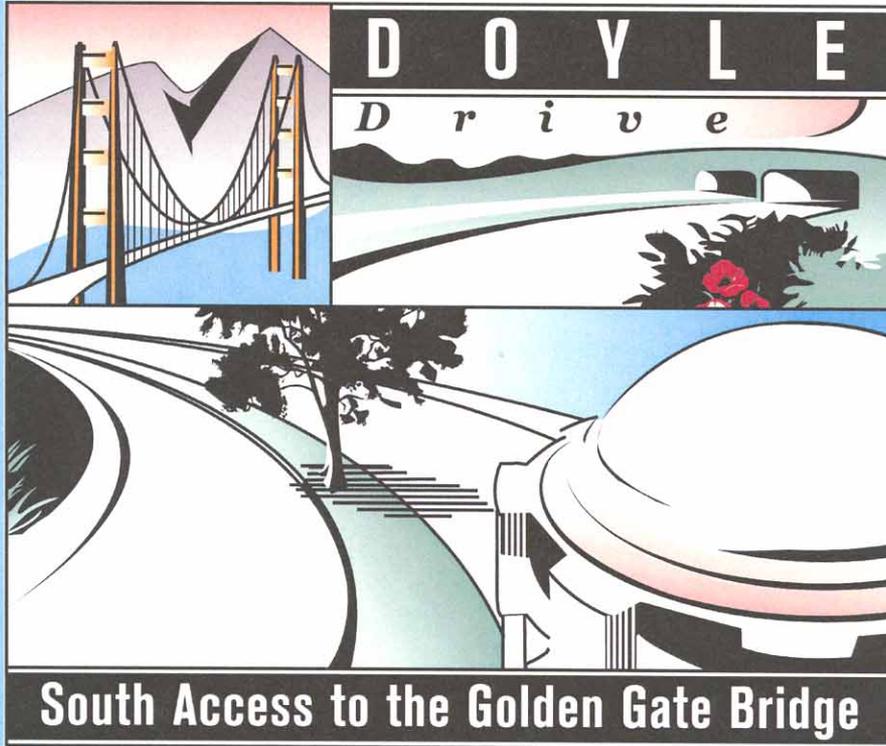


SFCTA Contract Number 99/00-7



FINAL PARKING IMPACT ANALYSIS

September 2004

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SECTION 1: INTRODUCTION

This memorandum provides an overview of the alternatives that are being considered for further detailed analysis within the South Access to the Golden Gate Bridge - Doyle Drive Project Draft Environmental Impact Statement/Draft Environmental Impact Report (DEIS/DEIR).

1.1 OVERVIEW

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 US 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 (NHLD) since 1962 with the Doyle Drive roadway determined to be a contributing element to that landmark.

Doyle Drive, the southern approach of US 101 to the Golden Gate Bridge, is 2.4 kilometers (1.5 miles) long with six traffic lanes. 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.

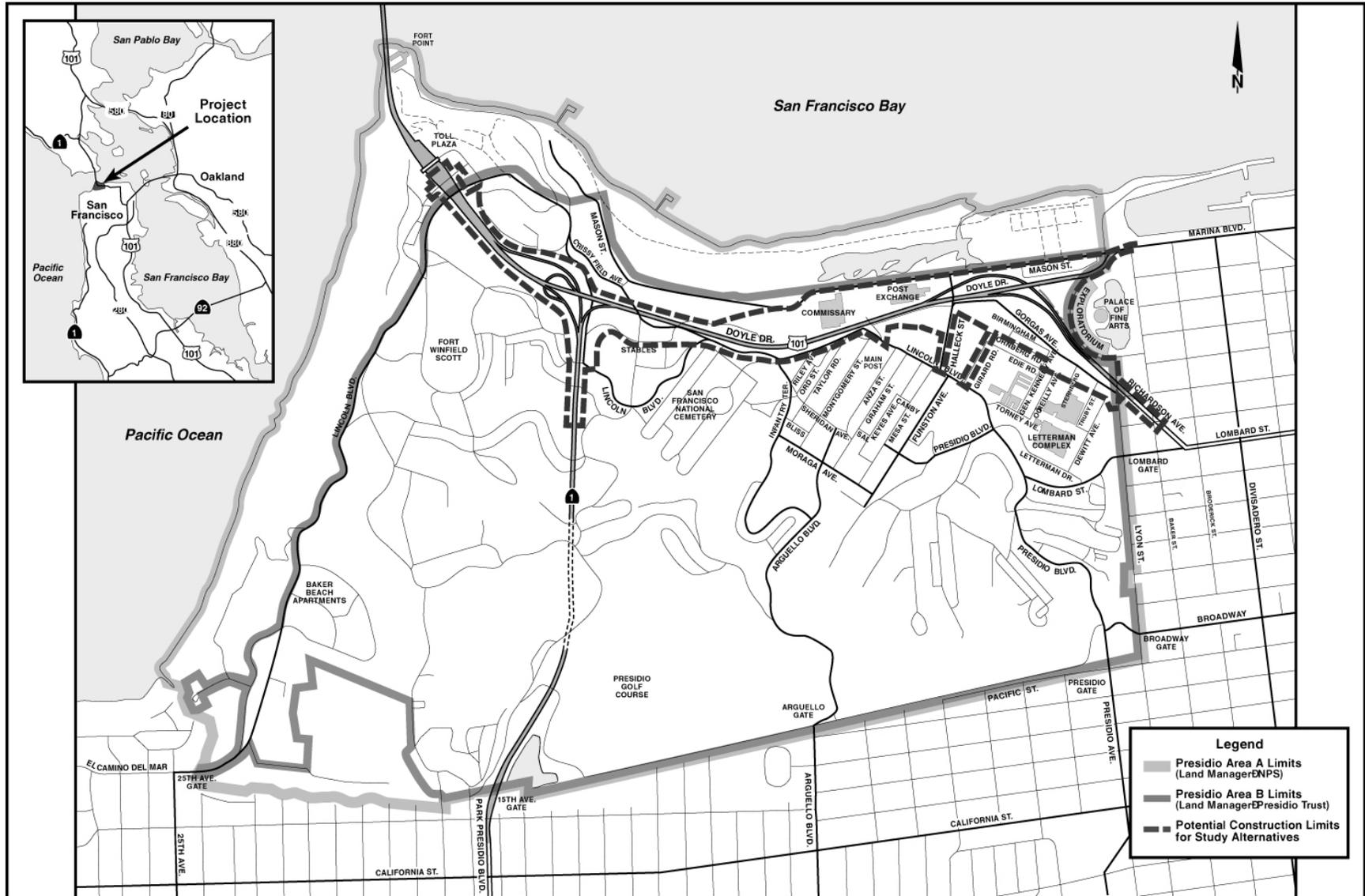
Doyle Drive is nearly 70 years old and it is approaching the end of its useful life, although regular maintenance, seismic retrofit, and partial rehabilitation activities are keeping the structure safe in the short term. However, further structural degradation caused by age and the effects of heavy traffic 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).

1.2 PROJECT PURPOSE

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.

**FIGURE 1-1
PROJECT LOCATION**



1.3 ALTERNATIVES DEVELOPMENT

The build alternatives for the Doyle Drive Project were developed with input from public scoping and reflected the parkway concept that evolved from previous studies. Through the screening analysis, six alternatives were selected for consideration in the Administrative DEIS/DEIR: Alternative 1, No-Build; Alternative 2, Replace and Widen; Alternatives 3a and 3b, Long Tunnels; and Alternatives 4a and 4b, Short Tunnels.

Subsequent to the Administrative DEIS/DEIR in 2002, a fifth alternative, the Presidio Parkway, was added to the list of alternatives for more detailed study. In comparison to the tunnel alternatives it was determined that Alternative 5, Presidio Parkway, would provide all the benefits and functions of Alternatives 3a, 3b, 4a, and 4b with less cost, construction duration and environmental impact. Hence, in November 2003 the four tunnel alternatives were recommended to be removed from further consideration and analysis in the DEIS/DEIR.

At a public meeting held in February 2004, the public agreed with the decision to drop Alternatives 3a, 3b, 4a, and 4b and retain Alternative 1, No-Build, Alternative 2, Replace and Widen, and Alternative 5, Presidio Parkway for consideration in the DEIS/DEIR.

1.3.1 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.

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. The No-Build Alternative provides the baseline for existing environmental conditions and future travel conditions against which all other alternatives are compared.

