will be in underground tunnels.
- The Alternative would support protection of sensitive wildlife species, and restore and maintain their habitats by providing more open space and connectivity between both sides of the Doyle Drive roadway.

### **Presidio Trails and Bikeways Master Plan & Environmental Assessment**

The Presidio Parkway Alternative is consistent with the Presidio Trails and Bikeways Master Plan by improving public access to the Presidio, improving traffic safety for motorists, bicyclists and pedestrians, and supporting resource preservation by providing additional open space and enhanced scenic views. The Presidio Parkway Alternative would accommodate the goals and objectives of the plan. The Presidio Parkway Alternative would not impact permanently affect those trail corridors located in the vicinity of Doyle Drive including the Tennessee Hollow Trail, Park Boulevard Trail, or Presidio Promenade Trail. There would be improved views along portions of the Tennessee Hollow and Presidio Parkway Trails as sections of Doyle Drive would be placed in tunnels.

The Presidio Parkway Alternative would maintain access by allowing pedestrians and bicyclists to cross over or under the Doyle Drive facility at numerous locations. It would also include new pedestrian crossings on Girard Road between the Palace of Fine Arts and Girard Road, as well as a crossing at the Richardson Avenue/Gorgas Avenue intersection (DKS Associates, 2004).

During the construction period, there would likely be some temporary closure or detour of existing trails in the vicinity of Doyle Drive. As sections of Doyle Drive are under construction, those trails that cross under the structure in that area would need to be detoured or closed from use in order to accommodate construction activities and for the safety of trail users.

### **Crissy Field Plan**

The Presidio Parkway Alternative would be consistent with the Crissy Field Plan and would not impact the implementation of any elements of the Proposed Action since any work associated with the Presidio Parkway Alternative would occur outside the boundaries of the Crissy Field Plan study area.

### **San Francisco General Plan**

The Presidio Parkway Alternative would not be consistent with the San Francisco General Plan's policy to preserve landmarks and historic buildings. The Presidio Parkway Alternative would require the removal of the following historic buildings: Buildings 670, 201, 204 and 230. In addition, Building 1151 would be removed under the Circle Drive Option.

The Presidio Parkway Alternative would be consistent with other land use policies and objectives established in the San Francisco General Plan and its various elements.

The Presidio Parkway Alternative would be consistent with the design guidelines presented in the Transportation Element. The alternative would improve safety of the roadway and also improve the scenic values of the Presidio by placing portions of the roadway in tunnels and lowering the height of the low-viaduct structure.

### **San Francisco Bay Plan**

The Presidio Parkway Alternative would not affect the shoreline or undeveloped areas of the Presidio. According to the Bay Plan, these areas are to be retained for park uses and therefore, this alternative would not be in conflict with this policy. The alternative would also accommodate an expansion of Crissy Marsh as called for in Bay Plan Map 4 Policy 27. The Presidio Parkway Alternative would improve access to the Presidio and indirectly improve access to those recreational opportunities available along the Bay. Additionally, placement of a segment of roadway would provide improved access between the Main Post and waterfront areas of the Presidio.

### **San Francisco Local Approvals**

The Presidio Parkway Alternative would require construction in lands needing additional approval from the City and County of San Francisco Department of Public Works.

### **Future Restored Tennessee Hollow Study**

The Presidio Parkway Alternative would increase the width of roadway structures in the Tennessee Hollow area although at a lower height. The reduced height of the structures would result in approximately 5 percent less full shade on a future Tennessee Hollow than the No-Build Alternative. Due to the low average Height:Width ratio of the Presidio Parkway Alternative, it is believed that no vegetation would establish under the causeway. The new viaducts would potentially comprise an impediment to wildlife using the restored Tennessee Hollow/Crissy Marsh area for movement to and from the existing Crissy Marsh. However, assuming that the corridor under the viaducts is designed with natural features such as logs and rocks, it is concluded that the Presidio Parkway Alternative would not constrain the use of the Tennessee Hollow area as a wildlife corridor for terrestrial wildlife, although some birds would be unlikely to pass through

## **4.4 CEQA SIGNIFICANCE**

### **4.4.1 Significance Criteria**

This section has been prepared in accordance with the California Environmental Quality Act of 1970 (CEQA), as amended (Public Resources Code, Section 21000, et. seq.), and the California Environmental Quality Act Guidelines (California Administrative Code Section 15000, et. seq.). The CEQA Guidelines section 15382 defines “significant effect on the environment” as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project.

Appendix G to the CEQA Guidelines describes impacts that the California Resources Agency has determined are normally considered significant. These guidelines require that physical changes in the environment be evaluated based on factual evidence, reasonable assumptions supported by facts, and expert opinion based on facts. According to Caltrans Environmental Handbook Volume 4 – Community Impact Assessment (June 1997), the following list of impacts are considered socioeconomic in nature and relevant to community impact assessments. The effects were considered significant when these impacts would result in the following conditions:

- Would the project physically divide an established community?

- Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
- Would the project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?
- Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?
- Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
- Would the project result in inadequate emergency access?
- Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

#### **4.4.2 Significance Findings**

Based on the impact analysis, implementation of either the Replace and Widen Alternative or the Presidio Parkway Alternative would not result in significant impacts to the community or land uses of the project area.

##### **Would the project physically divide an established community?**

None of the project alternatives would physically divide an established community since the alternatives would replace an existing roadway in generally the same location.

##### **Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

None of the project alternatives would induce population growth in an area. The project would replace an existing roadway with a safer structure and provide access to areas identified in current development plans. The alternatives do not provide additional capacity.

##### **Would the project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?**

Yes, the project would result in a substantial increase in traffic in some locations under some alternatives as compared to the No-Build Alternative.

Traffic volumes on the segment of northbound Richardson Avenue between Marina Boulevard access ramps and Lyon Street would remain about the same with the Replace and Widen Alternative as the No-Build Alternative. Traffic would increase by 21 and 17 percent, respectively, for the Presidio Parkway Alternative – Diamond Option and the Presidio Parkway Alternative – Circle Drive Option. This impact would primarily affect operations on Richardson Avenue.

Intersection delays resulting from conditions under the Replace and Widen Alternative would adversely affect operations along Marina Boulevard during the morning and evening weekday commute periods in both the northbound and southbound directions. In addition, the Lyon Street/Lombard Gate would be adversely affected under this alternative under weekend conditions (LOS D to E). However, these changes would result in little overall effect to traffic operations throughout the Marina neighborhood. Overall, the Presidio

Parkway Alternative would benefit intersections that would be congested under 2030 No-Build Alternative conditions.

Under the Presidio Parkway Alternative, congestion would increase at the Richardson Avenue/Francisco Street intersection resulting from the proposed Richardson/Gorgas/Lyon intersection planned for Presidio access. This impact is not expected to result in adverse impacts to neighborhood traffic operations.

**Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

None of the project alternatives would require the displacement of substantial numbers of people. The Presidio Parkway Alternative would potentially remove four residential buildings with the Merchant Road slip ramp option. The four non-historic residential buildings are located along Armistead Road, and include Building 1253 (one 2-bed unit), Building 1254 (two 2-bed units), Building 1255 (two 2-bed units), and Building 1256 (one 2-bed unit). Numerous housing units are available in the immediate surrounding area of this northern part of Fort Scott planning area and additional housing is also available in the southern portion of the planning area along Storey Avenue, Ruckman Road and Hitchcock Street. Any displaced resident should be able to find alternate housing within the Presidio, as there is currently a five percent vacancy rate and more units are becoming available as building rehabilitation continues.

**Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

There is no farmland in the project area.

**Would the project result in inadequate emergency access?**

All project build alternatives would maintain the existing emergency access to the Presidio and surrounding areas that would be similar to existing conditions (No-Build Alternative). Although emergency access routes would be maintained during construction of either build alternative, it is expected that emergency vehicle response times would be delayed, although not significantly, from existing conditions.

**Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?**

Both the No-Build Alternative and the Replace and Widen Alternative would conflict with various elements of the PTMP, GMPA, Doyle Drive Task Force Report, Letterman Complex EIS, Presidio Vegetation Management Plan, and San Francisco General Plan. The Presidio Parkway Alternative would conflict with some elements of the PTMP, San Francisco General Plan and Presidio Vegetation Management Plan. None of the inconsistencies or conflicts would be considered a significant impact. Please see Section 4.3.2 for a discussion of the consistency of each alternative with the various plans and policies analyzed.

## SECTION 5: CUMULATIVE IMPACTS

Both NEPA and CEQA require a project to analyze cumulative impacts in addition to direct and indirect impacts. Section 1508.7 of the Council on Environmental Quality (CEQ) Regulations defines a cumulative impact as “the impact on the environment which results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”

According to CEQA Guidelines Section 15355 cumulative impacts refers to “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.”

In order to analyze a proposed project’s contribution to cumulative impacts, CEQA requires that the lead agency identify reasonably foreseeable projects in the vicinity of the proposed project, summarize their effects, identify the contribution of the proposed project to cumulative impacts in the project region, and recommend feasible options for mitigating or avoiding the project’s contribution to any significant cumulative effects (CEQA Guidelines Section 15130 [b][3]).

The cumulative impacts analysis considers the impacts to the community generated by the Doyle Drive Project in combination with other projects in the area including Marin County, the City of San Francisco, and the Presidio. For this Community Impact Assessment the following list of projects was compiled using existing environmental documents such as the MTC’s 2001 Regional Transportation Plan for the San Francisco Bay Area, (Adopted December 2001/Amended November 2002). In order to capture potential indirect cumulative effects the list of projects also includes highway improvements, transit projects, and current and future development plans for projects within the study area and within the same areas of potential effect evaluated as part of the No-Build, Replace and Widen, and Presidio Parkway Alternatives. Other projects to be considered include:

- Letterman Digital Arts Center – currently under construction
- Richardson Avenue slip ramp – currently under construction
- Presidio Transit Center – construction beginning Fall 2004
- Presidio Water Recycling Project – planning document prepared March 2002; construction scheduled to begin shortly
- Crissy Marsh Expansion – preliminary planning
- Tennessee Hollow Restoration – preliminary planning
- Building rehabilitation in the Presidio – on-going
- Rehabilitation of the Palace of Fine Arts – on-going
- San Francisco – Oakland Bay Bridge: Seismic Retrofit of the West Span and West Approach – on-going
- San Francisco – Oakland Bay Bridge: East Span Seismic Safety Project – currently under construction
- Golden Gate Bridge Seismic Retrofit – on-going
- Golden Gate Bridge Movable Median Barrier – on-going

- Highway 101 Widening, Interchange and HOV Projects – on-going
- Octavia Boulevard Project – currently under construction
- Multi-unit Housing Development on Bay Street – currently under construction
- Fort Baker Project – preliminary planning

This section provides a summary of the cumulative impacts assessment conducted for resource areas covered in this Community Impact Assessment. The cumulative assessment considers the potential for the project, in combination with the projects listed above, to have impacts on the physical environment of the Presidio and surrounding area. The Doyle Drive Project would likely contribute to the cumulative impacts on the following areas: transportation including traffic, parking and bicycle/pedestrian facilities; socioeconomic conditions; and land use.

### **Traffic**

Doyle Drive is part of a limited system of gateways in and out of the City of San Francisco. The Golden Gate Bridge, including U.S. Highway 101 in Marin County and the San Francisco-Oakland Bay Bridge are part of this system providing access to the city. The most recent 2001 Regional Transportation Plan for the San Francisco Bay Area (MTC, 2001) notes that there are several ongoing projects over the next several years that could affect traffic operations on these facilities. During the construction period, delays associated with other projects could result in a cumulative effect of increased traffic delay in terms of access into the City. These delays would be considered temporary. The potential for increased delay and congestion would depend on the timing of construction activities associated with each project, the amount of traffic diversion from these facilities to Doyle Drive, and measures that would be implemented to eliminate or reduce potential impacts such as public awareness campaigns and increased transit service.

Long-term baseline traffic conditions (2030 No-Build) in the Doyle Drive Project study area including the Presidio were analyzed using the travel demand forecasting model that was developed by the City and the SFCTA. Future conditions in this model are consistent with assumptions made about growth and transportation improvements in MTC's regional travel demand forecasting model and with the draft Presidio Transportation Improvement Plan (PTMP). Therefore, the Doyle Drive Project was analyzed in the context of long-range traffic conditions for the region. Overall, the project would result in a benefit or little change to long-term traffic conditions in the region. The Doyle Drive Project would also support transit-related plans in the area.

### **Parking**

Based on known projects within the Presidio, the loss of parking associated with the Doyle Drive Project would not result in a cumulative impact to parking within the Presidio as the existing parking supply would be able to handle the cumulative demand for parking.

### **Bicycle and Pedestrian Facilities**

During construction of either of the Doyle Drive Project build alternatives there is a potential for cumulative impacts to bicycle and pedestrian facilities within the Presidio and surrounding neighborhoods. During the construction period it is likely that various bicycle and pedestrian routes would be temporarily closed or detoured. If other projects also require the closure or detour of bicycle and pedestrian facilities, a cumulative impact would occur. Once completed, a new Doyle Drive would not contribute to cumulative impacts to bicycle and pedestrian facilities as existing routes would be maintained.

### **Socioeconomics**

The Doyle Drive Project would not contribute to cumulative impacts to socioeconomic conditions in the Presidio and the surrounding region since neither of the build alternatives would add to the growth or reduction of population, jobs, or housing. Although the Presidio Parkway Alternative would potentially remove six residential units from the local housing supply, the loss of these housing units would be offset by

the housing that would be provided as part of the Presidio development plans outlined in the PTMP, in addition to the new housing construction occurring throughout the City of San Francisco.

No existing community facilities would be affected by the Doyle Drive Project. The project would not contribute to an overall cumulative impact or loss of community facilities within the Presidio or region. Although there is the potential for the removal of the proposed museum site at Building 610, replacement sites are available at the hangers located on the west end of Crissy Field. Other current development, including the LDAC, transit center, and future development plans such as the water recycling plant and Crissy Marsh expansion, would not be affected by the Doyle Drive Project.

### **Land use**

When combined with other development projects which would require temporary and permanent building removal in the Presidio, the removal of buildings associated with the Doyle Drive Project alternatives would contribute to a cumulative impact on the number of structures available within the Presidio.

The Replace and Widen Alternative - Detour Option would require the temporary removal and return of four Mason Street warehouses, Buildings 1182, 1183, 1184 , and 1185 in order to accommodate the temporary detour for the Marina connector ramp. The Presidio Parkway Alternative could require the temporary removal and return of Building 201, which is currently occupied by the Trust and used as storage and office space.

The buildings permanently removed by the Doyle Drive Project alternatives would include: Building 1158 with the Replace and Widen Alternative – No Detour Option; Buildings 605, 606, 610 and 653 with the Replace and Widen Alternative –Detour Option; Buildings 201, 204, 205, 230, 231, 670, 605, 606, 1158 with the Presidio Parkway Alternative – Diamond Option; and Buildings 201, 204, 205, 230, 231, 670, 605, 606, 1151, and 1158 with Presidio Parkway Alternative – Circle Drive Option. The Park Presidio Alternative with the Merchant Road slip ramp option would require the permanent removal of four residential buildings (Buildings 1253 – 1256). The resulting reduction in number of buildings would limit the space available for implementation of specific land uses within certain areas of the Presidio, primarily the Crissy Field and Main Post planning areas. Overall land use patterns within these specific planning areas of the Presidio are not likely to be affected by the removal of these buildings. However, should additional buildings in these planning areas be removed by other future projects, the ability of these planning areas to achieve the desired build-out may be jeopardized, resulting in a cumulative impact. The temporary and permanent removal of buildings by the Doyle Drive project would be fully compensated for in keeping with the Trust's goal of financial self-sufficiency by 2013.

Overall, during the construction period of the Doyle Drive Project there is the potential for temporary cumulative impacts related to traffic, bike/pedestrian facilities, and visual impacts to occur if other nearby construction activities are simultaneously occurring. However, with the exception of land use impacts, there would be no long-term cumulative impacts associated with traffic, parking, bike/pedestrian facilities, and socioeconomics as a result of the Doyle Drive Project in combination with other projects within the study area.