Doyle Drive would remain in its current configuration, with six traffic lanes ranging in width from 2.9 to 3.0 meters (9.5 to 10 feet) and an overall facility width of 20.4 meters (67 feet) (see Figure 1-2). There are no fixed median barriers or shoulders. The lane configuration is changed by manually moving plastic pylons to increase the number of lanes in the peak direction of traffic. The facility passes through the Presidio on a high steel truss viaduct and a low elevated concrete viaduct with lengths of 463 meters (1,519 feet) and 1,137 meters (3,730 feet), respectively. This alternative does not improve the seismic, structural, or traffic safety of the roadway.

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 will be provided by a slip ramp from Richardson Avenue to Gorgas Avenue, which is currently under construction.

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). 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). Both options would include continuous outside shoulders along the facility. 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 to the mainline detour facility would be located near the Post Exchange (PX) building.

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. 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 have an overall width of up to 45 meters (148 feet), and would incorporate wide landscaped medians and continuous shoulders. 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) high-viaduct would be constructed between the Park Presidio interchange and the San Francisco National Cemetery. 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. 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 at the eastern end of the project corridor between the Mason Street Warehouses, Gorgas Street Warehouses and Palace of Fine Arts. 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.

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:

Option 1: Loop Ramp - Replace the existing ramp with a loop ramp to the left to reduce construction close to the Calvary Stables and provide standard entrance and exit ramp geometry.

Option 2: Hook Ramp - Rebuild the ramp with a similar configuration as the existing 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 – Direct access to the Presidio and Marina Boulevard in both directions is provided by the access ramps from Doyle Drive connecting to a grade-separated interchange at 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 – The Circle Drive Option provides direct access to the Presidio and Marina Boulevard for eastbound traffic by access ramps connecting to a grade-separated interchange of Girard Road. Westbound traffic from Richardson Avenue would access the Presidio and Palace Drive through a jug handle intersection with Gorgas Avenue.

FIGURE 1-2
ALTERNATIVE 1: NO-BUILD

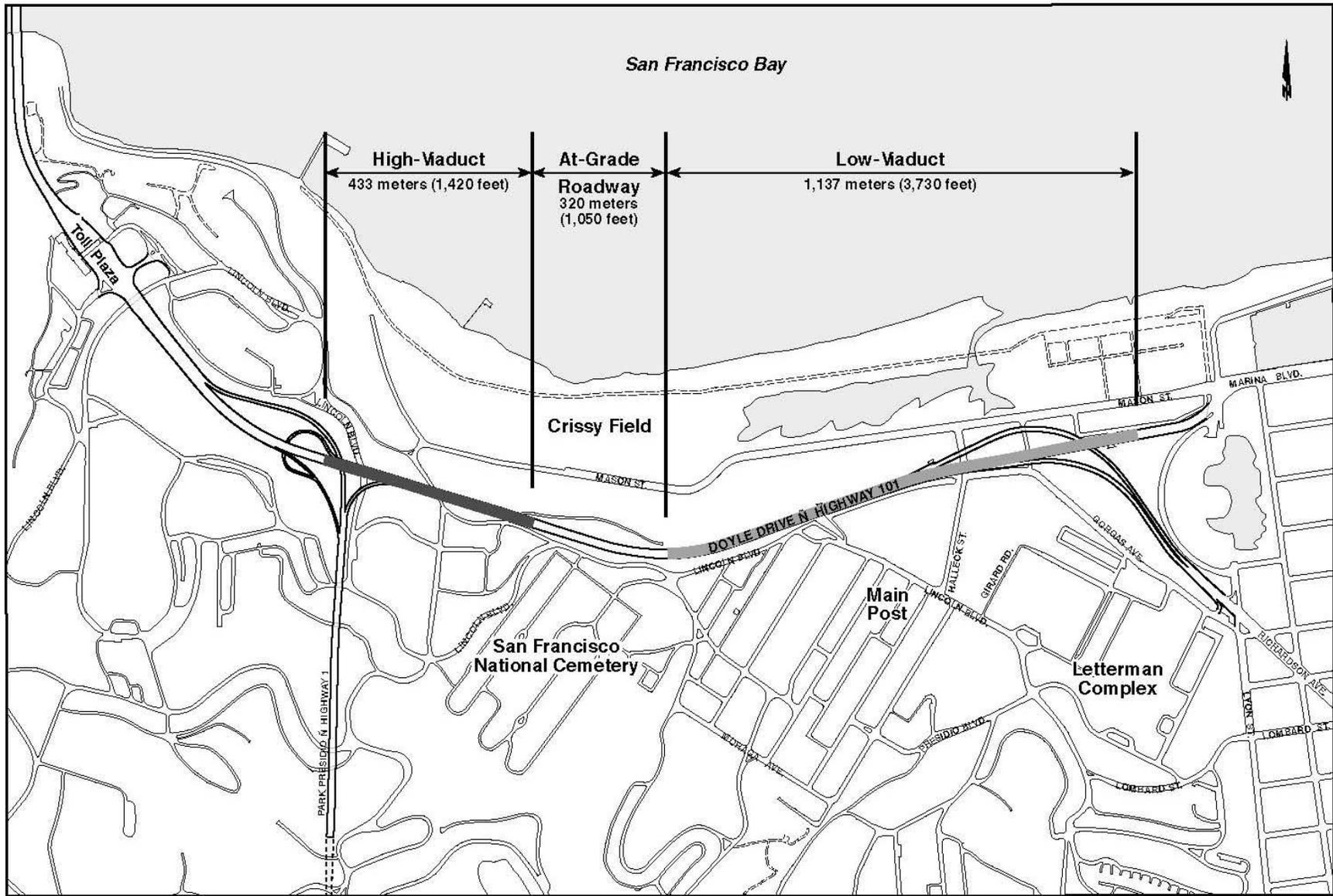


FIGURE 1-3
ALTERNATIVE 2: REPLACE AND WIDEN

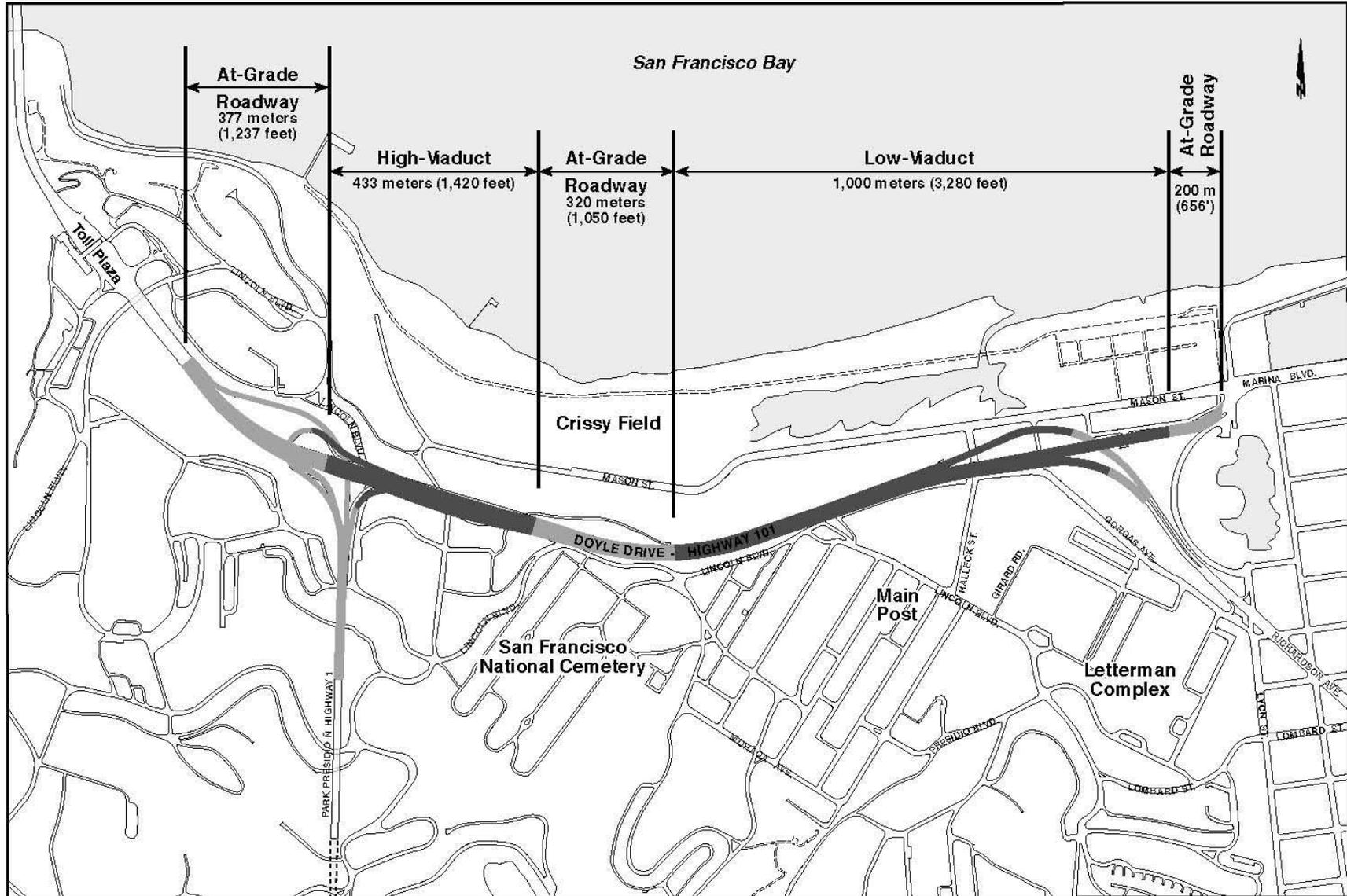
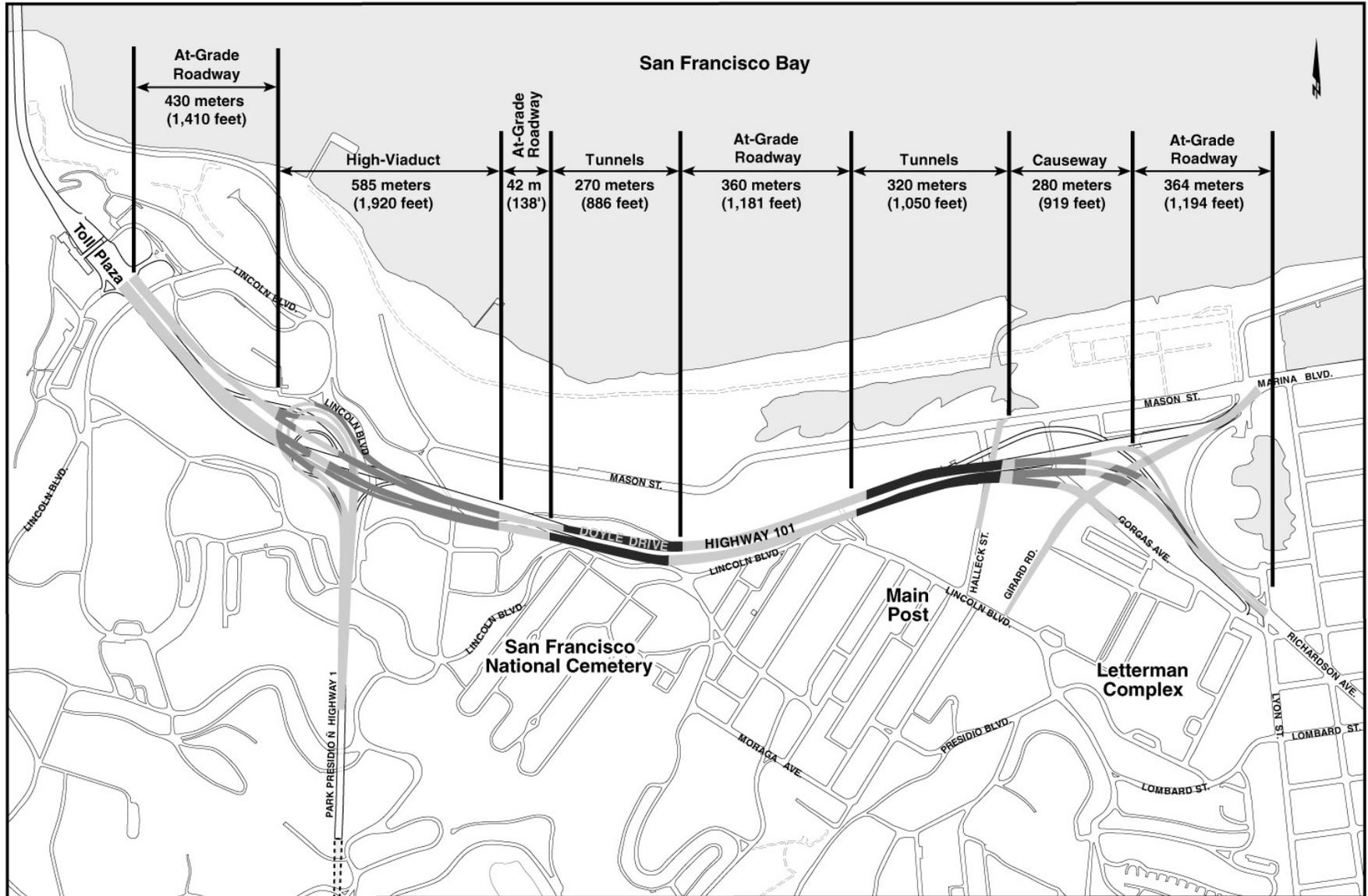


FIGURE 1-4
ALTERNATIVE 5: PRESIDIO PARKWAY



SECTION 2: METHODOLOGY

This section describes the methodology for conducting the Parking Impact Analysis for the Doyle Drive Project. Existing parking supply and demand were determined in order to establish a baseline scenario for those areas where parking spaces could be lost due to construction and operation of the Doyle Drive Project alternatives. Future supply and demand were estimated for each of the project alternatives (permanent) as well as during the short-term construction period (temporary). Based on the number of spaces removed, potential temporary and permanent impacts to the surrounding land uses were assessed. The parking impacts due to the project alternatives represent any parking deficiencies beyond those identified under the No-Build conditions.

The Parking Impact Analysis was completed for three scenarios: existing conditions, construction impacts scenario (temporary impacts), and the Doyle Drive project scenario (permanent impacts). The existing conditions scenario analyzes existing average weekday parking demand and compares it to the parking supply that is currently available to the general public. Inventory of parking spaces available was based on information provided by the Presidio Trust and additional inventory data collected by Parsons Brinckerhoff (PB) during field investigations. The construction impacts scenario was assumed to take place in year 2010 and would reflect when construction activities for Doyle Drive would have the greatest effect on the parking supply. These impacts would be temporary. The Doyle Drive Project scenario was assumed to occur in year 2030 and would reflect conditions when the Doyle Drive Project would be in operation. These impacts would be permanent. The parking supply estimates for both 2010 and 2030 conditions take into account certain parking areas that would be relocated or modified by the project, either temporarily or permanently. A rate of 350 square feet per space of unmarked pavement area, consistent with industry standards, was used to estimate parking supply for these areas. Due to fluctuations in land use and parking area conditions, existing parking demand was calculated using land use assumptions provided by the Presidio Trust, instead of observations of parking demand in Presidio Lots.

The study area for this analysis is based on the location of parking areas that could be affected due to construction activities or the actual Doyle Drive Project. Potential project-related impacts could be due to the construction of new facilities such as the detour facilities or space needed for construction activities. The construction period would be no more than five years with many activities in localized areas taking, on average, two years to complete. Most of the study area is concentrated on either side of Doyle Drive at the east end of the Presidio. Additional areas near the Park Presidio interchange were also evaluated. The study area is shown in Figure 2-1.

The analysis also investigates and reviews potential alternative parking facilities and mitigations, as a result of parking spaces eliminated (temporary and permanent) by the Doyle Drive Project. The parking areas recommended for mitigation are within walking distance, 400 meters (1/4 mile) or less, of the buildings affected by the loss of parking. Additional parking for some uses, including retail, medical and the Swords to Plowshares buildings (Buildings 1029 and 1030) were evaluated within a smaller area (200 meters, 1/8 mile). Potential mitigations are proposed for both the temporary and permanent phases of the project.

Due to the dynamic nature of the Presidio land use, quantifying the available parking supply and expected parking demand is a speculative exercise. Changes and variations to current land uses and expectations may occur that could have noticeable impacts on this parking assessment. Unfortunately, these changes are unknown and it has been proposed that the Parking Impact Analysis be updated on a regular basis to include updated uses and modified proposals for better assessment and more effective use of the Presidio parking facilities.