## **SECTION 6: PERSONS AND ORGANIZATIONS CONTACTED**

### **CITY AND COUNTY AGENCIES**

Fernando Juarez, Community Affairs, San Francisco Fire Department  
Ed Martinez, San Francisco Fire Department

### **REGIONAL AGENCIES**

Hing Wong, Association of Bay Area Governments (ABAG)

### **FEDERAL AGENCIES**

San Francisco Bay Conservation and Development Commission (BCDC)

The Presidio Trust

- Don Bliss, Telecommunications
- John Fa, Associate Director of Development
- Jim Kelly, Utilities Manager
- Mary Leader, Community Relations
- Amy Marshall, Senior Transportation Planner
- Ann Ostrander, Housing
- Peter Owens, Senior Planner
- John Pelka, Senior Planner
- Richard Tilles, Transportation Project Manager
- Mark Helmbrecht, Transportation Program Manager

Assistant Chief Bill Delapaline, Presidio Fire Department

Lieutenant Jeff Wasserman, U.S. Park Police

### **OTHER**

Darin Delagnes, The John Stewart Company, management company for The Presidio Residences

Elizabeth Jordan, Executive Director, Presidio YMCA

Carol Prince, Golden Gate National Parks Conservancy



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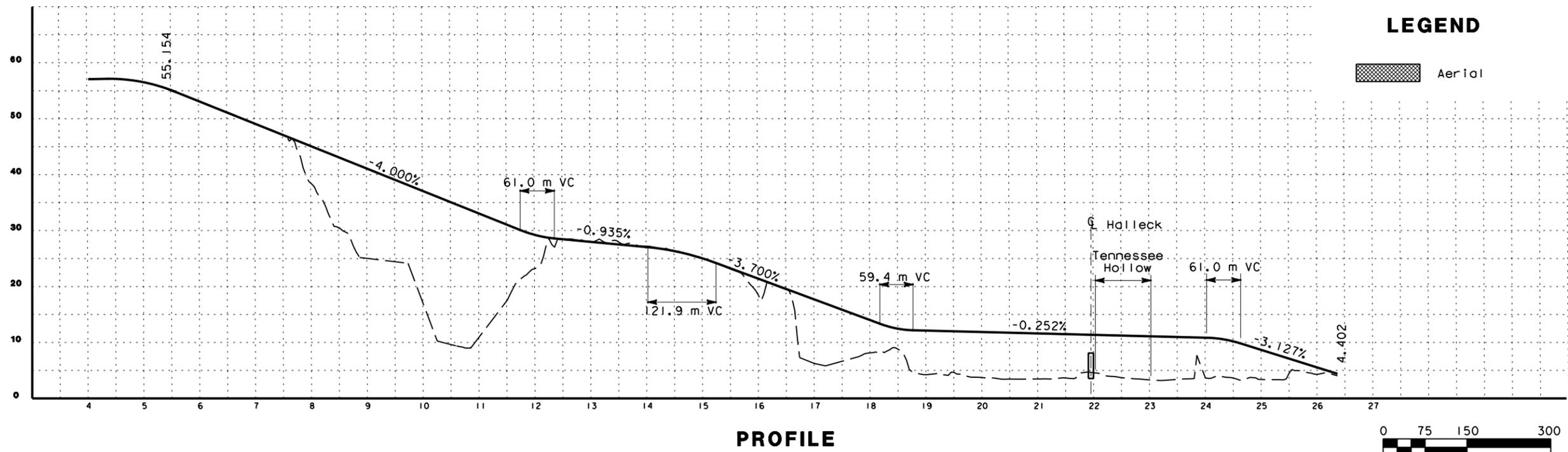
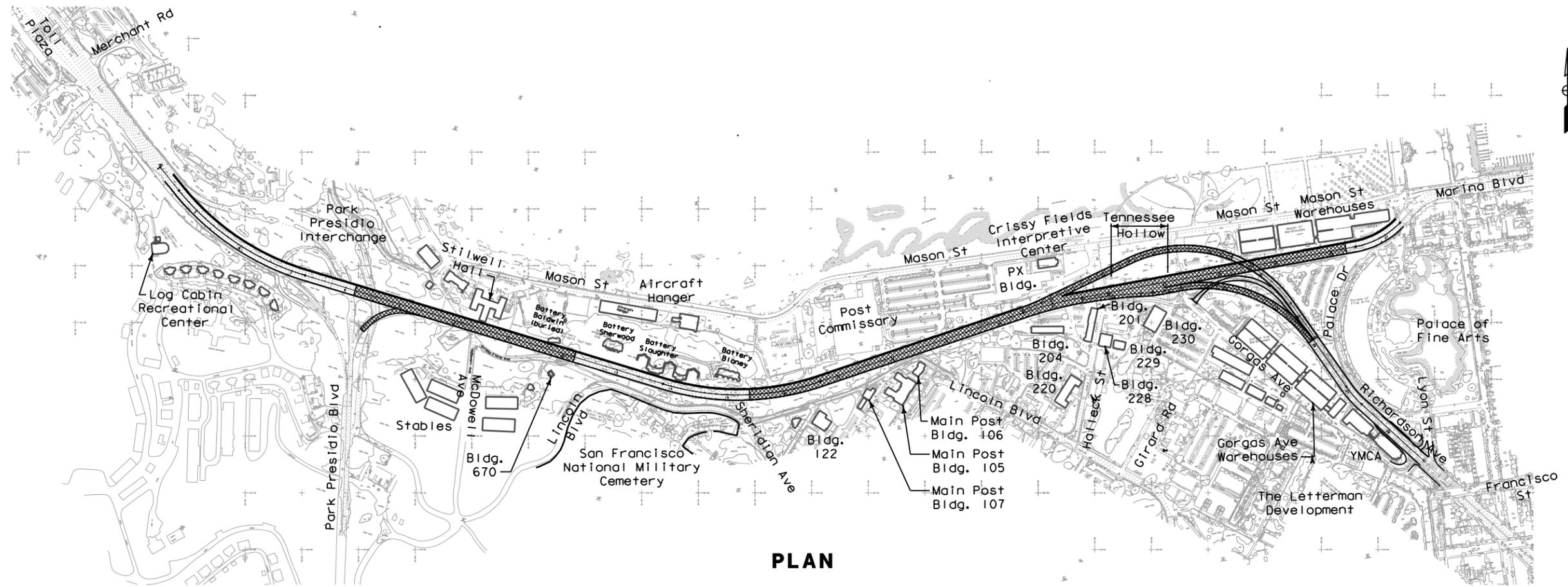
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## **APPENDIX A**

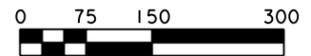
### DETAILED ALIGNMENT AND DESIGN OPTION PLAN SHEETS

1. No Build

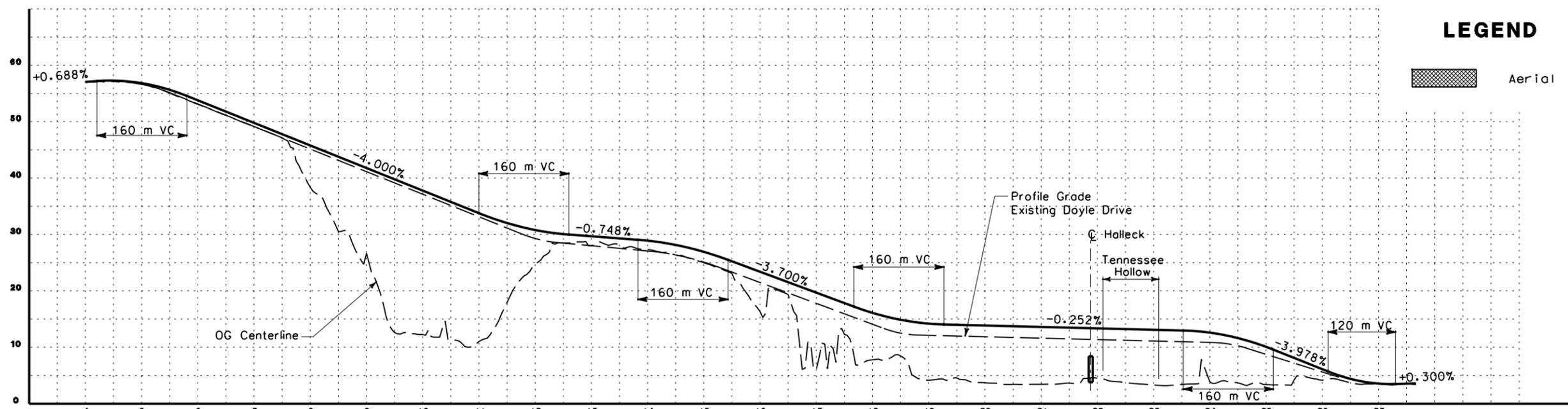
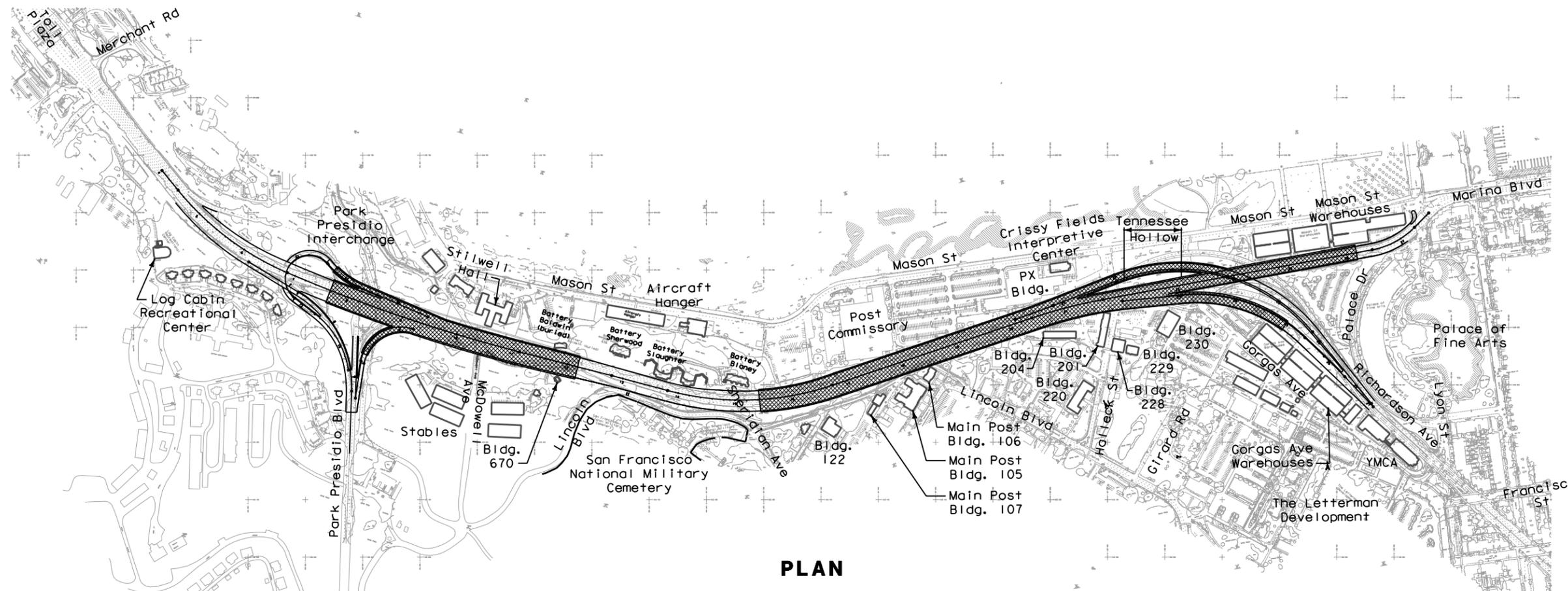


**LEGEND**

 Aerial



## 2. Replace and Widen - No Detour



### LEGEND

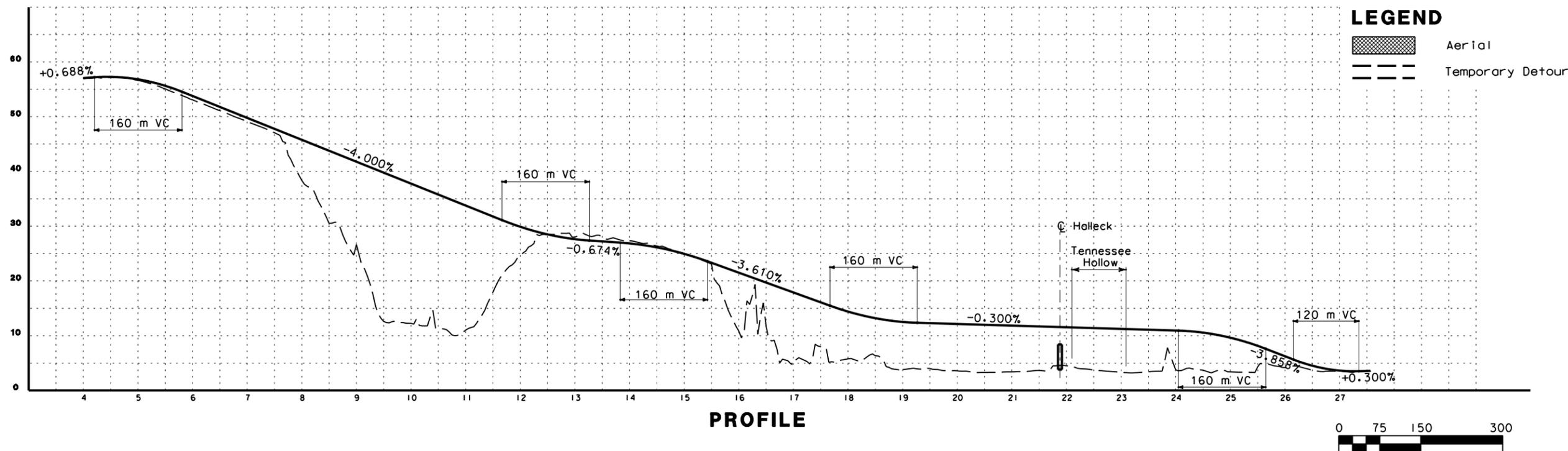
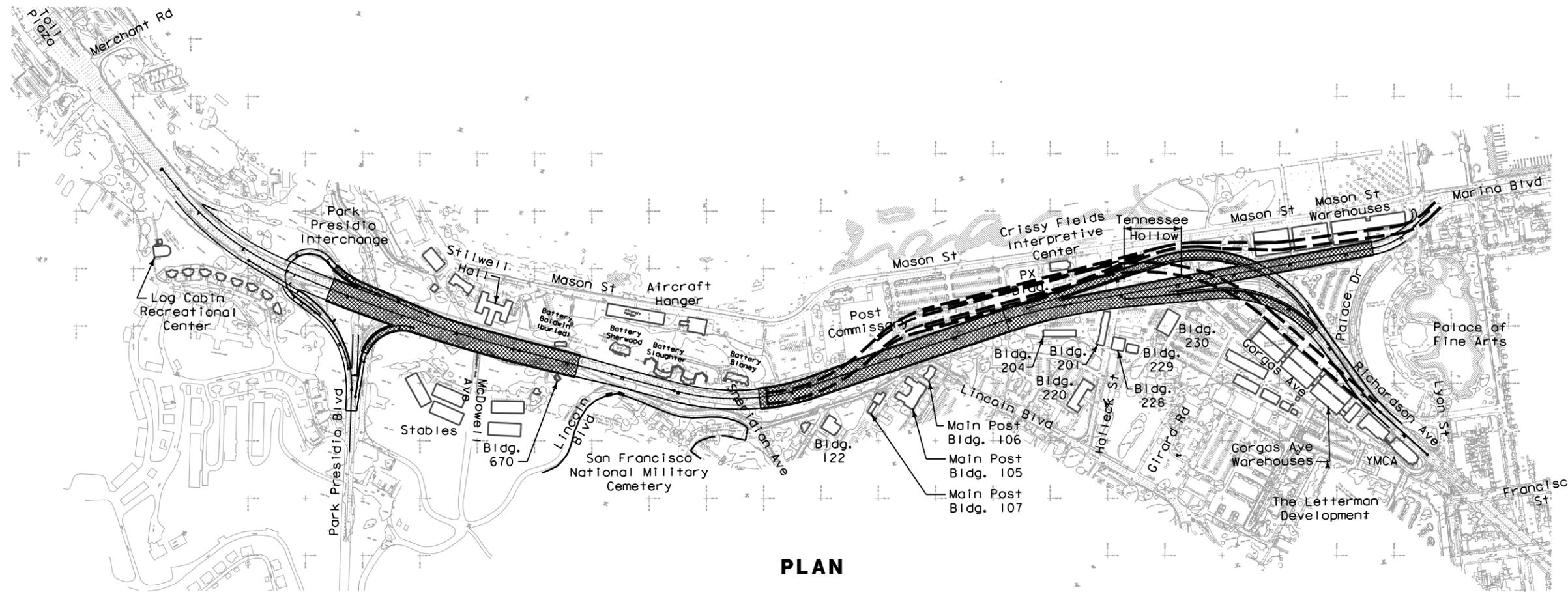
Aerial