**FIGURE 2-1
PARKING STUDY AREA**



SECTION 3: EXISTING CONDITIONS

3.1 EXISTING PARKING SUPPLY

An inventory of the number of existing parking spaces available at the identified parking areas or parking lots was done in September 2003 in order to establish the base case parking supply. Table 3-1 summarizes this parking inventory, and Figures 3-1 and 3-2 depict the existing parking locations in the study area. Because many parking areas within the Presidio are in a transitional state (that is, they are currently being used for activities related to the Letterman project or are closed due to security concerns), the Parking Impact Analysis evaluates only parking areas that are currently available to the general public. Overall, there are approximately 1,723 parking spaces available to the general public in the study area. A discussion of the parking supply within the study area is provided below, grouped generally according to the planning areas defined in the Presidio Trust Management Plan (PTMP).¹ Figure 3-3 shows the boundaries for the planning areas that were used in this analysis to analyze parking supply and demand.

Crissy Field – Mason Warehouses

Buildings 1182, 1183, 1184, 1185, 1186, 1187, and 1188 are referred to as the Mason Street warehouses. This area has a total parking supply of approximately 165 spaces. There are 26 spaces south and east of Building 1188. There are also approximately 13 spaces south of Buildings 1184, 1183 and 1182, consisting of about nine spaces along the south side of Lundeen Street (a one-way, westbound street) and four spaces along the fence on the west side of Crook Street at Lundeen Street. On the south side of Mason Street, adjacent to Buildings 1185, 1186, 1187 and 1188, there are 36 on-street parking spaces. There is also an unmarked parking area located between Marshall Street and Buildings 1184 and 1185. The Presidio Trust estimates that this area could accommodate 90 parking spaces.

Crissy Field – Post Exchange/Commissary

The total parking supply in the Crissy Field – Post Exchange (PX)/Commissary area is approximately 695 spaces. The parking supply includes a 443-space marked lot between Buildings 610 and 653 and Buildings 605 and 606. In addition, there are eight marked spaces south of Building 605, six street parking spaces south of Building 603, and a 380-space unmarked lot west of Building 610. The unmarked lot includes the area between Buildings 640 and 610 as well as the area behind the Commissary. For purposes of this report, it was assumed that only 130 spaces would be available in this lot to meet demand in the study area. The remaining spaces were assumed to be used to meet the demand of Buildings 640, 643, 644, 649, 650 and 651, outside of the study area.

The 108-space lot between Marshall and Halleck Street is fenced off to the general public and is currently used for construction staging and parking for construction workers. Although the area is not currently open to the public, it may be open to the public when the Letterman Digital Arts Center opens at the end of 2005. Therefore, this area is viewed as a temporary loss of parking spaces and was included in the estimate of available parking for all scenarios.

West of Halleck Street, under Doyle Drive, the Presidio Trust estimated that this unmarked parking area could accommodate 144 parking spaces. However, this area is currently fenced off for security reasons and not accessible for parking, so it was not included in the existing supply.

¹ Presidio Trust Management Plan, May 2002, Presidio Trust, Chapter 3 – Planning Districts: Concepts & Guidelines.

FIGURE 3-1
AFFECTED PARKING LOCATIONS – NORTHEAST PRESIDIO PARK AREA

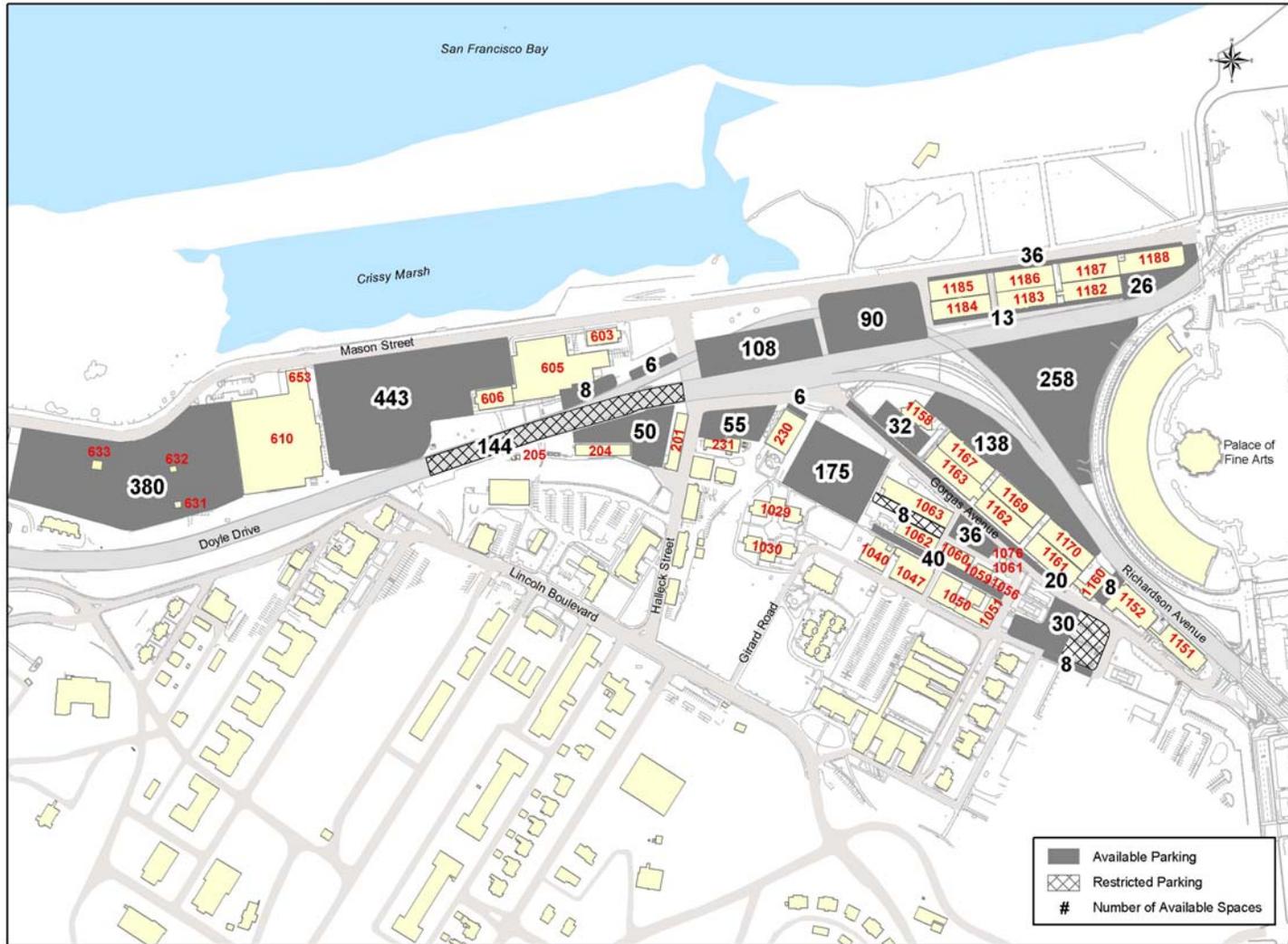
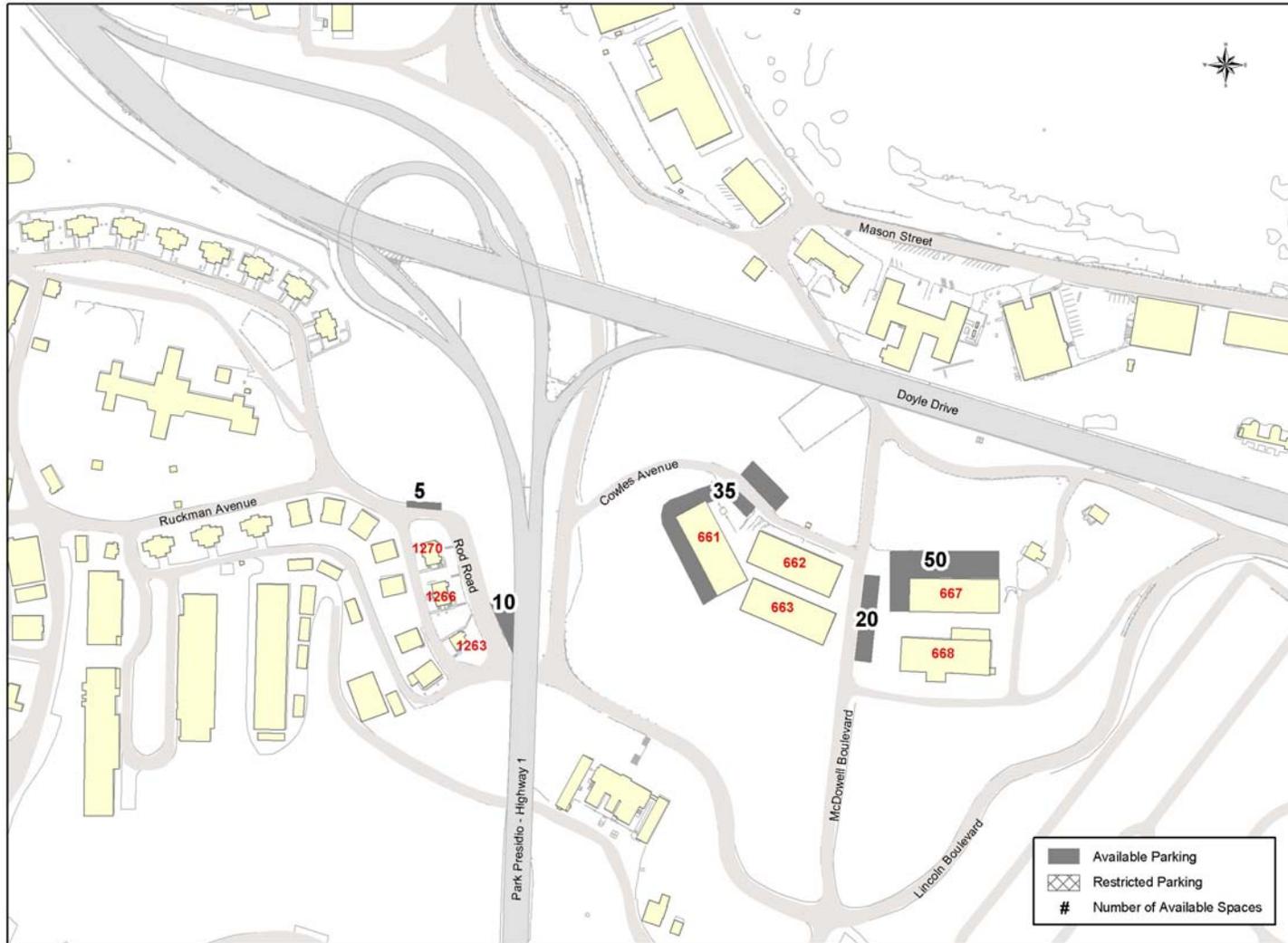


FIGURE 3-2
AFFECTED PARKING LOCATIONS – PARK PRESIDIO INTERCHANGE AREA



Letterman – Gorgas Warehouses

This area includes the Gorgas Warehouses and the Presidio YMCA Pool and Gym, located along Gorgas Avenue. It has a total parking supply of approximately 198 spaces. There is a 138-space marked lot behind the warehouses, as well as an 8-space marked lot east of Building 1160 and on-street parking for 20 vehicles along the east side of Gorgas Avenue. Although it is not currently needed, there is also a 32-space marked parking area south of Building 1158. The parking areas located south of Building 1160 are currently not available for public access due to Letterman construction.

Letterman – Thornburg Area

The total parking supply in the Thornburg area is approximately 281 spaces. There are an estimated 40 on-street parking spaces on Thornburg Road. The parking spaces are presently used primarily by consultants for the Letterman Digital Arts Center (LDA) but are available to the general public. East of Building 1063 and south of Gorgas Avenue, there are currently 36 parking spaces.

The parking lot located northeast of Building 1029 provides parking for Buildings 1029 and 1030 (Swords to Plowshares) and the Gorgas Warehouses. It has 175 parking spaces.

The Birmingham area between Buildings 1062 and 1063 is currently fenced off. If the space becomes available, there could be 8 spaces south of Building 1063. However, because this space is not currently available to the general public, it was not included in the existing parking supply. Although it is not anticipated that Building 1062 will be rented in the near future, it is anticipated that Building 1063 will house a water treatment plant in 2004.

North Halleck Area

The North Halleck Area includes a number of parking areas, with a total of approximately 111 spaces. There is a 55-space parking lot west of Building 230, a 50-space parking lot west of Building 201, six on-street spaces north of Building 230.

Fort Scott – Rod Road

In the Fort Scott – Rod Road area, there is a total of approximately 15 spaces, including five marked on-street spaces along Rod Road near Storey Avenue and a 10-space lot near Lincoln Boulevard.

Palace of Fine Arts

A parking lot with 258 marked spaces is located west of the Exploratorium and the Palace of Fine Arts. This lot is located near the Mason Warehouses and Gorgas Warehouses.

**TABLE 3-1
PARKING AREAS POTENTIALLY AFFECTED BY THE DOYLE DRIVE PROJECT**

Area	Parking Location	Spaces
Crissy Field – Mason Warehouses	South and East of Building 1188	26
Crissy Field – Mason Warehouses	South of Buildings 1184, 1183, 1182	13
Crissy Field – Mason Warehouses	Street parking along south side of Mason Street adjacent warehouses	36
Crissy Field – Mason Warehouses	Area between mainline Doyle Viaduct and Mason Street	90
	SUBTOTAL	165

Area	Parking Location	Spaces
Crissy Field – PX/Commissary	Post Exchange/Commissary	443
Crissy Field – PX/Commissary	South of Building 605	8
Crissy Field – PX/Commissary	Street parking south of Building 603	6
Crissy Field – PX/Commissary	West of Building 610	130 ^a
Crissy Field – PX/Commissary	Area between Halleck Street and Marshall Street	108 ^b
Crissy Field – PX/Commissary	Under Doyle Drive (west of Halleck)	^c
	SUBTOTAL	695
Letterman – Gorgas Warehouses	Behind Gorgas Warehouses	138
Letterman – Gorgas Warehouses	Street parking along east side of Gorgas Avenue	20
Letterman – Gorgas Warehouses	South of Building 1160	^c
Letterman – Gorgas Warehouses	South of Building 1063	^c
Letterman – Gorgas Warehouses	South of Building 1158	32
Letterman – Gorgas Warehouses	East of Building 1160	8
	SUBTOTAL	198
Letterman – Thornburg Area	Northeast of Building 1029	175
Letterman – Thornburg Area	East of Building 1063	36
Letterman – Thornburg Area	Thornburg Road	40
Letterman – Thornburg Area	East of Building 1051	30 ^d
	SUBTOTAL	281
North Halleck Area	North of Building 230	6
North Halleck Area	West of Building 230	55
North Halleck Area	West of Building 201	50
	SUBTOTAL	111
Fort Scott	Street parking and parking lot along Rod Road	15
	SUBTOTAL	15
Palace of Fine Arts	Palace of Fine Arts/Exploratorium	258
	SUBTOTAL	258
	TOTAL	1,723

Source: Presidio Trust, 2004.

Note: ^a The available parking supply in this lot could be impacted by demand generated by Building 640, 643, 644, 649, 650 and 651. Therefore it was assumed that 130 spaces would be available.

^b After construction of the Letterman Digital Arts Center is completed, 108 parking spaces will be available in this lot.

^c Parking supply assumed to be not available in this lot.

^d After construction of the Letterman Digital Arts Center is completed, 30 parking spaces will be available in this lot.

3.2 EXISTING PARKING DEMAND

This section examines whether the existing demand for parking is being met with the current supply. It is important to establish the existing parking demand to establish a baseline scenario for those parking areas affected by the Doyle Drive Project alternatives.

Currently, many of the parking areas are in flux in the Presidio. Some of the areas are blocked off for security reasons (such as those under the Doyle Drive viaduct) and others have been co-opted for activities related to the construction of the Letterman complex. Parking demand related to the Letterman project is temporary and, therefore, could not be considered as part of “typical” Presidio demand for the study area in either the existing or future scenarios. Therefore, it was not possible to identify current demand for parking based on a conventional demand survey by counting cars on a lot-by-lot basis. Instead, existing demand was calculated by applying parking demand rates to the buildings within the study area. The parking demand rates were supplied by the Presidio Trust. They are the same rates that were used in their PTMP effort, and they represent average weekday demand.² These rates are used in Table 3-2.