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## 2. Replace and Widen - With Detour



**LEGEND**

- Aerial
- Temporary Detour

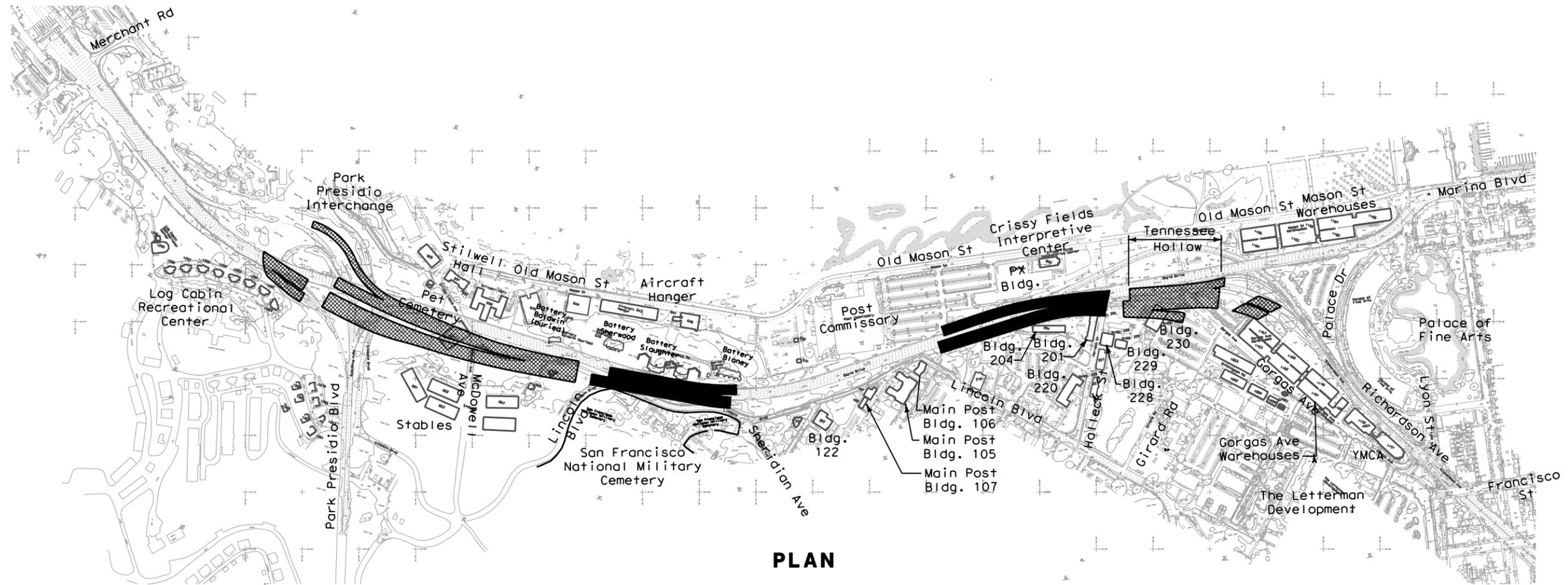


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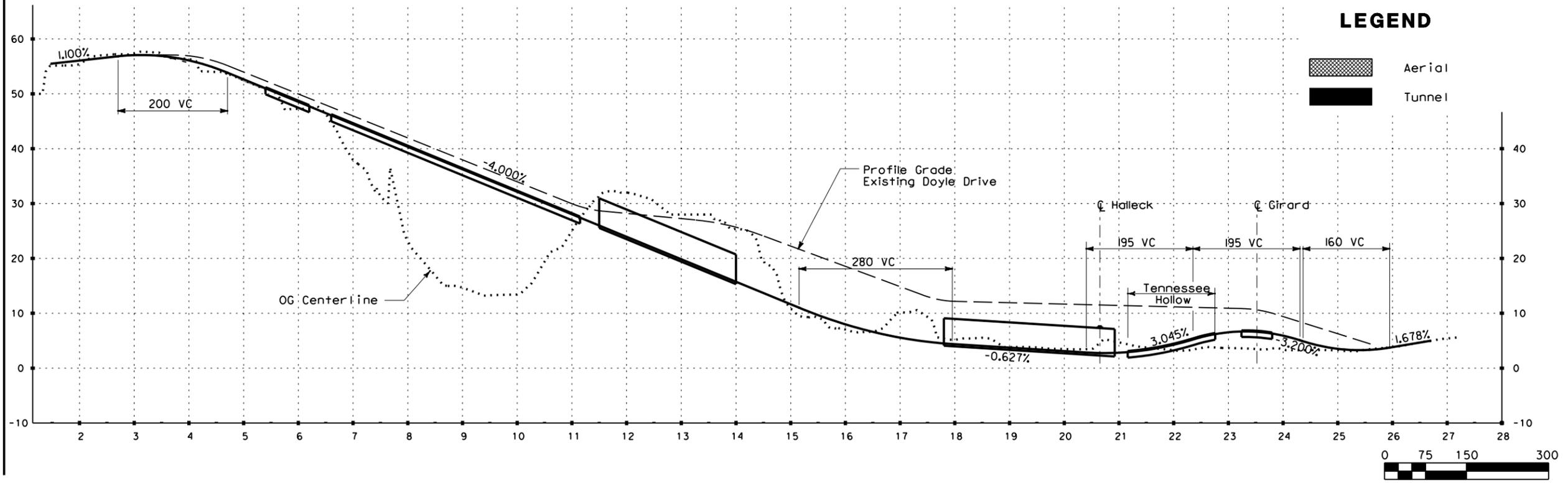


NOTE: REFER TO CUT SHEETS FOR ADDITIONAL ALTERNATIVE 5 OPTIONS

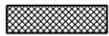
5. Presidio Parkway

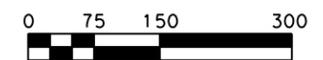


PLAN



LEGEND

-  Aerial
-  Tunnel





## **APPENDIX B**

### SHADE ANALYSIS FOR TENNESSEE HOLLOW

The NPS and the Trust plan to restore the Tennessee Hollow creek system and its associated riparian corridor to its natural state, as discussed in the 1994 General Management Plan Amendment (GMPA) and the PTMP. The Trust is preparing the Tennessee Hollow Watershed Project Environmental Assessment. The project features a range of alternatives each with an emphasis on restoring the Tennessee Hollow creek system. The Trust and NPS completed the Crissy Marsh Technical Study, which examined the health and function of the marsh. The Trust and NPS will evaluate a full range of alternatives for the long-term health and viability of the marsh, including the area of Tennessee Hollow within the Doyle Drive corridor. Proposed vegetation within the Doyle Drive corridor would include brackish marsh species, such as willows, sedges, rushes and other flowering herbaceous wetland species. The following evaluates shade and wildlife corridor constraints on the future restored Tennessee Hollow creek system.

### **Shade Constraints**

For a bridge, a full shadow that is cast is determined by the horizontal width of the bridge, and by its height. For split or multiple bridges, the combined horizontal width of the aerial elements determines the full shadow that is cast. The extent of potential shading effects of the No-Build Alternative and the build alternatives on a future restored Tennessee Hollow would vary due to the design aspects of each alternative. Currently, within the future restored Tennessee Hollow study corridor,<sup>19</sup> Doyle Drive consists of a main bridge and two ramps (eastbound and westbound). As identified in Table B-1, the total aerial road area is 0.394 hectares (0.926 acres) under the No-Build Alternative.

As with the No-Build Alternative, within the future restored Tennessee Hollow study corridor, the Replace and Widen Alternative would also consist of a viaduct and two ramps, and follow a similar alignment. However, the Replace and Widen Alternative would replace the extant viaduct in the Tennessee Hollow area with wider structures that meet the most current seismic and structural design, for a total aerial road area of 0.466 hectares (1.151 acres) under the Detour option, and 0.484 hectares (1.196 acres) under the No Detour option. The Retrofit and Widen Alternative would cast approximately 18 percent and 22 percent (for the Detour and No Detour options, respectively) more full shade on a future restored Tennessee Hollow than the No-Build Alternative.

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<sup>19</sup> For purpose of the comparisons, and based on the positions of tunnels and at-grade construction for some of the alternatives, the corridor is calculated to extend from design Stations 22 to 23 (100 meters). The height of the roadway structure above the projected water level in the restored Tennessee Hollow would range from roughly 6 meters for the Parkway Alternative to about 9 meters for the highest of the other Build Alternatives.

**TABLE B-1  
SHADE CONSTRAINTS, BY ALTERNATIVE, WITHIN THE  
FUTURE RESTORED TENNESSEE HOLLOW STUDY CORRIDOR**

<b>Alternative</b>	<b>Average Total Aerial Road Width within Restored Tennessee Hollow Corridor (meters [feet])</b>	<b>Total Aerial Road Area within the Restored Corridor (hectares [acres])</b>	<b>Percentage of Change in Shade from No-Build Conditions</b>
No-Build Alternative	39.4 (129.3)	0.394 (0.926)	--
Replace and Widen Alternative, Detour	46.6 (152.9)	0.466 (1.151)	+18
Replace and Widen Alternative, No-Detour	48.4 (158.8)	0.484 (1.196)	+22
Presidio Parkway Alternative (no difference between Diamond and Circle Drive Options)	37.5 (123.0)	0.375 (0.926)	-5

Source: Parsons Brinckerhoff Quade & Douglas, 2004.

The effect of shade of the Presidio Parkway Alternative is the same for the Diamond and Circle Drive options. The Presidio Parkway Alternative (including the Diamond and Circle Drive options), which also replaces the extant viaduct, is 0.375 hectares (0.926 acres) in aerial extent. The Presidio Parkway Alternative would cast 5 percent less full shade than the No-Build Alternative.

This analysis of aerial extent, however, is a metric that is restricted solely to width, and the effects of shade are more complex, as described below and in the Technical Memorandum included.

This NES approached the more detailed analysis of shade (and its impact) for Doyle drive in three ways: an estimate of shade itself under the different alternatives (see Technical Memorandum); examining viaducts and bridges in the Bay Area; and incorporating the results of a recently available Master’s Thesis (SanClements, 2003), which is one of the few to conduct controlled field observations in an analogous context.

**Shade Analysis**

Some plants have the ability to survive in various light environments, while other plants only favor sun or shade environments. Riparian and estuarine species typically fall in both of these categories, usually based on photosynthesis pathways. Theoretically and empirically, the distinction is clear, but as a practical matter quantifying effects of shade on any individual species is poorly understood due to the interaction of multiple factors in nature. For example, Callaway (1992) determined that shade was critical to the survival of blue oak (*Quercus douglasii*) seedlings, but that at least one other factor (acorn predation) was reduced by shade and protection from herbivores may have been as important as shade tolerance.

The path of a shadow is the opposite of the path of the sun. The sun rises in the east and sets in the west. Shadows cast in the morning will fall to the west. At solar noon, when the sun is the highest overhead to the south, shadows will fall to the north. Shadows cast in the evening will fall to the east. During the course of the year, the arc of the sun through the sky is at its highest point during the summer solstice, providing the greatest amount of sunlight. At its lowest point at the winter solstice, the sun provides the least amount of sunlight. As a result, noontime shadows are shortest around June 21st and longest around December 21st.

Due to the obvious complexity of the physical phenomenon of moving shade and the equal complexity of plant interaction, we chose to standardize the comparison using the size of the shadow at summer solstice. The summer solstice was chosen because in the one study conducted to assess effect (SanClements [2003], see below), the researcher did not establish any difference in plant/shadow reaction beyond the shadow zone of full sunlight in midsummer. The roadway width plus the sun angle adds to 0.4 meters to the width of the shadow on the ground, a small enough amount to allow comparisons using the “total aerial road area within the restored corridor” from Table B-1.

### **Viaducts and Bridges in the Bay Area**

The preparers of this NES examined three highway bridges in the San Francisco Bay area, ranging from 4.6 to 9.1 meters (15 to 30 feet) high and 6.1 to 30.5 meters (20 to 100) feet wide, and spanning tidal, brackish and freshwater areas in a variety of azimuths. Where vegetation was homogenous, composition was estimated a distance of 15.2 meters (50 feet); when more than two or three species were present, line transects 7.6 – 15.2 meters (25-50 feet) in length were walked with observations of dominant plants at points placed 1.5 meters (5 feet) apart.

Bridges in the sample less than about 6.1 meters (20 feet) high created a zone of bare ground directly below the center; higher bridges had nearly continuous but sparse vegetation. There was no measurable effect of shade in species composition on either side of any of the bridges, and little difference in observable plant vigor. A summary of bridge and viaduct characteristics, as well as habitat type and transect results is given in Table B-2.

### **New Relevant Research**

SanClements (2003) studied the effects of shading by bridges on estuarine wetlands. The study was designed to address the lack of information on this topic, with particular attention to environmental analysis that helps to quantify impacts and develop reasonable mitigation ratios for impact. Although performed in North Carolina, the structures examined were similar to those proposed at Doyle Drive and had the same range of brackish wetlands that might be expected in a restoration planting in this area. The species used in the thesis was principally *Spartina*, a different species from the one planted at Crissy Marsh (and observed at Damon Slough and Lake Merritt Creek, presented in Table B-2) but with the same ecological requirements. SanClements considered *Spartina* as likely to suffer from decreased solar radiation. He measured photosynthetically available light, soil nitrogen and attributes of plant vigor such as numbers of flowers and stems. The key factor derived to explain the observed effects of the bridges was Height:Width ratio (HW). The study found that HWs less than 0.5 had a strong effect immediately under the bridge, decreasing to “no effect” around 0.7.

### **Results and Conclusions – Effects of Shade In Tennessee Hollow Corridor**

Using SanClements approach, the existing structures have an average HW of 0.57; the viaduct over Tennessee Hollow (Replace and Widen Alternative) has an average HW of 0.37 and 0.34 for the detour and no-detour options, respectively; and the causeway (Presidio Parkway Alternative) has an average HW of 0.02 (see Table B-3). By this standard both the no build and build alternatives could have a adverse effect on restoration that attempts to restore shade-intolerant plants.

The literature on shade effects in wetland communities is limited. The direct observations made for this report suggest that shade effects are restricted to the area immediately under the structure. SanClements' work demonstrates that in this shade footprint for the Replace and Widen Alternative the plant palette for restoration would be restricted to shade tolerant plants, in an area 0.090 hectares (0.222 acre) and 0.072 hectares (0.178 acre) (No Detour and Detour options respectively) greater than current shade conditions under the No-Build Alternative. This does not eliminate wetland or estuarine plants, entirely, of course: for example slough sedge (*Carex obnupta*) planted at Crissy Marsh is considered shade-tolerant (<http://pnw.sws.org/forum/BasRestGuideHabitatWksh.PDF>).