The calculation of parking demand is based on the square footage of each building and the activity for which the building is currently being used. The Presidio Trust provided this information. Table 3-2 shows the existing parking demand estimated for the study area.

**TABLE 3-2
EXISTING PARKING DEMAND**

Area	Building	Gross Square Footage	Existing Conditions		
			Use	Rate	Demand (spaces)
Crissy Field - Mason Warehouses	1182	12,072	industrial/warehouse	1.12	14
Crissy Field - Mason Warehouses	1183	12,862	vacant	0	0
Crissy Field - Mason Warehouses	1184	12,112	vacant	0	0
Crissy Field - Mason Warehouses	1185	13,600	cult./ed.	1.36	18
Crissy Field - Mason Warehouses	1186	12,630	vacant	0	0
Crissy Field - Mason Warehouses	1187	13,440	industrial/warehouse	1.12	15
Crissy Field - Mason Warehouses	1188	13,520	industrial/warehouse	1.12	15
	SUBTOTAL	90,236			62
Crissy Field - PX/Commissary	603	11,801	cult./ed.	1.36	16
Crissy Field - PX/Commissary	631	480	vacant	0	0
Crissy Field - PX/Commissary	632	480	vacant	0	0
Crissy Field - PX/Commissary	633	480	vacant	0	0
Crissy Field - PX/Commissary	605	42,319	vacant	0	0
Crissy Field - PX/Commissary	606	7,416	vacant	0	0
Crissy Field - PX/Commissary	610	92,722	warehouse retail	1.32	122
Crissy Field - PX/Commissary	653	5,413	vacant	0	0
	SUBTOTAL	161,111			138
Letterman - Gorgas Warehouses	1151	11,907	fitness	5.2	62
Letterman - Gorgas Warehouses	1152	13,847	fitness	5.2	72
Letterman - Gorgas Warehouses	1158	4,164	fitness	5.2	0

² Source: Correspondence from the Presidio Trust

Area	Building	Gross Square Footage	Existing Conditions		
			Use	Rate	Demand (spaces)
Letterman - Gorgas Warehouses	1160	5,453	vacant	0	0
Letterman - Gorgas Warehouses	1161	12,000	vacant	0	0
Letterman - Gorgas Warehouses	1162	12,175	office	2.17	26
Letterman - Gorgas Warehouses	1163	13,156	vacant	0	0
Letterman - Gorgas Warehouses	1167	12,095	vacant	0	0
Letterman - Gorgas Warehouses	1169	13,117	office	2.17	28
Letterman - Gorgas Warehouses	1170	12,596	vacant	0	0
	SUBTOTAL	110,510			188
Letterman - Thornburg Area	1029	100	dorms	n/a	25
Letterman - Thornburg Area	1030	-- ^a	dorms	-- ^a	-- ^a
Letterman - Thornburg Area	1040	7,520	vacant	0	0
Letterman - Thornburg Area	1063	28,797	industrial/warehouse	0.99	29
Letterman - Thornburg Area	1047	17,590	vacant	0	0
Letterman - Thornburg Area	1050	21,690	vacant	0	0
Letterman - Thornburg Area	1051	17,580	office	2.17	38
Letterman - Thornburg Area	1059	3,672	vacant	0	0
Letterman - Thornburg Area	1060	14,030	office	2.17	30
Letterman - Thornburg Area	1061	82	vacant	0	0
Letterman - Thornburg Area	1056	620	vacant	0	0
Letterman - Thornburg Area	1062	12,700	industrial/warehouse	0.99	13
Letterman - Thornburg Area	1076	390	Industrial/warehouse	0.99	0
	SUBTOTAL	124,281			135
North Halleck Area	205	121	industrial/warehouse	1.13	0
North Halleck Area	230	10,060	industrial/warehouse	1.13	11
North Halleck Area	231	3,842	industrial/warehouse	1.13	4
North Halleck Area	201	11,458	industrial/warehouse	1.13	13
North Halleck Area	204	12,144	office	2.18	26
	SUBTOTAL	56,515			55
Fort Scott - Rod Road	1263	10	residential	1.5	15
Fort Scott - Rod Road	1266	-- ^b	residential	-- ^b	-- ^b
Fort Scott - Rod Road	1270	-- ^b	residential	-- ^b	-- ^b
					15
Palace of Fine Arts	n/a	-- ^c	special use/museum	-- ^c	258^c
			TOTAL DEMAND (SPACES)		851

Source: Presidio Trust, 2004

Note:

^a Swords to Plowshares – There are a total of 100 dorm rooms in Buildings 1029 and 1030. Demand is based on current lease arrangement of 25 parking spaces.

^b Fort Scott - Rod Road – There is a total of ten one-bedroom units in Buildings 1263, 1266 and 1270.

^c Palace of Fine Arts – Existing parking demand varies based on special events at the Palace of Fine Arts; therefore parking demand is assumed to be equivalent to parking supply for the Palace of Fine Arts lot, as a conservative estimate.

The total existing demand for parking in the affected project area was calculated to be about 851 spaces, while the total existing supply is approximately 1,723 spaces. Overall, the supply of spaces exceeds demand and there is a net surplus of roughly 872 spaces.

Potential parking deficiencies were also analyzed on a more localized basis; that is, by analyzing the supply in the immediate area (400 m or less) of each building or each group of buildings; a 200-m distance was used for retail, medical-related uses and the Swords to Plowshares buildings (Buildings 1029 and 1030).

The existing parking demand for the Mason Street warehouses (Buildings 1182, 1183, 1184, 1185, 1186, 1187, and 1188) is 62 spaces on average, while the supply of parking spaces adjacent to the warehouses is approximately 165 spaces. Therefore, supply exceeds the demand by 103 spaces. Of the Mason Street warehouses, Buildings 1183, 1184, and 1186 are presently vacant, while Building 1182 is used for storage, Building 1185 is used for cultural/educational purposes, and Buildings 1187 and 1188 are used for industrial/warehouse purposes.

For the Commissary area near Crissy Field (Buildings 603, 605, 606, 610, 653, and 631), the existing demand for parking is 138 spaces, while the supply for parking far exceeds the demand with a total of approximately 695 spaces available. Building 603 is used for educational purposes, and the existing demand is 16 spaces. Building 610 is presently used for retail and has a parking demand of 122 spaces. The other buildings in the area, Buildings 605, 606, 653 and 631, are currently vacant.

Overall, the Letterman – Gorgas Warehouses area has an existing demand of 188 spaces. The Presidio YMCA Pool and Gym occupy Buildings 1151 and 1152; and the existing demand for the two buildings is 134 spaces. Building 1158 is currently occupied by a dance studio, Building 1162 currently houses an office and a wellness clinic, and Building 1169 is used for office space. The existing demand for parking for the three buildings is 76 spaces. Buildings 1160, 1161, 1163, 1167, and 1170 are presently vacant. The existing parking supply in areas that are a close distance from the warehouses is approximately 198 spaces. Therefore, the area currently has a total parking surplus of approximately 10 spaces.

For the Letterman - Thornburg area, the total demand for parking is 135 spaces, among five occupied buildings. Building 1051 (the Hospital Ward) is used for office space; Building 1060 (the Medical Supply Warehouse) is used for office space; Building 1062 (the Quartermaster Shop) is used for storage; Building 1063 (the Medical Supply Warehouse) is used for storage; and Building 1076 (the Ambulance Garage) is used for industrial/warehouse purposes. Buildings 1040, 1047, 1050, 1056, 1059, and 1061 are currently vacant. In terms of supply, there is street parking along Thornburg Road for 40 vehicles, as well as parking for 36 vehicles east of Building 1063. The 8-space lot south of Building 1063 is currently fenced off and not accessible to the general public. Residential dorms currently occupy Buildings 1029 and 1030, and the demand for parking is 25 spaces. This demand is met by the 175 parking lot northeast of Building 1029. In total, the parking supply in this area is approximately 281 spaces. There is a surplus of 146 parking spaces.

The total existing demand for parking for the North Halleck Area is approximately 55 spaces. With the exception of Building 205, the sewer lift station, there is parking demand for each building in this area. The existing demand for Buildings 201 and 204 is 39 spaces. The current use of Building 201, the Exchange Store, is for Presidio Trust storage and office space. Building 204 is currently NPS/Trust office space. In terms of existing parking supply, there is a 50-space lot west of Building 201 as well as a 55-space lot west of Building 230 that may be shared by visitors to Buildings 230 and 231. Building 230 is used as NPS/Presidio Trust storage, classroom, and office space, and Building 231 is currently used as an office and a warehouse. A small six-space parking area is located north of Building 230. There is an overall surplus of 56 spaces.