Both the extremely low average HW for Presidio Parkway Alternative and our observations at Bay Area bridges suggest that no vegetation could establish under the causeway, a net reduction of 0.375 hectares (0.926 acres) for restoration at Tennessee Hollow (see Table B-3). It is worth noting, however, that the causeway is low to the ground and the effect of its shadow would rapidly attenuate.

**TABLE B-2  
SUMMARY OF BRIDGE AND VIADUCT SURVEY RESULTS**

Location	Bridge height (meters)	Bridge orientation	Habitat type	Comments	Transect Results									
					Point #1	Point #2	Point #3	Point #4	Point #5	Point #6	Point #7	Point #8	Point #9	Point #10
<b>I-880 at Lake Merritt Outlet-Oakland</b>	6.1	NW-SE	Brackish marsh	Transect on eastern side of bridge, western side had basically same vegetation with addition of <i>Spartina foliosa</i> and <i>Limonium californicum</i>	<i>Salicornia virginica</i> , <i>Grindelia stricta</i>	<i>Atriplex</i> sp., <i>Plantago</i> sp.	<i>Grindelia stricta</i>	<i>Jaumea carnosa</i>	<i>Plantago</i> sp., <i>Grindelia stricta</i>	<i>Lolium multiflorum</i>	<i>Plantago</i> sp.	<i>Frankenia salina</i>	<i>Jaumea carnosa</i>	<i>Grindelia stricta</i>
<b>I-880 at Damon Slough-Oakland</b>	4.6	NW-SE	Salt marsh	Vegetation homogenous in composition and height throughout transect. Small, scattered <i>Salicornia</i> plants present under bridge from its edge to a distance of 1.5 meters.	<i>Spartina alterniflora</i> , <i>Salicornia virginica</i>	<i>Spartina alterniflora</i> <i>Salicornia virginica</i>	<i>Spartina alterniflora</i> <i>Salicornia virginica</i>	<i>Spartina alterniflora</i> <i>Salicornia virginica</i>	<i>Spartina alterniflora</i> , <i>Salicornia virginica</i>					
<b>Alvarado Blvd at flood control channel-Fremont</b>	7.6	WNW-ESE	Fresh-water marsh	Vegetation under the bridge consisted of scattered <i>Rumex</i> sp., <i>Artemisia douglasiana</i> , and <i>Bromus</i> sp., which diminished towards the center of the bridge but had no discernible break.	<i>Scirpus</i> sp., <i>Artemisia douglasiana</i> , <i>Solidago californica</i>	<i>Solidago californica</i> , <i>Agrostis</i> sp., <i>Cynodon dactylon</i>	<i>Lotus corniculatus</i> , <i>Agrostis</i> sp.	<i>Bromus</i> sp.	<i>Agrostis</i> sp.	<i>Typha latifolia</i> , <i>Polygonum</i> sp.	<i>Scirpus</i> sp., <i>Polygonum</i> sp.	No data collected	No data collected	No data collected

Source: Environmental Science Associates, 2004

**TABLE B-3  
SUMMARY OF SHADE EFFECTS OF THE NO-BUILD AND BUILD ALTERNATIVES USING  
HEIGHT/WIDTH RATIOS**

<b>Alternative</b>	<b>Height/Width Ratio</b>	<b>Change in Shade Conditions From No-Build (hectares [acres])</b>	<b>Recommended Plant Type</b>
No-Build	0.57	--	shade-tolerant
Replace and Widen Alternative, No-Detour	0.34	+0.090 (0.222)	shade-tolerant
Replace and Widen Alternative, Detour	0.37	+ 0.072 (0.178)	shade-tolerant
Presidio Parkway Alternative (no difference between Diamond and Circle Drive Options)	0.02	+ 0.375 (0.926)	no vegetation

Source: Environmental Science Associates, 2004 based on data provided by Parsons Brinckerhoff Quade & Douglas, 2004.

**Wildlife Corridor Constraints at Tennessee Hollow**

The viaduct or causeway also comprises a potential impediment to wildlife using the restored Tennessee Hollow area for movement to and from Crissy Marsh.<sup>20</sup> The area under the viaduct will be shaded, as discussed above, and will have a vegetation structure that is expected to support low-growing plants and be less complex than the rest of the corridor. It is useful to consider this constraint as similar to a wildlife crossing structure, deliberately placed under a highway as mitigation. Such structures are arguably much less of a problem for wildlife than crossing a busy highway, but present their own challenges.

Size, substrate<sup>21</sup>, and noise are the components most likely to affect wildlife use. The size of the viaduct under the Retrofit and Widen Alternative, however, is not likely to be limiting. Even for large mammals, the effect of the size of the underpass decreases as the passage becomes larger; in one study of mule deer (Reed, 1981) the diminished effect was observable at an underpass 4 X 18 X 14 m (Height X Width X Length), and the dimensions of the roadway structure for the Parkway Alternative are roughly 6 X 100 X 38 m (using Reed’s terminology). Light does not seem to be a factor as long as the end of the passage is visible (Foster and Humphrey, 1995).

For most terrestrial animals that might use the Tennessee Hollow corridor, elements such as logs and rocks could compensate for the shade-reduced vegetation (Mansergh and Scotts, 1989).

Beier (1995) recommended reducing noise in an underpass to below 60 db. From this perspective, any modification of the viaduct to increase natural lighting – and hence noise – might offset any benefits of such a project design element (grating, for example) intended to reduce the effects of shade discussed above.

Assuming that the corridor design might include logs and rocks, and that the viaduct is constructed to be as quiet as possible, this NES concludes that neither build alternative would constrain the use of the Tennessee Hollow area as a wildlife corridor for terrestrial wildlife, although some birds would be unlikely to pass

<sup>20</sup> The barrier to movement presented by Mason Street is not part of this analysis.

<sup>21</sup> “Substrate” refers to the living and non-living components covering mineral soil.

through.<sup>22</sup> Evaluating the potential use for each species likely to be present is not possible. Given the state of knowledge of this topic, species-by-species conclusions would be speculative.

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<sup>22</sup> The build alternatives would, however, be inconsistent with the management designation for Tennessee Hollow under the Presidio Trust Management Plan (Presidio Trust, 2002).

# TECHNICAL MEMORANDUM

**TO** • 204235 Files - Doyle Drive

**FROM** • Chuck Bennett

**DATE** • July 30, 2004

**SUBJECT** • Evaluation of shade effects for the *Doyle Drive Natural Environmental Study*

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## **BACKGROUND**

The natural ambient lighting that is available to plants and animals in the Tennessee Hollow area includes direct and scattered sunlight. Direct sunlight provides most of the light available, while sunlight that has been scattered in the atmosphere and reflected from the ground and waters of the Bay provides a portion of the available light. The presence of physical structures can strongly reduce the light available to plants by casting shadows – interrupting the direct sunlight that would otherwise be available. The extent to which a structure shadows any specific point on the ground depends upon the physical shape and dimensions of that structure and its distance from that specific point, as well as the geometric relationship of the structure and point with respect to the path of the sun in the sky.

The daily path of the sun across the sky is an arc that curves from east to west. The path of the shadows the sun casts on the ground is counter to the path of the sun in the sky. The sun rises in the east and sets in the west, while the shadows cast by the sun will fall to the west in the morning and will fall to the east in the afternoon. At solar noon, when the sun is due south and at its highest point overhead, shadows will fall to the north. During the course of the year, the arc of the sun through the sky is at its highest point during the summer solstice and at its lowest point at the winter solstice. As a result, noontime shadows are shortest around June 21st and longest around December 21st. On any given day, shadows are longest in the early morning and in the late evening when the sun is closest to the horizon.

The two objectives of this analysis are: 1) to provide basic information that will aid the determination of whether or not the project actions would have an adverse environmental effect on the vegetation that is anticipated to be a part of the Tennessee Hollow natural area restoration that is proposed as a part of the project; and, 2) to provide basic information about the extent and variation of shadow conditions in the Tennessee Hollow subarea due to the project alternatives.

## **IMPACTS AND MITIGATION**

### **Methodology**

The methodology of the shadow analysis of the Tennessee Hollow subarea begins with a topographic model of the vicinity and a simple structure model of the project alternatives. The next step is to calculate and depict the shadows that would be cast by each road segment within the boundaries of the Tennessee Hollow subarea. The shadow casting relies on accurate calculations of solar position for each day and time of interest. The method assumes that the area to be shadowed is flat; given the marsh use intended, this assumption introduces essentially no error. Since design of the structures is not complete, insufficient

information was available to determine support column design, numbers and locations; because the shadows cast by all support structures would necessarily fall under or within the region shadowed by the roadway, no error is introduced. The thickness of the roadway structure was assumed to be the same as the existing structures and was accounted for in the projections of the shadows from each alternative. The shadow outlines were projected onto the alternatives' plans to illustrate the extent of shadow for each alternative.

The areas of shadow and structure coverage that were used to assess the biological effect were calculated using roadway widths and segment lengths measured from project alternatives' plans. Overall, those area estimates should be accurate to within roughly  $\pm 5\%$ .

## **Shadow Impacts**

As described in the Project Description, each of the project alternatives would result in various elevated roadway structures that would span the waterway centrally located within Tennessee Hollow. The height of the roadway structure above the projected water level would range from roughly 6 meters for the Parkway Alternative to about 9 meters for the highest of the other Build or No-Build Alternatives.

Shadow from the proposed road structures would generally extend to the west and northwest of the site in the morning, to the north at noon, and to the northeast and east in the afternoon. Mid-day shadows would be longer in the winter months, with the longest noontime shadow occurring on the winter solstice, December 21st. Mid-day shadows would be shorter in the summer months, with the shortest noontime shadow occurring on the summer solstice, June 21st. Lengths of the noontime shadow at the Tennessee Hollow waterway from the tallest of the roadway alternative structures would range from about 33 m on the winter solstice to less than 4 m on the summer solstice.

*The following text describes aspects of project shadow conditions for each season:*

**Winter Solstice.** On the winter solstice at 9 AM (mid-morning), shadow from the highest structure of Alternative 2: Replace and Widen would reach nearly 33 m northwest of the base of the structure. During the morning, shadows would shorten and move to the east-southeast. At noontime, that shadow would reach, at most, nearly 16 m to the north of the structure. During the afternoon, the shadows would lengthen again and move to the east-northeast. In mid-afternoon (3 PM), that shadow would reach, at most, about 28 m to the northeast of the base of the structure.

Shadows for the Alternative 1: No Build would reach corresponding distances of 26 m, 12 m and 23 m, respectively, and shadows for the Alternative 5: Presidio Parkway would reach corresponding distances of 23 m, 11 m and 20 m.

**The Equinoxes.** On the equinoxes, the first day of spring and the first day of fall, mid-morning shadow from the highest structure of Alternative 2: Replace and Widen would reach nearly 19 m west-northwest of the base of the structures. During the morning, the shadows would shorten and move eastward. At noontime, shadow would reach nearly 7 m north of the structure. During the afternoon, the shadows would lengthen again and continue to move eastward. In mid-afternoon, the shadow would reach up to 11 m northeast of the structure.

The shadows for the Alternative 1: No Build would reach corresponding distances of 15 m, 6 m and 9 m, respectively, and shadows for the Alternative 5: Presidio Parkway would reach corresponding distances of 14 m, 5 m and 8 m.

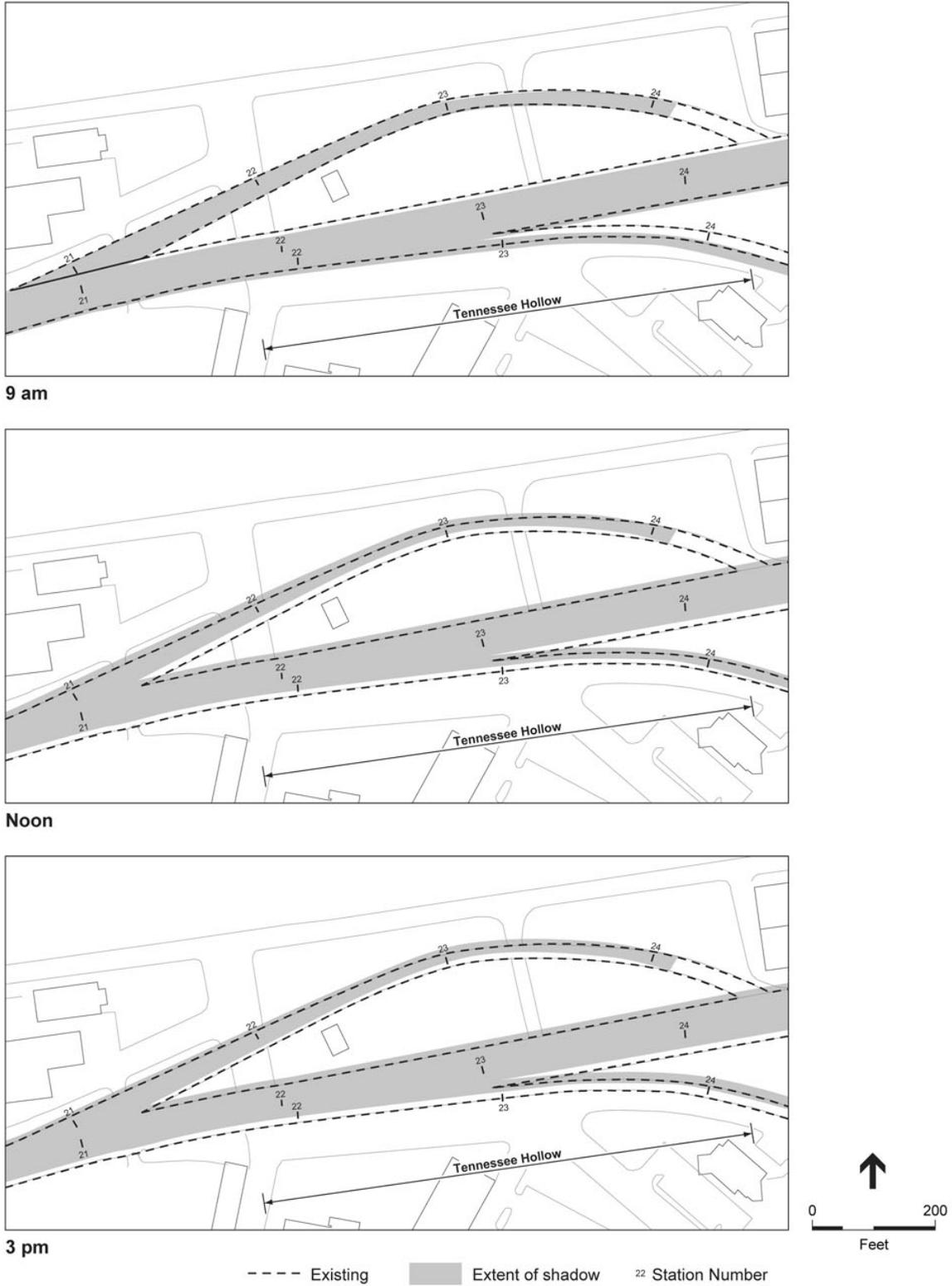
**Summer Solstice.** On the summer solstice at 9 AM (mid-morning), shadow from the highest structure of Alternative 2: Replace and Widen would reach about 12 m west of the base of the structure. During the morning, shadows would shorten and move to the east-northeast. At noontime, that shadow would reach, at most, about 3 m to the northwest of the structure. During the afternoon, the shadows would lengthen again and move to the east-northeast. In mid-afternoon (3 PM), that shadow would reach, at most, less than 5 m to the east-northeast of the base of the structure.

Shadows for the Alternative 1 No Build would reach corresponding distances of 10 m, 3 m and 4 m, respectively, and shadows for the Alternative 5: Presidio Parkway would reach corresponding distances of 9 m, 3 m and 3 m.

See Figures B-1 through B-8. As is evident, the extent of shadow is small, as is the range of variation of shadow conditions from the largest shadows of winter to the smallest shadows of summer. For that reason, the shadow conditions at the spring and fall equinoxes are not illustrated.

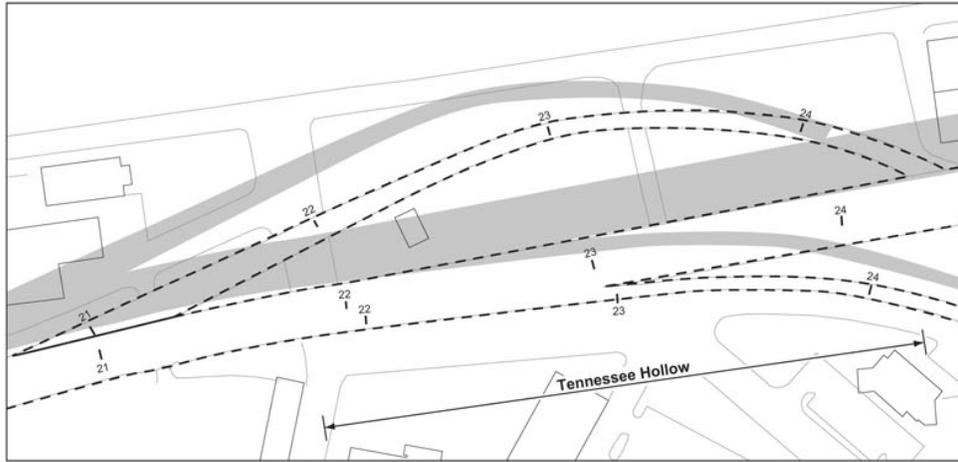
As the figures demonstrate, the quantity of shadow in the Tennessee Hollow subarea that results for Alternative: 1 No Build and Alternative 2: Replace and Widen are similar in size and in reach away from the structures, while the lower structures of the Alternative 5: Presidio Parkway result in less shadow because the roadway is partially on-grade and on lower structures. Thus, shadow from the Alternative 5: Presidio Parkway would cover less of the land area outside of the right-of-way than would the other Build and No-Build Alternatives.

**FIGURE B-1  
ALTERNATIVE 1: NO-BUILD  
SHADOW STUDY, JUNE 21**

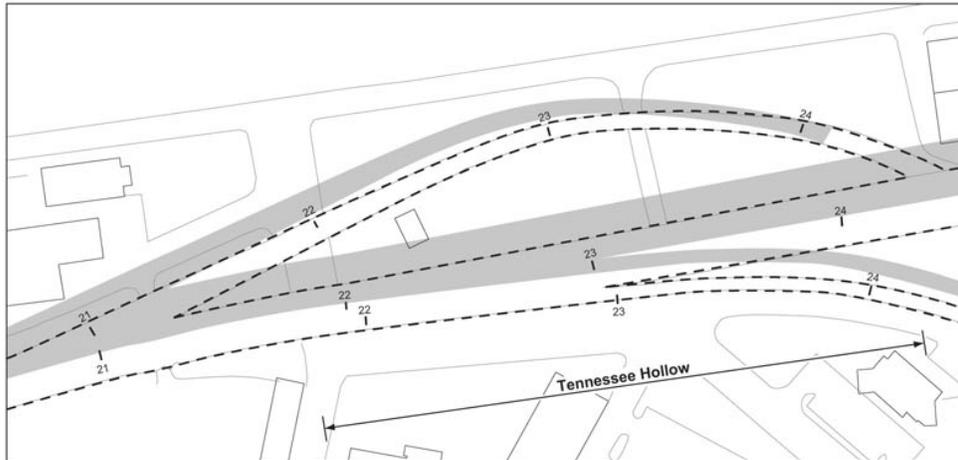


Source: Environmental Science Associates

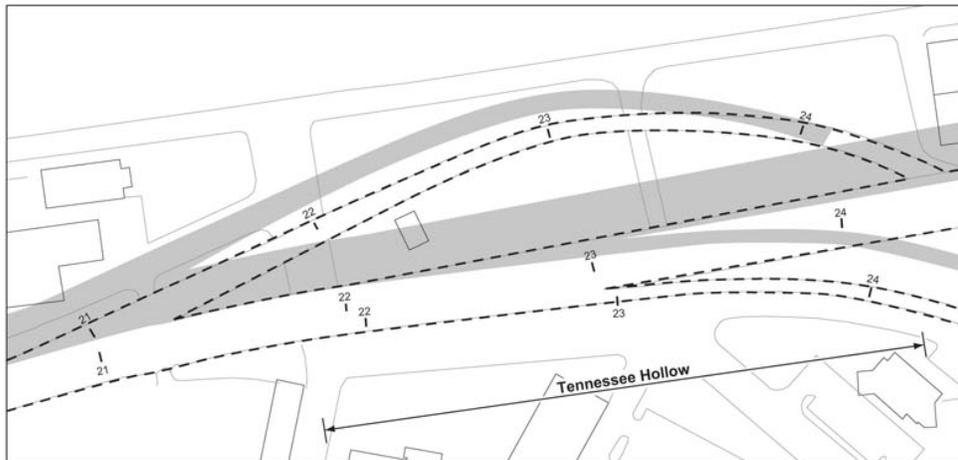
**FIGURE B-2  
ALTERNATIVE 1: NO-BUILD  
SHADOW STUDY, DECEMBER 21**



**9 am**

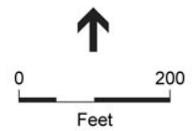


**Noon**



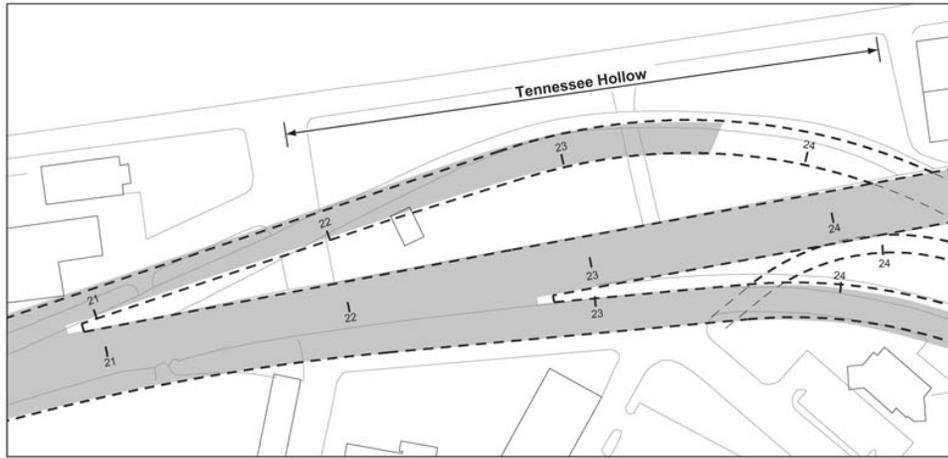
**3 pm**

--- Existing    ■ Extent of shadow    22 Station Number

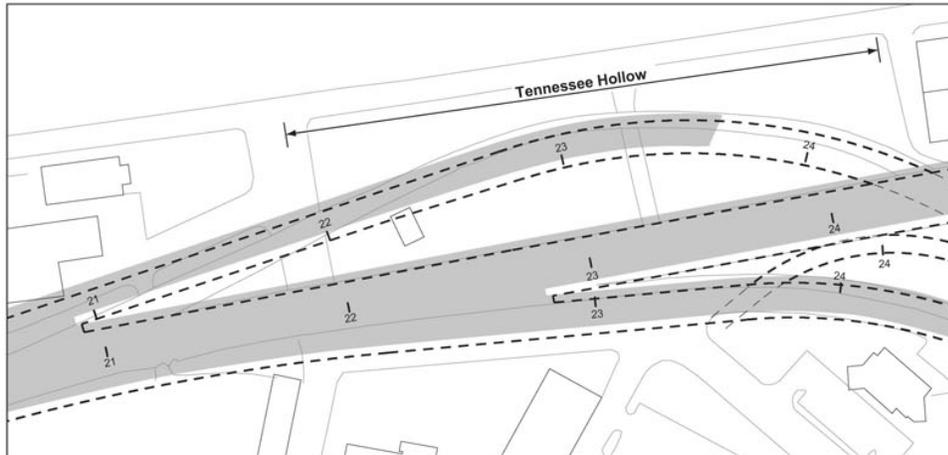


Source: Environmental Science Associates

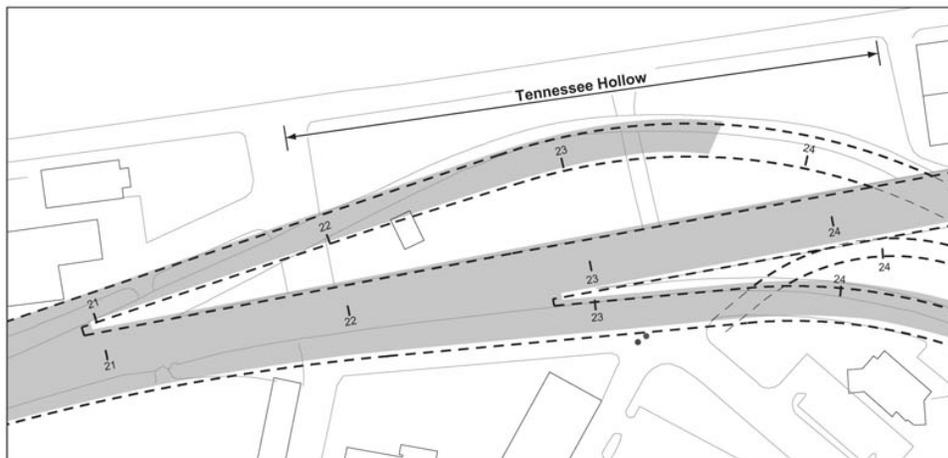
**FIGURE B-3  
ALTERNATIVE 2: REPLACE AND WIDEN WITH DETOUR  
SHADOW STUDY, JUNE 21**



9 am

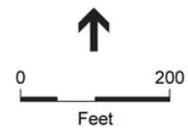


Noon



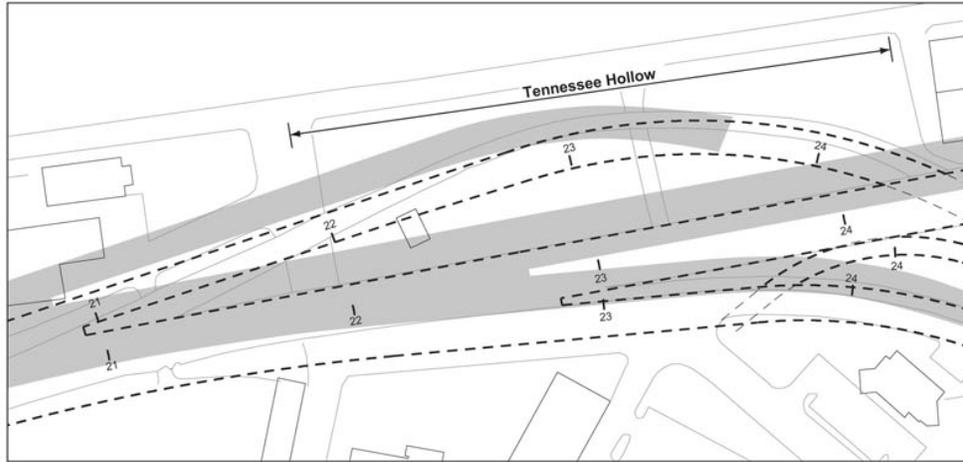
3 pm

--- Project    ■ Extent of shadow    22 Station Number

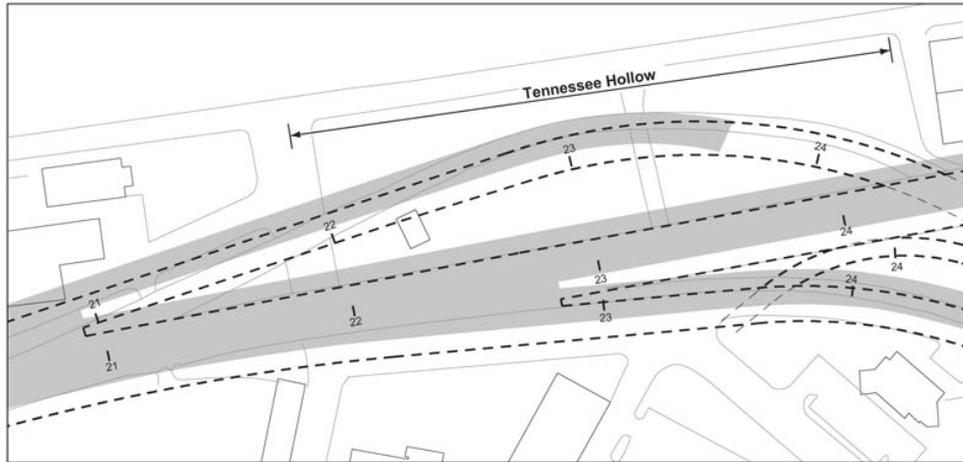


Source: Environmental Science Associates

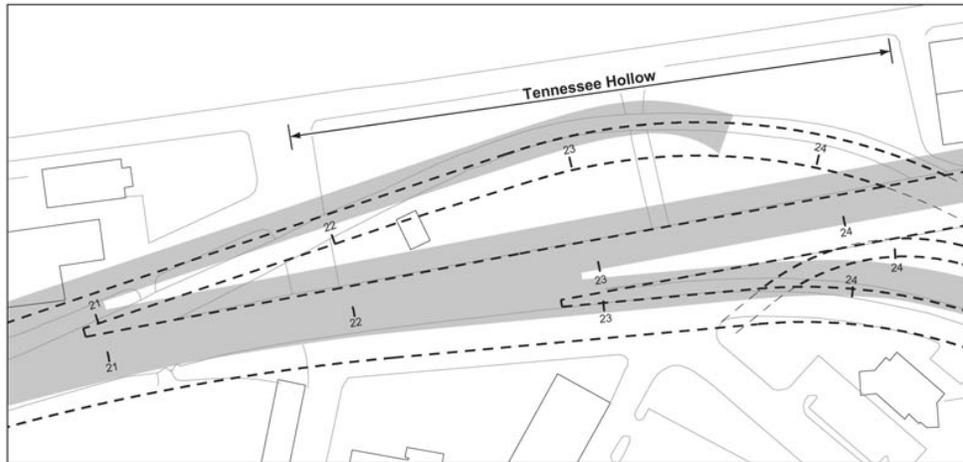
**FIGURE B-4**  
**ALTERNATIVE 2: REPLACE AND WIDEN WITH DETOUR**  
**SHADOW STUDY, DECEMBER 21**