Buildings 1263, 1266, and 1270 (all Enlisted Family Housing Buildings) are located in the Fort Scott area along Rod Road. They are currently residential buildings and the existing parking demand is only 15 spaces. This demand is met by parking supply provided by five on-street parking spaces and a 10-space surface lot located along Rod Road. With a total of 15 spaces, this area currently has no parking shortfalls.

The Palace of Fine Arts area currently includes the Palace of Fine Arts Theater and the Exploratorium. Average or typical peak parking demand for the area is difficult to determine, since the demand generated by the Palace of Fine Arts Theater varies based on special events held there. The Exploratorium is a museum of science, art and human perception that is currently housed at the Palace of Fine Arts; however, it will be terminating its lease of the space within the next several years. The 258-space parking lot at the Palace of Fine Arts provides visitor parking as well as serves as a staging area for buses. The Exploratorium uses the parking lot to stage up to 30 school and/or tour buses at a single time and as a queue area for visitor groups of up to 200 people. The current capacity of the lot satisfies the needs of the Exploratorium visitors.³ As a conservative estimate, parking demand was assumed to be approximately equal to parking supply in the Palace of Fine Arts lot.

³ Mary Hobson, Project Director, City and County of San Francisco, Recreation and Park Department, personal correspondence, June 28, 2004.

SECTION 4: PARKING IMPACT ANALYSIS SCENARIOS

4.1 FUTURE NO-BUILD ALTERNATIVE

For future No-Build Conditions (without the Doyle Drive Project), the parking supply is assumed to remain the same as under existing conditions (described in Section 3.1). Although there are several areas that could be converted to parking areas in the future, it was determined that the forces that would be driving these conversions (such as the leasing out of some buildings or changes in security requirements) can not be known at this time and are too speculative. The future No-Build parking supply is summarized by area in Table 4-1.

**TABLE 4-1
FUTURE SUPPLY BY AREA FOR THE FUTURE NO-BUILD CONDITIONS**

Area	2010 No-Build Supply (spaces)	2030 No-Build Supply (spaces)
Mason Street Warehouses	165	165
PX/Commissary	695	695
Gorgas Avenue Warehouses	198	198
Thornburg Area	281	281
North Halleck Area	111	111
Fort Scott – Rod Road	15	15
Palace of Fine Arts	258	258
Total	1,723	1,723

Source: Parsons Brinckerhoff, Inc. September 2004

Table 4-2 summarizes future No-Build average weekday parking demand by area. Some of the building uses are expected to change under 2010 and/or 2030 conditions, based on information provided by the Presidio Trust. Table B-1 in the Appendix shows the land uses assumed for each building for each future scenario. Changes in land use affect the parking demand generated by each building. Under 2010 No-Build conditions, Buildings 631, 632 and 633 in the PX/Commissary area are assumed to be vacant. In 2030, only Building 1158 is assumed to be vacant.

**TABLE 4-2
FUTURE AVERAGE WEEKDAY DEMAND BY AREA FOR FUTURE NO-BUILD CONDITIONS**

Area	2010 No-Build Demand (spaces)	2030 No-Build Demand (spaces)
Mason Street Warehouses	111	163
PX/Commissary	188	217
Gorgas Avenue Warehouses	336	274
Thornburg Area	276	439
North Halleck Area	67	52
Fort Scott – Rod Road	15	15
Palace of Fine Arts	258	258
Total	1,251	1,418

Source: Parsons Brinckerhoff, Inc. September 2004.

Tables 4-3 and 4-4 compare the supply and demand of each area to determine if there would be surpluses or deficiencies of parking spaces within each area as part of No-Build conditions. This serves as a baseline for

comparison with changes in the supply and demand for parking under each of the project alternatives. By identifying baseline conditions, it will be possible to determine if any of the Doyle Drive alternatives would result in conditions different to those than would be expected under No-Build conditions.

**TABLE 4-3
SUPPLY AND DEMAND COMPARISON BY AREA FOR FUTURE NO-BUILD CONDITIONS (2010)**

Area	Supply (spaces)	Demand (spaces)	Surplus/ Deficiency (spaces)	Adjusted Surplus/ Deficiency (spaces)
Mason Street Warehouses	165	111	54	0
PX/Commissary	695	188	561	477
Gorgas Avenue Warehouses	198	336	-138	0
Thornburg Area	281	276	-5	-5
North Halleck Area	111	67	44	44
Fort Scott – Rod Road	15	15	0	0
Palace of Fine Arts	258	258	0	0
Total	1,723	1,251	516	516

Source: Parsons Brinckerhoff, Inc. September 2004.

Notes: The adjusted surplus/deficiency calculation assumes that a portion of parking surpluses in adjacent areas can be used for deficiencies: the Mason Street Warehouses surplus (54 spaces) and 84 spaces of the 108-space lot in the PX/Commissary area was applied to the Gorgas Warehouses deficiency.

**TABLE 4-4
SUPPLY AND DEMAND COMPARISON BY AREA FOR FUTURE NO-BUILD CONDITIONS (2030)**

Area	Supply (spaces)	Demand (spaces)	Surplus/ Deficiency (spaces)	Adjusted Surplus/ Deficiency (spaces)
Mason Street Warehouses	165	163	2	2
PX/Commissary	695	217	478	370
Gorgas Avenue Warehouses	198	274	-76	0
Thornburg Area	281	439	-158	-126
North Halleck Area	111	52	59	59
Fort Scott – Rod Road	15	15	0	0
Palace of Fine Arts	258	258	0	0
Total	1,723	1,418	305	305

Source: Parsons Brinckerhoff, Inc. September 2004.

Notes: The adjusted surplus/deficiency calculation assumes that a portion of parking surpluses in adjacent areas can be used for deficiencies: 76 spaces of the 108-space lot in the PX/Commissary area was applied to the Gorgas Warehouse deficiency and 32 spaces were applied to the Thornburg Area deficiency.

Tables 4-3 and 4-4 show that most areas in the study area would have a surplus of parking spaces under future No-Build conditions. Two areas, however, would experience more demand within their area than the available supply (Gorgas Avenue warehouses – under 2010 conditions only, and Thornburg Area). Overall, the study area would experience a surplus of parking of approximately 516 spaces in 2010 and approximately 305 spaces in 2030. The PX/Commissary Area would have the largest surplus (between 478 and 561 spaces). The surplus and deficiencies for some areas was adjusted to show that there is overlap in the use of parking lots between areas. The overall total surplus or deficiency for the total study area was not affected.

Tables 4-3 and 4-4 show this information. The adjusted surplus/deficiency figure was used in the calculation of potential unmet demand later in this report.

Overall, the study area would not have a parking shortage in the future (in the no-build conditions). This is consistent with the Presidio Trust Management Plan (PTMP) that indicates that some parking spaces would be removed and some existing parking spaces would be relocated to in order to provide adequate parking to meet tenants' needs.

4.2 CONSTRUCTION SCENARIO IMPACTS

The temporary impacts analysis reflects conditions when construction activities for the Doyle Drive project would have the most impact in terms of the number of parking areas affected. It is assumed that this would be year 2010. Construction of the entire Doyle Drive project would take, at most, five years with most activity at individual locations lasting, on average, about two years. For all the Doyle Drive alternatives parking supply under the construction scenario would be affected by the temporary loss of parking spaces due to construction staging and related activities. Parking needed for construction workers is not currently reflected in these numbers. Contractors would be required to provide to provide employee parking in the staging areas that have been identified and/or they will negotiate with the Presidio Trust to identify off-site parking areas and implement a shuttle system to worksites. In most cases, the spaces would be reinstated once the project is complete. The parking demand for each alternative reflects buildings that would be temporarily or permanently removed during construction. Impacts would occur when the demand for parking would not be met by the available supply, excluding any parking deficiencies that would occur under the no-build conditions.

4.2.1 Replace and Widen Alternative

The Replace and Widen Alternative has two possible construction methods: Detour Option and No Detour Option. The potential parking impacts associated with each option under 2010 construction conditions are described below.