9 am

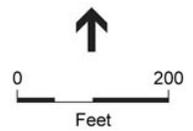


Noon



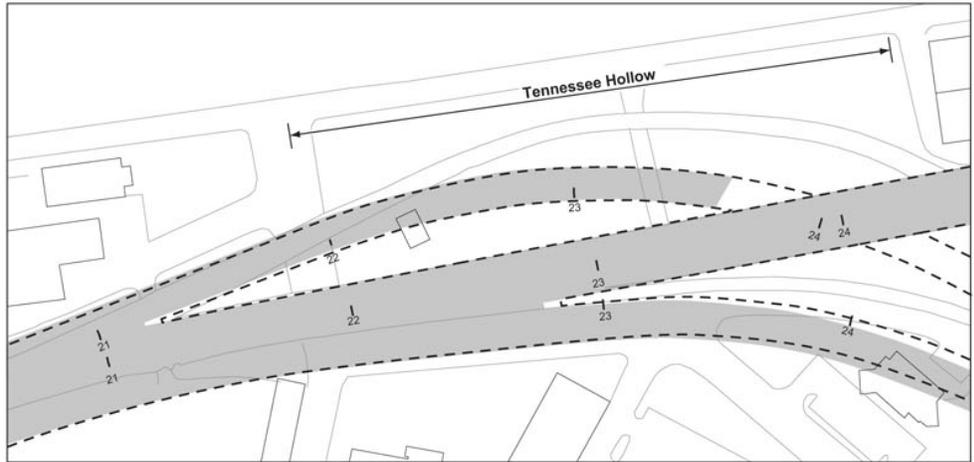
3 pm

--- Project    ■ Extent of shadow    22 Station Number

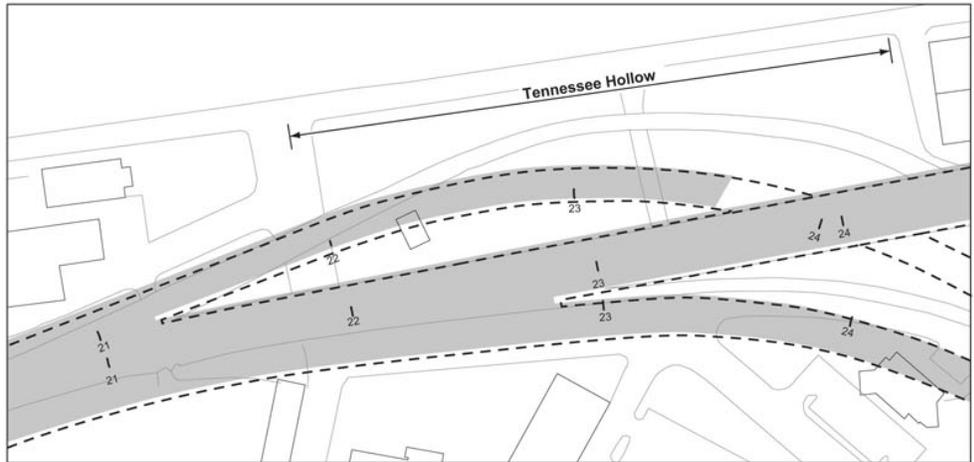


Source: Environmental Science Associates

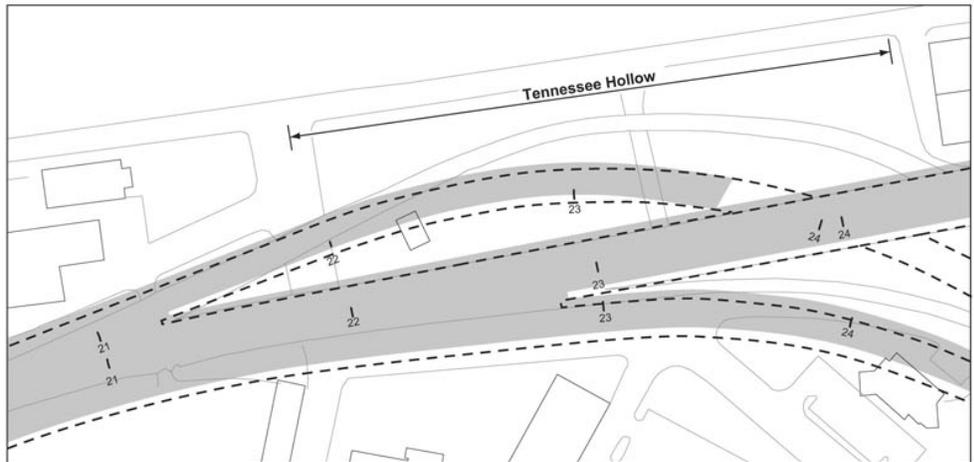
**FIGURE B-5  
ALTERNATIVE 2: REPLACE AND WIDEN WITHOUT DETOUR  
SHADOW STUDY, JUNE 21**



9 am

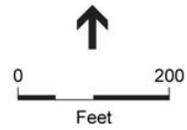


Noon



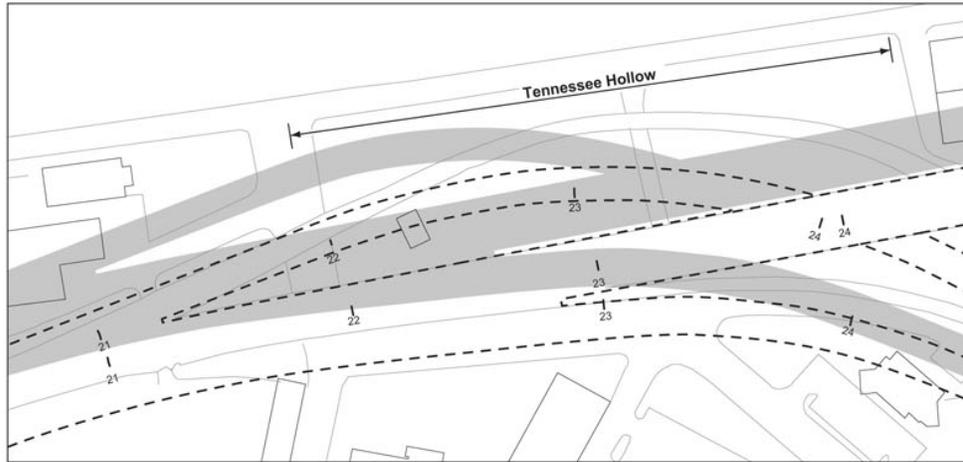
3 pm

--- Project    ■ Extent of shadow    22 Station Number

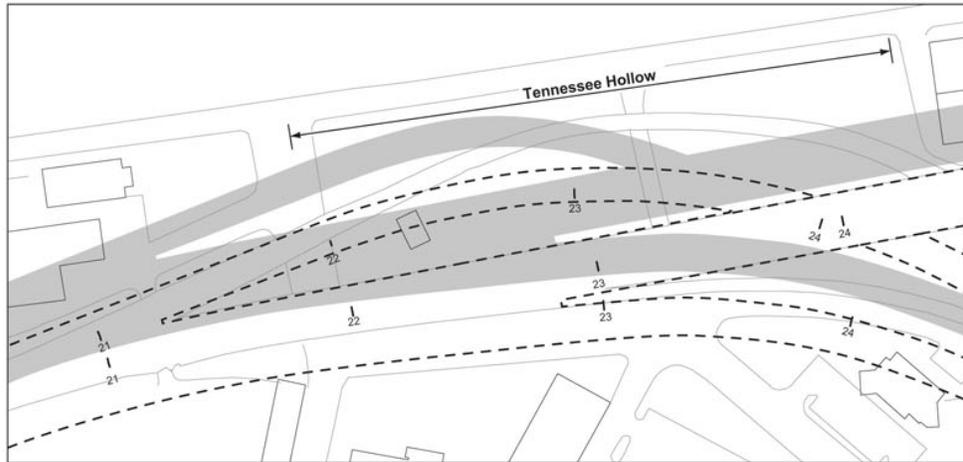


Source: Environmental Science Associates

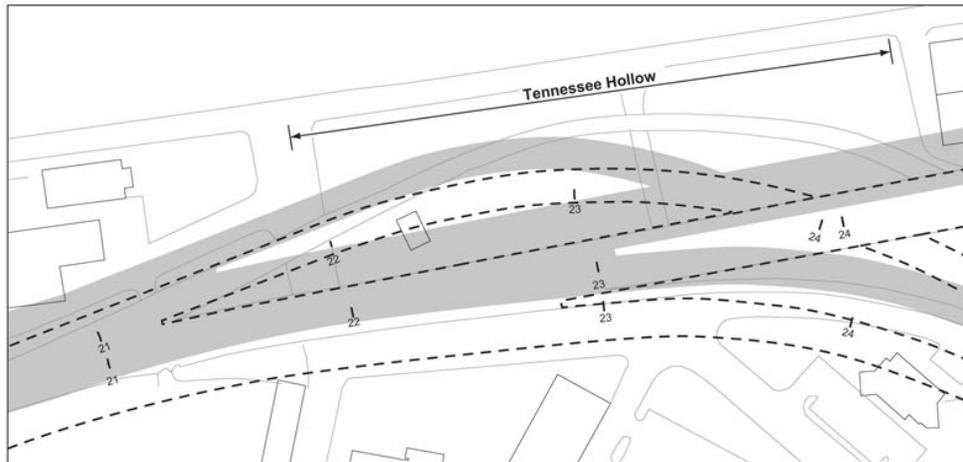
**FIGURE B-6**  
**ALTERNATIVE 2: REPLACE AND WIDEN WITHOUT DETOUR**  
**SHADOW STUDY, DECEMBER 21**



9 am

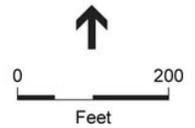


Noon



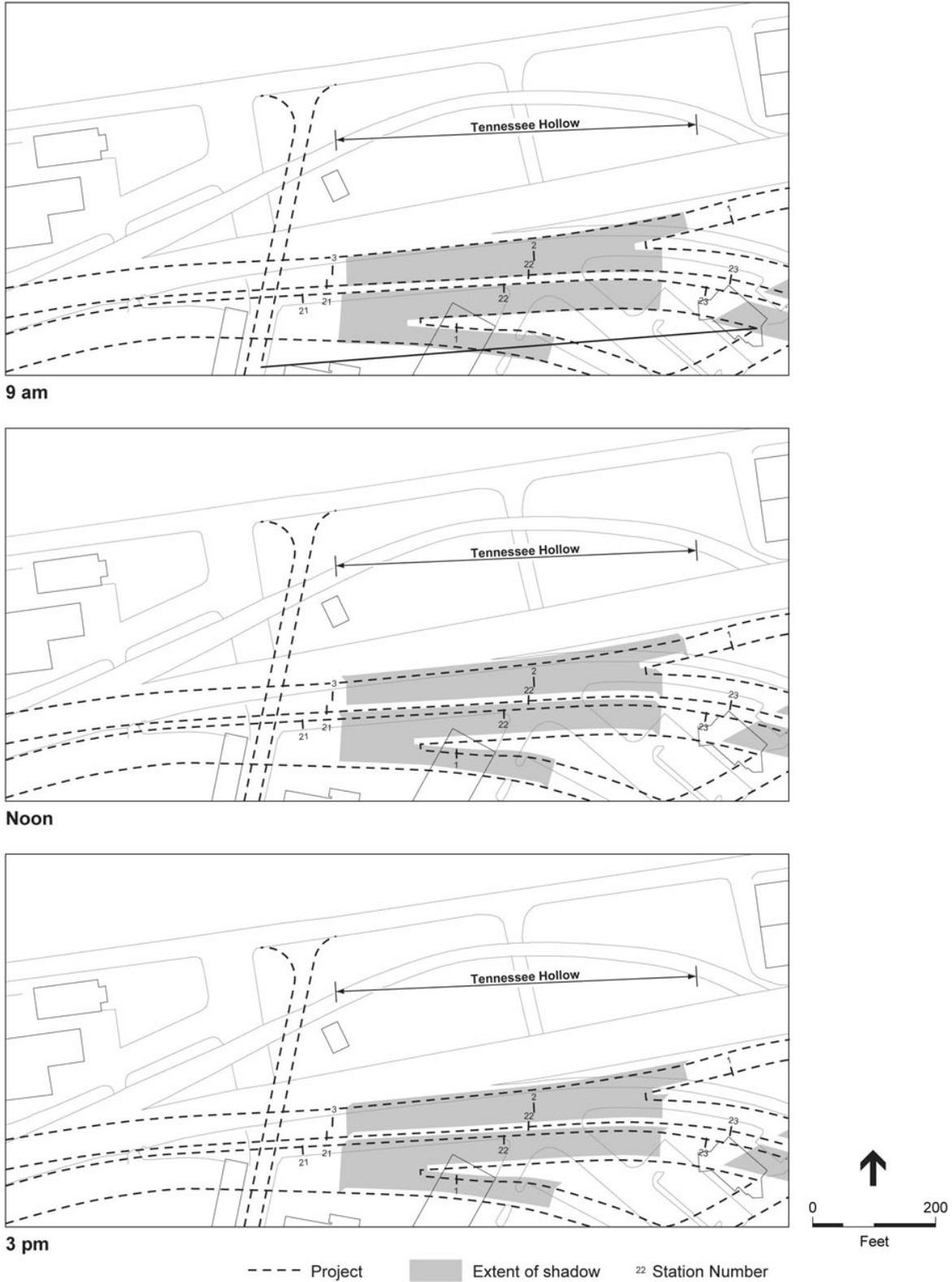
3 pm

--- Project      ■ Extent of shadow      22 Station Number



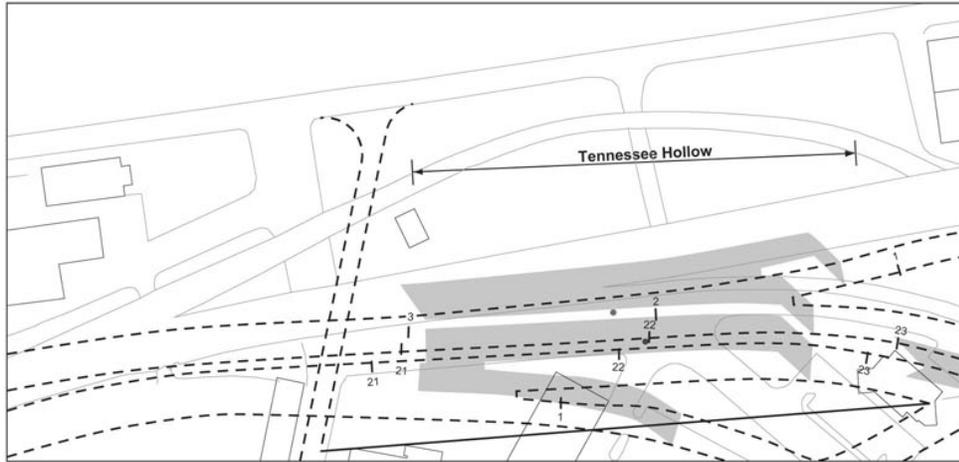
Source: Environmental Science Associates

**FIGURE B-7  
ALTERNATIVE 5: PRESIDIO PARKWAY  
SHADOW STUDY, JUNE 21**

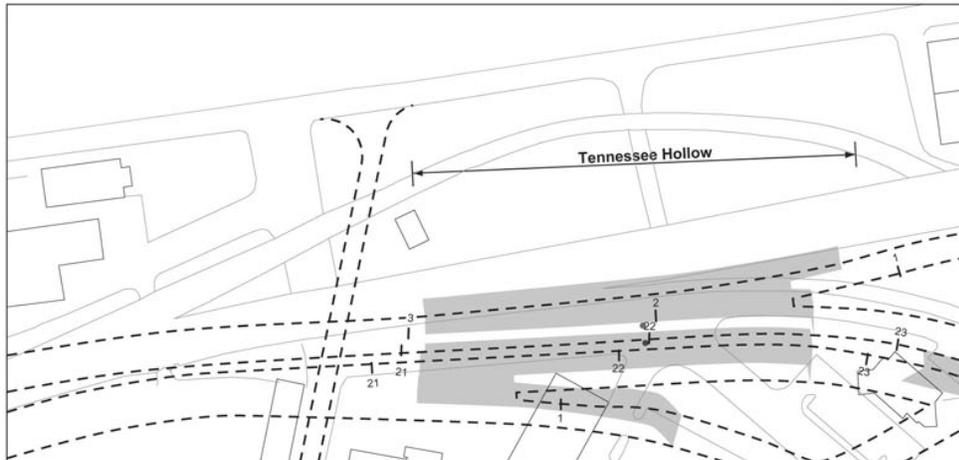


Source: Environmental Science Associates

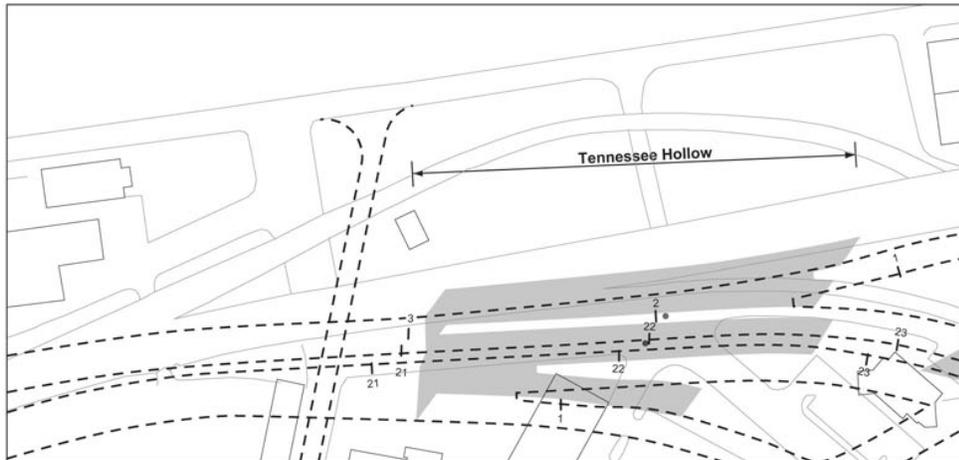
**FIGURE B-8  
ALTERNATIVE 5: PRESIDIO PARKWAY  
SHADOW STUDY, DECEMBER 21**



**9 am**

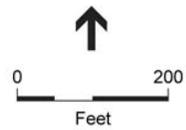


**Noon**



**3 pm**

--- Project      ■ Extent of shadow      22 Station Number



Source: Environmental Science Associates



## **APPENDIX C**

### CALIFORNIA DEPARTMENT OF TRANSPORTATION RELOCATION ASSISTANCE PROGRAM



## **California Dept. of Transportation Relocation Assistance Program**

### **RELOCATION ASSISTANCE ADVISORY SERVICES**

- The California Department of Transportation (the Department) will provide relocation advisory assistance to any person, business, farm or non-profit organization displaced as a result of the Department's acquisition of real property for public use. The Department will assist residential displacees in obtaining comparable decent, safe and sanitary replacement housing by providing current and continuing information on sales price and rental rates of available housing. Non-residential displacees will receive information on comparable properties for lease or purchase.
- Residential replacement dwellings will be in equal or better neighborhoods, at prices within the financial means of the individuals and families displaced, and reasonably accessible to their places of employment. Before any displacement occurs, displacees will be offered comparable replacement dwellings that are open to all persons regardless of race, color, religion, sex or national origin, and are consistent with the requirements of Title VIII of the Civil Rights Act of 1968. This assistance will also include supplying information concerning federal and state assisted housing programs, and any other known services being offered by public and private agencies in the area.

### **RESIDENTIAL RELOCATION PAYMENTS PROGRAM**

The Relocation Payment program will assist eligible residential occupants by paying certain costs and expenses. These costs are limited to those necessary for, or incidental to, purchasing or renting a replacement dwelling, and actual reasonable expenses incurred in moving to a new location within 80 kilometers (50 miles) of displacee's property. Any actual moving costs in excess of 80 kilometers (50 miles) are the responsibility of the displacee. The Residential Relocation Program can be summarized as follows:

#### **Moving Costs**

Any displaced person who was "lawfully" in occupancy of the acquired property regardless of the length of occupancy in the property acquired will be eligible for reimbursement of moving costs. Displacees will receive either the actual reasonable costs involved in moving themselves and personal property up to a maximum of 80 kilometers (50 miles), a moving service authorization, or a fixed payment based on a fixed moving cost schedule which is determined by the number of furnished or unfurnished rooms of the displacement dwelling.

#### **Purchase Supplement**

In addition to moving and related expenses payments, fully eligible homeowners may be entitled to payments for increased costs of purchasing replacement housing.

Homeowners who have owned and occupied their property for 180 days prior to the date of the first written offer to purchase the property, may qualify to receive a price differential payment equal to the difference between the Department's offer to purchase their property and the price of a comparable replacement dwelling, and may qualify to receive reimbursement for certain nonrecurring costs incidental to the purchase of the replacement property. An interest differential payment is also available if the interest rate for the loan on the replacement dwelling is higher than the loan rate on the displacement dwelling, subject to certain limitations on reimbursement based upon the replacement property interest rate. Also the interest differential must be based upon the "lesser of" either the loan on the displacement property or the loan on the replacement property. The maximum combination of these three supplemental payments that the owner-occupants can receive is \$22,500. If the calculated total entitlement (without the moving payments) is in excess of \$22,500, the displacee may qualify for the Last Resort Housing described below.

#### **Rental Supplement**

Tenants who have occupied the property to be acquired by the Department for 90 days or more and owner-occupants who have occupied the property 90 to 180 days prior to the date of the first written offer to purchase may qualify to receive a rental differential payment. This payment is made when the Department

determines that the cost to rent a comparable and "decent, safe and sanitary" replacement dwelling will be more than the present rent of the displacement dwelling. As an alternative, the eligible occupant may qualify for a down payment benefit designed to assist in the purchase of a replacement property and the payment of certain costs incidental to the purchase, subject to certain limitation noted below under the "Down Payment" section (see below). The maximum amount of payment to any tenant of 90 days or more and any owner-occupant of 90 to 179 days, in addition to moving expenses, will be \$5,250. If the calculated total entitlement for rental supplement exceeds \$5,250, the displacee may qualify for the Last Resort Housing Program described below.

The rental supplement of \$7,500 or less will be paid in a lump sum, unless the displacee requests that it be paid in installments. The displaced person must rent and occupy a "decent, safe and sanitary" replacement dwelling within one year from the date the Department takes legal possession of the property, or from the date the displacee vacates the Department-acquired property, whichever is later.

### **Down Payment**

Displacees eligible to receive a rental differential payment may elect to apply it to a down payment for the purchase of a comparable replacement dwelling. The down payment and incidental expenses cannot exceed the maximum payment of \$5,250, unless the Last Resort Housing Program is indicated. The one-year eligibility period in which to purchase and occupy a "decent, safe and sanitary" replacement dwelling will apply.

### **Last Resort Housing**

Federal regulations (49 CFR 24.404) contain the policy and procedure for implementing the Last Resort Housing Program on federal aid projects. In order to maintain uniformity in the program, the Department has also adopted these federal guidelines on non-federal-aid projects. Except for the amounts of payments and the methods in making them, last resort housing benefits are the same as those benefits for standard relocation as explained above. Last resort housing has been designed primarily to cover situations where available comparable replacement housing, or when their anticipated replacement housing payments, exceed the \$2,520 and \$22,500 limits of the standard relocation procedures. In certain exceptional situations, last resort housing may also be used for tenants of less than 90 days.

After the first written offer to acquire the property has been made, the Department will, within a reasonable length of time, personally contact the displacees to gather important information relating to:

- Preferences in area of relocation.
- Number of people to be displaced and the distribution of adults and children according to age and sex.
- Location of school and employment.
- Special arrangements to accommodate any handicapped member of the family.
- Financial ability to relocate into comparable replacement dwelling, which will house all members of the family decently.

The above explanation is general in nature and is not intended to be a complete explanation of relocation regulations. Any questions concerning relocation should be addressed to the Department. Any persons to be displaced will be assigned a relocation advisor who will work closely with each displacee in order to see that all payments and benefits are fully utilized, and that all regulations are observed, thereby avoiding the possibility of displacees jeopardizing or forfeiting any of their benefits or payments.

### **THE BUSINESS AND FARM RELOCATION ASSISTANCE PROGRAM**

The Business and Farm Relocation Assistance Program provides aid in locating suitable replacement property for the displacee's farm or business, including, when requested, a current list of properties offered for sale or rent. In addition, certain types of payments are available to businesses, farms, and non-profit organizations. These payments may be summarized as follows:

- Reimbursement for the actual direct loss of tangible personal property incurred as a result of moving or discontinuing the business in an amount not greater than the reasonable cost of relocating the property.

- Reimbursement up to \$1,000 of actual reasonable expenses in searching for a new business site.
- Reimbursement up to \$10,000 of actual reasonable expenses related to the reestablishment of the business at the new location
- Reimbursement of the actual reasonable cost of moving inventory, machinery, office equipment and similar business-related personal property, including dismantling, disconnecting, crating, packing, loading, insuring, transporting, unloading, unpacking, and reconnecting personal property.

Payment "in lieu" of moving expense is available to businesses which are expected to suffer a substantial loss of existing patronage as a result of the displacement, or if certain other requirements such as inability to find a suitable relocation site are met. This payment is an amount equal to the average annual net earnings for the last two taxable years prior to relocation. Such payment may not be less than \$1,000 and not more than \$20,000.

**ADDITIONAL INFORMATION**

No relocation payment received will be considered as income for the purpose of the Internal Revenue Code of 1954 or for the purposes of determining eligibility or the extent of eligibility of any person for assistance under the Social Security Act or any other federal law (except for any federal law providing low-income housing assistance).

Persons who are eligible for relocation payments and who are legally occupying the property required for the project will not be asked to move without being given at least 90 days advance notice, in writing. Occupants of any type of dwelling eligible for relocation payments will not be required to move unless at least one comparable "decent, safe and sanitary" replacement residence, open to all persons regardless of race, color, religion, sex or national origin, is available or has been made available to them by the state.

Any person, business, farm or non-profit organization, which has been refused a relocation payment by the Department, or believes that the payments are inadequate, may appeal for a hearing before a hearing officer or the Department's Relocation Assistance Appeals Board. No legal assistance is required; however, the displacee may choose to obtain legal council at his/her expense. Information about the appeal procedure is available from the Department's Relocation Advisors.

The information above is not intended to be a complete statement of all of the Department's laws and regulations. At the time of the first written offer to purchase, owner-occupants are given a more detailed explanation of the state's relocation services. Tenant occupants of properties to be acquired are contacted immediately after the first written offer to purchase, and also given a more detailed explanation of the Department's relocation programs.

**IMPORTANT NOTICE**

To avoid loss of possible benefits, no individual, family, business, farm or non-profit organization should commit to purchase or rent a replacement property without first contacting a Department of Transportation relocation advisor at:

State of California  
Department of Transportation, District # \_\_  
Address



## **APPENDIX D**

### LIST OF PRESIDIO BUILDINGS



Building #	Name <sup>1</sup>	Location <sup>2</sup>	Existing Use <sup>3</sup>	Planned Use <sup>4</sup>
2	Post Hospital	Area B	Office	Undetermined
35	Enlisted Men's Barracks	Area B	Vacant	Undetermined
36	Artillery Barracks	Area B	Office	Undetermined
40	Bachelor Officer Quarters	Area B	Housing - Group Quarters	Undetermined
41	Bachelor Officer Quarters	Area B	Housing - Group Quarters	Undetermined
50	Officers' Club	Area B	NPS Visitor Center and Dining Facility	Meeting, conference, special event center
63	Gymnasium	Area B	Recreation (Gymnasium)	Undetermined
86	Barracks	Area B	Vacant	Undetermined
87	Barracks	Area B	Vacant	Undetermined
93	Bowling Center	Area B	Recreation (Presidio Bowling Center)	Undetermined
95	Magazine	Area B	Vacant	Undetermined
96	Tennis Court	Area B	Recreation (Tennis Court)	Undetermined
97	Red Cross Building	Area B	Office	Undetermined
99	WPA Theater	Area B	Vacant	Undetermined
100	Barracks and Mess Hall	Area B	Vacant	Office
101	Barracks and Mess Hall	Area B	Vacant	Office
102	Barracks and Mess Hall	Area B	Vacant	Visitor Center
103	Barracks and Mess Hall	Area B	Office	Office
104	Barracks and Mess Hall	Area B	Vacant	Office
105	Barracks and Mess Hall	Area B	Vacant	Office
106	Band Barracks	Area B	Office	Office
107	Switching Station	Area B	Utility Infrastructure	Undetermined
108	Storage, Electrical Shop	Area B	Storage	Undetermined
113	Garage	Area B	Storage	Undetermined
116	Post Trader (Sutler)	Area B	Office	Undetermined
118	Garage	Area B	Shop	Undetermined
122	Gymnasium (Main Post Community Center)	Area B	Vacant	Mixed Use
123	Garage	Area B	Garage	Undetermined
124	Enlisted Family Quarters	Area B	Residential	Residential
125	Enlisted Family Quarters	Area B	Residential	Residential
126	Enlisted Family Quarters	Area B	Residential	Residential
127	Enlisted Family Quarters	Area B	Residential	Residential
128	Enlisted Family Quarters	Area B	Residential	Residential
129	Enlisted Family Quarters	Area B	Residential	Residential
130	Post Chapel	Area B	Office and Interfaith events	Office and Interfaith events
135	Service Club, NCO Club	Area B	Meeting, conference, special event center	Meeting, conference, special event center
150	Mortuary Chapel, National Cemetery	Area B	Cemetery	Cemetery
151	Caretakers Residence, National Cemetery	Area B	Cemetery	Cemetery
152	Restroom, National Cemetery	Area B	Cemetery	Cemetery
153	Garage, National Cemetery	Area B	Cemetery	Cemetery

<b>Building #</b>	<b>Name<sup>1</sup></b>	<b>Location<sup>2</sup></b>	<b>Existing Use<sup>3</sup></b>	<b>Planned Use<sup>4</sup></b>
154	Maintenance Garage, National Cemetery	Area B	Cemetery	Cemetery
201	Exchange Store	Area B	Trust Storage & Office	Office and Retail
204	Exchange Store (Presidio Thrift Shop)	Area B	NPS/Trust Office	Office
210	Guard House	Area B	Bank and Post Office	Bank and Post Office
218	Fire Station	Area B	Fire Station	Fire Station
220	Bakers' and Cooks' School and Barracks	Area B	Office	Office
222	Warehouse	Area B	Vacant	Office
223	Warehouse	Area B	Office	Office
225	Storehouse	Area B	Vacant	Undetermined
227	Warehouse	Area B	Storage	Retail
228	Bakery	Area B	Carpentry Shop	Retail
229	Bakery	Area B	Office	Retail
230	Warehouse	Area B	NPS/Trust Storage, Classroom and Office	Retail or Other Use
575	Lombard Gate	Area B	Decorative Structure	Decorative Structure
603	Crissy Interpretive Center	Area B	Educational	Educational
631	Ammunition Magazine	Area B	Vacant	Undetermined
632	Ammunition Magazine	Area B	Vacant	Undetermined
633	Ammunition Magazine	Area B	Vacant	Undetermined
635	Battery Blaney	Area B	Historic Structure	Historic Structure
636	Battery Sherwood	Area B	Historic Structure	Historic Structure
640	Hangar, Warehouse	Area B	Storage	Museum
643	Aircraft Hanger	Area B	Vacant/Storage	Cultural/Recreational
650	Stilwell Hall	Area B	Vacant	Lodging
651	Administration Building	Area B	Vacant	Lodging
652	Transformer Vault	Area B	Utility Infrastructure	Undetermined
654	Guard House	Area B	Vacant	Undetermined
661	Cavalry Stable	Area B	Park Police	Park Police
662	Cavalry Stable	Area B	Storage	Cultural/Educational
663	Cavalry Stable	Area B	Storage	Cultural/Educational
667	Cavalry Stable	Area B	NPS Archives	NPS Archives
668	Cavalry Stable	Area B	Vacant/Storage	Cultural/Educational
669	Animal Crematory/Post Incinerator	Area B	Vacant	Undetermined
670	Cable House	Area B	Vacant	Undetermined
680	Electrical Substation	Area B	Utility Infrastructure	Undetermined
681	Day Room	Area B	School	Undetermined
682	Enlisted Barracks and Mess Hall	Area B	School	School
683	Day Room	Area B	Vacant	Undetermined
920	Motor Repair Shop	Area B	Gymnastics School	Cultural/Recreational
926	Hanger	Area B	Vacant	Undetermined
929	Gas Pump House	Area B	Infrastructure	Undetermined
931	Armorer's Building	Area B	Infrastructure	Undetermined
933	Dope Shop and Boiler House	Area B	Infrastructure	Undetermined
934	Motor Test Building	Area B	Vacant	Undetermined

<b>Building #</b>	<b>Name<sup>1</sup></b>	<b>Location<sup>2</sup></b>	<b>Existing Use<sup>3</sup></b>	<b>Planned Use<sup>4</sup></b>
935	Aero Storehouse	Area B	Office	Undetermined
937	Hangar	Area B	Warehouse	Undetermined
951	Bachelor Officer Quarters (Scott Hall)	Area B	Vacant	Undetermined
952	Officer Family Housing (pilots)	Area B	Vacant - Residential	Residential
953	Officer Family Housing (pilots)	Area B	Vacant - Residential	Residential
954	Officer Family Housing (pilots)	Area B	Vacant - Residential	Residential
955	Officer Family Housing (pilots)	Area B	Vacant - Residential	Residential
956	Officer Family Housing (pilots)	Area B	Vacant - Residential	Residential
957	Officer Family Housing (pilots)	Area B	Vacant - Residential	Residential
958	Officer Family Housing (pilots)	Area B	Vacant - Residential	Residential
959	Officer Family Housing (pilots)	Area B	Vacant - Residential	Residential
960	Officer Family Housing (pilots)	Area B	Vacant - Residential	Residential
961	Officer Family Housing (pilots)	Area B	Vacant - Residential	Residential
962	Officer Family Housing (pilots)	Area B	Vacant - Residential	Residential
963	Officer Family Housing (pilots)	Area B	Vacant - Residential	Residential
964	Officer Family Housing (pilots)	Area B	Vacant - Residential	Residential
966	Radio Receiver Station	Area B	Vacant	Undetermined
967	Film Vault	Area B	Vacant	Undetermined
968	Garage	Area B	Vacant	Undetermined
969	Garage	Area B	Vacant	Undetermined
1000	Officer Quarters	Area B	Office	Office
1001	Officer Quarters	Area B	Office	Office
1002	Officer Quarters	Area B	Office	Office
1003	Officer Quarters	Area B	Office	Office
1004	Officer Quarters	Area B	Office	Office
1007	Barracks	Area B	Office	Office
1008	Ward	Area B	Office	Office
1009	Ward	Area B	Office	Office
1012	Ward	Area B	Office	Office
1013	Ward	Area B	Office	Office
1014	Outpatient Clinic	Area B	Office	Office
1016	Administration Building	Area B	Office	Office
1040	Power House	Area B	Vacant	Retail
1047	Laundry	Area B	Vacant	Undetermined
1050	Hospital Ward	Area B	Vacant	Undetermined
1051	Hospital Ward	Area B	Office	Undetermined
1056	Animal Hospital	Area B	Vacant	Retail
1059	Storage	Area B	Vacant	Undetermined
1060	Medical Supply Warehouse	Area B	Vacant	Undetermined
1061	Acid Storage	Area B	Vacant	Undetermined
1062	Quartermaster Shop	Area B	Storage	Undetermined
1063	Medical Supply Warehouse	Area B	Storage	Water Recycling Facility
1076	Ambulance Garage	Area B	Vacant	Undetermined
1151	Presidio YMCA Pool	Area B	Recreation (Swimming Pool)	Recreation (Swimming Pool)
1152	Presidio YMCA Gym	Area B	Recreation (Gymnasium)	Recreation (Gymnasium)
1158	Mercantile Specialty Store	Area B	Presidio Dance Theatre	Undetermined

<b>Building #</b>	<b>Name<sup>1</sup></b>	<b>Location<sup>2</sup></b>	<b>Existing Use<sup>3</sup></b>	<b>Planned Use<sup>4</sup></b>
1160	Gorgas Warehouse	Area B	Vacant	Office
1161	Gorgas Warehouse	Area B	Office - Vacant	Office
1162	Gorgas Warehouse	Area B	Office and Wellness Clinic	Office
1163	Gorgas Warehouse	Area B	Vacant	Office
1167	Gorgas Warehouse	Area B	Office - Vacant	Office
1169	Gorgas Warehouse	Area B	Office	Office
1170	Gorgas Warehouse	Area B	Vacant	Office
1182	Mason St Warehouse	Area B	Storage	Office
1183	Mason St Warehouse	Area B	Vacant	Office
1184	Mason St Warehouse	Area B	Office - Vacant	Office
1185	Mason St Warehouse	Area B	Office - S.F. Maritime Park	Office
1186	Mason St Warehouse	Area B	Vacant	Office
1187	Mason St Warehouse	Area B	Office - Exploratorium	Office
1188	Mason St Warehouse	Area B	Office	Office
1231	Blacksmith Shop	Area B	Vacant	Undetermined
1233	Storehouse	Area B	Vacant	Undetermined
1243	Quartermaster Warehouse	Area B	S.F. Conservation Corps	Undetermined
1246	Garage	Area B	Garage (Vacant)	Undetermined
1247	Garage	Area B	Garage (Occupied)	Undetermined
1248	Garage	Area B	Garage (Occupied)	Undetermined
1250	Garage	Area B	Garage	Undetermined
1261	Enlisted Family Housing	Area B	Residential	Residential
1262	Enlisted Family Housing	Area B	Residential (Vacant)	Residential
1263	Enlisted Family Housing	Area B	Residential	Residential
1265	Enlisted Family Housing	Area B	Residential	Residential
1266	Enlisted Family Housing	Area B	Residential	Residential
1268	Enlisted Family Housing	Area B	Residential	Residential
1270	Enlisted Family Housing	Area B	Residential	Residential
1272	Enlisted Family Housing	Area B	Residential	Residential
1273	Enlisted Family Housing	Area B	Residential	Residential
1274	Enlisted Family Housing	Area B	Residential	Residential
1275	Enlisted Family Housing	Area B	Residential	Residential
1276	Enlisted Family Housing	Area B	Residential	Residential
1277	Enlisted Family Housing	Area B	Residential	Residential
1285	Garage, Battery Howe-Wagner	Area B	Storage	Undetermined
1287	Battery Howe-Wagner	Area B	Historic Structure	Historic Structure
1289	Enlisted Family Housing	Area B	Residential (Vacant)	Residential
1290	Enlisted Family Housing	Area B	Residential	Residential
1291	Enlisted Family Housing	Area B	Residential	Residential
1293	Enlisted Family Housing	Area B	Residential	Residential
1294	Enlisted Family Housing	Area B	Residential	Residential
1295	Enlisted Family Housing	Area B	Residential	Residential
1297	Enlisted Family Housing	Area B	Residential	Residential
1298	Enlisted Family Housing	Area B	Residential	Residential
1299	NCO Open Mess Annex, Community Center	Area B	Log Cabin Conference Center	Undetermined
F47	Battery Baldwin	Area B	Historic Structure	Historic Structure
F47	Battery Slaughter	Area B	Historic Structure	Historic Structure

<b>Building #</b>	<b>Name<sup>1</sup></b>	<b>Location<sup>2</sup></b>	<b>Existing Use<sup>3</sup></b>	<b>Planned Use<sup>4</sup></b>
2004	Anza Street	Area B	Street	Street
2005	Appleton Street	Area B	Street	Street
2006	Arguello Street	Area B	Street	Street
2012	Battery Blaney Road	Area B	Street	Street
2020	Battery Wagner Road	Area B	Street	Street
2024	Birmingham Road	Area B	Street	Street
2027	Bliss Road	Area B	Street	Street
2040	Cowles Road	Area B	Street	Street
2042	Crissy Field Avenue	Area B	Street	Street
2049	Edie Road	Area B	Street	Street
2054	Fisher Loop	Area B	Street	Street
2058	Funston Avenue	Area B	Street	Street
2059	General Kennedy Avenue	Area B	Street	Street
2063	Girard Road	Area B	Street	Street
2064	Gorgas Avenue	Area B	Street	Street
2065	Graham Street	Area B	Street	Street
2068	Halleck Street	Area B	Street	Street
2076	Hoffman Street	Area B	Street	Street
2080	Incinerator Road	Area B	Street	Street
2081	Infantry Terrace	Area B	Street	Street
2087	Keyes Avenue	Area B	Street	Street
2094	Lincoln Boulevard	Area B	Street	Street
2096	Lombard Street	Area B	Street	Street
2097	Long Avenue	Area B	Street	Street
2107	McDowell Avenue	Area B	Street	Street
2114	Mesa Street	Area B	Street	Street
2119	Montgomery Street	Area B	Street	Street
2121	Moraga Avenue	Area B	Street	Street
2130	Old Mason Street	Area B	Street	Street
2131	Ord Street	Area B	Street	Street
2132	O'Reilly Avenue	Area B	Street	Street
2134	Park Boulevard	Area B	Street	Street
2135	Patten Road	Area B	Street	Street
2151	Riley Avenue	Area B	Street	Street
2154	Ruckman Avenue	Area B	Street	Street
2159	Shofield Road	Area B	Street	Street
2162	Sheridan Avenue	Area B	Street	Street
2174	Storey Avenue	Area B	Street	Street
2176	Taylor Road	Area B	Street	Street
2179	Thornburg Road	Area B	Street	Street
2224	Portal Drive, National Cemetery	Area B	Street	Street
2225	Main Drive and Officers' Circle, National Cemetery	Area B	Street	Street
2226	North Drive, National Cemetery	Area B	Street	Street
2227	First Drive, National Cemetery	Area B	Street	Street
2228	South Drive, National Cemetery	Area B	Street	Street
2229	First Drive West, National Cemetery	Area B	Street	Street

<b>Building #</b>	<b>Name<sup>1</sup></b>	<b>Location<sup>2</sup></b>	<b>Existing Use<sup>3</sup></b>	<b>Planned Use<sup>4</sup></b>
2230	Second Drive West, National Cemetery	Area B	Street	Street
3008	Stone Retaining Wall	Area B	Built Feature	Built Feature
3009	Concrete Retaining Wall	Area B	Built Feature	Built Feature
3010	Stone Retaining Wall	Area B	Built Feature	Built Feature
3011	Concrete Retaining Wall	Area B	Built Feature	Built Feature
3012	Concrete Retaining Wall	Area B	Built Feature	Built Feature
3047	Spanish Bronze Cannon	Area B	Built Feature	Built Feature
3048	Spanish Bronze Cannon	Area B	Built Feature	Built Feature
3053	1876 Centennial Tree	Area B	Tree	Tree
3201	Boundary Wall, National Cemetery	Area B	Built Feature	Built Feature
3202	Cast-iron Gate, National Cemetery	Area B	Built Feature	Built Feature
3203	Main Entrance, National Cemetery	Area B	Built Feature	Built Feature
3204	Stone Curb	Area B	Built Feature	Built Feature
3205	Stone Retaining Wall	Area B	Built Feature	Built Feature
3206	Stone Retaining Wall and Curb	Area B	Built Feature	Built Feature
3207	Concrete Retaining Wall	Area B	Built Feature	Built Feature
3208	Stone Retaining Wall	Area B	Built Feature	Built Feature
3209	Stone Curb/Retaining Wall	Area B	Built Feature	Built Feature
3210	Stone Retaining Wall	Area B	Built Feature	Built Feature
3212	Stone Retaining Wall Complex	Area B	Built Feature	Built Feature
3213	Stone Curb	Area B	Built Feature	Built Feature
3214	Stone Curb	Area B	Built Feature	Built Feature
3215	Stone Retaining Walls	Area B	Built Feature	Built Feature
3628	Concrete Retaining Wall	Area B	Built Feature	Built Feature
3701	Concrete and Stone Retaining Wall	Area B	Built Feature	Built Feature
3702	Stone Gate Post with Ring	Area B	Built Feature	Built Feature
3709	Concrete Seaplane Ramp	Area B	Built Feature	Built Feature
3730	Wm. A Richardson Memorial	Area B	Built Feature	Built Feature
34	Presidio Trust Offices	Area B	Office	Office
37	Administration Building	Area B	Office	Undetermined
85	Day Room	Area B	Vacant	Undetermined
205	Sewage Pump House	Area B	Sewer Lift Station	Undetermined
211	Former Burger King	Area B	Vacant	Restaurant
215	Bus Shelter	Area B	Vacant	Transit Center and Café
224	Flammable Storage	Area B	Shop/Storage	Undetermined
231	Exchange Gas Service Station	Area B	Office and Warehouse for High Voltage	Undetermined
385	Post Exchange	Area B	Vacant	Undetermined
605	Post Exchange	Area B	Vacant	Undetermined
606	Post Exchange	Area B	Vacant	Undetermined
610	Commissary	Area B	Retail	Museum
638	Oil Storage	Area B	Warehouse	Undetermined
641	Latrine	Area B	Warehouse	Undetermined
644	Unit Motor Pool	Area B	Warehouse	Undetermined

Building #	Name <sup>1</sup>	Location <sup>2</sup>	Existing Use <sup>3</sup>	Planned Use <sup>4</sup>
645	Sewer Pump Station	Area B	Sewer Lift Station	Undetermined
649	Army Reserves Building	Area B	Warehouse	Lodging
653	Commissary	Area B	Retail	Museum
666	Dog Kennel	Area B	Vacant	Undetermined
922	Transformer Vault	Area B	Utility Infrastructure	Undetermined
923	Transformer Vault	Area B	Utility Infrastructure	Undetermined
924	Vehicle Repair Shed	Area B	Special Events Use	Undetermined
930	Shed and Steam Rack (Butler)	Area B	Infrastructure	Undetermined
942	Storage Shed	Area B	Vacant	Undetermined
1027	Garage and Storage	Area B	Park Police Storage	Undetermined
1028	Nurse's Quarters	Area B	Housing	Residential
1029	New Barracks	Area B	Swords to Plowshares	Residential
1030	New Barracks	Area B	Swords to Plowshares	Residential
1211	Officers' Quarters	Area B	Residential	Residential
1234	Officers' Quarters	Area B	Residential	Residential
1235	Officers' Quarters	Area B	Residential	Residential
1236	Officers' Quarters	Area B	Residential	Residential
1238	Officers' Quarters	Area B	Residential	Residential
1251	Officers' Quarters	Area B	Residential	Residential
1253	Officers' Quarters	Area B	Residential	Residential
1254	Officers' Quarters	Area B	Residential	Residential
1255	Officers' Quarters	Area B	Residential	Residential
1256	Officers' Quarters	Area B	Residential	Residential
1257	Officers' Quarters	Area B	Residential	Residential
1258	Officers' Quarters	Area B	Residential	Residential
1259	Officers' Quarters	Area B	Residential	Residential
1278	Officers' Quarters	Area B	Residential	Residential
1279	Officers' Quarters	Area B	Residential	Residential
1280	Officers' Quarters	Area B	Residential	Residential
1282	Officers' Quarters	Area B	Residential	Residential
	Letterman Digital Arts Center	Area B	Under Construction	Office, Educational
983	Warehouse	Area A	Dining Facility	Undetermined
984	Torpedo Wharf	Area A	Fishing Pier	Undetermined
985	Mine Loading House	Area A	Garage	Undetermined
986	Mine Loading House	Area A	Garage	Undetermined
988	Guard Station	Area A	Office	Undetermined
989	Plumbing Shop Building/Office	Area A	Office - Fort Point Staff	Undetermined
990	Flammable Storage	Area A	Storage Shed	Undetermined
1901	Officer-in-charge Quarters, USCG	Area A	Office - State of the World Forum	Undetermined
1902	Boathouse, USCG	Area A	Garage	Undetermined
1903	Boathouse and Quarters, USCG	Area A	Office - Gulf of Farallones National Marine Sanctuary	Undetermined
1905	Buoy Shack with Latrine, USCG	Area A	Storage	Undetermined
1906	Tide Gauge House, USCG	Area A	Storage	Undetermined
1907	Shop/Garage, USCG	Area A	Garage	Undetermined
987	Latrine	Area A	Restroom	Undetermined

Building #	Name <sup>1</sup>	Location <sup>2</sup>	Existing Use <sup>3</sup>	Planned Use <sup>4</sup>
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Notes:

- 1 - List of buildings and features was generated from:
  - \* Presidio Trust Management Plan (May 2002)
  - \* Doyle Drive Project Draft Finding of Effect Document (12/16/02),
  - \* Doyle Drive Project Historic Architectural Survey Report (8/29/02)
  - \* Draft Presidio Trails and Bikeways Master Plan & Environmental Assessment (November 2002)
- 2 - Area A - National Park Service is the land manager  
Area B - Presidio Trust is the land manager
- 3 - Information on buildings and features existing and future use provided by Presidio Trust staff (5/20/03 and 9/16/02) and National Park Service Staff (7/803)
- 4 - Planned use is based on the Presidio Trust Management Plan (May 2002) proposed use