4.2.1.1 Replace and Widen Alternative - Detour Option

This section describes parking impacts related to the Replace and Widen Alternative using the “Detour Option” construction method. The Detour Option involves constructing a temporary detour structure to the north of the existing Doyle Drive roadway, through the Mason Street warehouses and Crissy Field – PX/Commissary areas.

Supply

Construction of the Replace and Widen Alternative – Detour Option would result in a temporary loss of 714 parking spaces within the study area (Table 4-5). Most of the losses would occur in the Crissy Field areas and around the Gorgas Avenue Warehouses. There would be a remaining total parking supply of 1,009 parking spaces.

**TABLE 4-5
FUTURE SUPPLY BY AREA FOR THE REPLACE AND WIDEN ALTERNATIVE – DETOUR OPTION
(2010)**

Area	Future No-Build Supply (spaces) [from Table 4-1]	Replace and Widen – Detour Option Supply (spaces)	Change in Supply (spaces)
Mason Street Warehouses	165	56	-109
PX/Commissary	695	238	-457

Area	Future No-Build Supply (spaces) [from Table 4-1]	Replace and Widen – Detour Option Supply (spaces)	Change in Supply (spaces)
Gorgas Avenue Warehouses	198	60	-138
Thornburg Area	281	281	0
North Halleck Area	111	101	-10
Fort Scott – Rod Road	15	15	0
Palace of Fine Arts	258	258	0
Total	1,723	1,009	-714

Source: Parsons Brinckerhoff, Inc. September 2004.

Approximately 109 spaces would be temporarily displaced in the Mason Street Warehouses area, between the mainline Doyle Drive viaduct and Mason Street, to accommodate the temporary detour structure and related construction activities. Over half of the spaces in the Post Exchange/Commissary parking area (457 spaces) would also be removed due to the temporary detour structure. In addition, all of the spaces located behind the Gorgas Warehouses (138 spaces) and 10 spaces in the North Halleck Area would be removed during construction. There would no change in the parking supply in the Thornburg, Rod Road and Palace of Fine Arts areas.

Demand

Table 4-6 shows the demand by area for year 2010 with the Replace and Widen Alternative – Detour Option. There would be a net decrease in parking demand in the area due to a loss of buildings and land use changes in the Mason Street Warehouses and PX/Commissary areas. Four buildings in the Mason Street warehouses area (Buildings 1182, 1183, 1184, and 1185) and four buildings in the PX/Commissary (Buildings 605, 606, 610, and 653) are assumed to be removed to accommodate the project. Buildings 631, 632 and 633 are assumed to be vacant.

**TABLE 4-6
FUTURE DEMAND BY AREA FOR THE REPLACE AND WIDEN ALTERNATIVE - DETOUR OPTION (2010)**

Area	Future No-Build Demand (spaces) [from Table 4-2]	Replace and Widen – Detour Option Demand (spaces)	Change in Demand (spaces)
Mason Street Warehouses	111	44	-67
PX/Commissary	188	16	-172
Gorgas Avenue Warehouses	336	336	0
Thornburg Area	276	276	0
North Halleck Area	67	67	0
Fort Scott – Rod Road	15	15	0
Palace of Fine Arts	258	258	0
Total	1,251	1,012	-239

Source: Parsons Brinckerhoff, Inc. September 2004.

Most of this demand generated within the study area would be concentrated south of the existing Doyle Drive viaduct in the Gorgas Warehouses, and Thornburg Area (612 spaces total). The North Halleck Area is located to the west of these areas and would generate a peak demand of 67 parking spaces. On the north side of the Doyle Drive structure, the Crissy Field Center in the PX/Commissary area would generate a peak demand for 16 spaces; and the Mason Warehouses area would generate a peak demand for 44 spaces. The

Rod Road area would generate an additional peak demand of 15 parking spaces. Appendix B (Table B-2) shows the 2010 parking demand calculated for this alternative.

Impacts

Table 4-7 compares the estimated parking supply and demand in each area under the Replace and Widen Alternative – Detour Option conditions in 2010.

**TABLE 4-7
SUPPLY AND DEMAND COMPARISON BY AREA FOR THE REPLACE AND WIDEN ALTERNATIVE -
DETOUR OPTION (2010)**

Area	Supply (spaces)	Demand (spaces)	Surplus/Deficiency (spaces)	Adjusted Surplus/Deficiency (spaces)
Mason Street Warehouses	56	44	12	0
PX/Commissary	238	16	222	114
Gorgas Avenue Warehouses	60	336	-276	-156
Thornburg Area	281	276	5	5
North Halleck Area	101	67	34	34
Fort Scott – Rod Road	15	15	0	0
Palace of Fine Arts	258	258	0	0
Total	1,009	1,012	-3	-3

Source: Parsons Brinckerhoff, Inc. September 2004.

Notes: The adjusted surplus/deficiency calculation that a portion of parking surpluses in adjacent areas can be used for deficiencies: the Mason Street warehouses (12 spaces) surplus and all spaces of the 108-space lot in the PX/Commissary area was applied to the Gorgas Warehouse area deficiency.

The numbers in this table indicate that under the Replace and Widen Alternative – Detour Option, there would be parking deficiencies in two areas: Gorgas Avenue Warehouses, and Thornburg Area. In the remaining areas, estimated parking supply would meet or exceed estimated parking demand under the Replace and Widen Alternative – Detour Option. Overall, there would be a parking deficiency of 3 spaces in the study area.

When adjusted for the use of parking surplus in adjacent areas, the Gorgas Warehouse area would have a deficiency of 156 spaces.

Table 4-8 compares the parking surpluses or deficiencies by area identified for the Replace and Widen Alternative – Detour Option with 2010 No-Build conditions. The Replace and Widen Alternative – Detour Option would not create any new impacts in most areas. In the Gorgas Avenue Warehouses area, the parking deficiency would increase from no spaces to 156 spaces. Therefore, unmet demand due to the Replace and Widen Alternative – Detour Option would be a total of 156 spaces.

**TABLE 4-8
ESTIMATED UNMET DEMAND DUE TO REPLACE AND WIDEN ALTERNATIVE – DETOUR OPTION
(2010)**

Area	Replace and Widen – Detour Option Surplus/Deficiency (spaces)	2010 No-Build Surplus/Deficiency (spaces)	Unmet Demand due to Replace and Widen – Detour Option (spaces)
Mason Street Warehouses	0	54	0
PX/Commissary	114	477	0
Gorgas Avenue Warehouses	-156	0	-156
Thornburg Area	5	-5	0
North Halleck Area	34	44	0
Fort Scott – Rod Road	0	0	0
Palace of Fine Arts	0	0	0
Total	-3	516	-156

Source: Parsons Brinckerhoff, Inc. September 2004.

Mitigation

Mitigation is required to replace the 156 parking spaces (net loss) that would be lost in the Gorgas Avenue Warehouses area during construction of the Replace and Widen Alternative – Detour Option. 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 for 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.

There are several large parking lots located within 400 meters (1/4 mile) of the Gorgas Avenue Warehouses area which would be candidate locations for replacement parking. The 175-space lot located east of Building 230 would provide the closest alternative parking. Two other lots, the 55-space lot west of Building 230 and the 30-space area located east of Building 1051 (in the North Halleck area) are also located within 400 meters of the warehouses and could also be available for Gorgas Avenue Warehouse users. The 108-space lot between Halleck and Marshall Streets could be available as well.

4.2.1.2 Replace and Widen Alternative - No Detour Option

The Replace and Widen Alternative – No Detour Option would not require the temporary detour structure through the Mason Street Warehouses and PX/Commissary areas. However, areas of the PX/Commissary would still be used for construction staging and construction in the Gorgas Avenue Warehouses and Palace of Fine Arts areas would be altered to provide temporary access ramps for rerouting traffic.

Supply

Construction of the Replace and Widen Alternative – No Detour Option would result in a temporary loss of 934 parking spaces within the study area (Table 4-9). Most of the losses would occur in the PX/Commissary, Gorgas Avenue warehouses, and Palace of Fine Arts areas. There would be a remaining total parking supply of 792 parking spaces.

**TABLE 4-9
FUTURE SUPPLY BY AREA FOR THE REPLACE AND WIDEN ALTERNATIVE - NO DETOUR OPTION
(2010)**

Area	Future No-Build Supply (spaces) [from Table 4-1]	Replace and Widen – No Detour Option Supply (spaces)	Change in Supply (spaces)
Mason Street Warehouses	165	152	-13
PX/Commissary	695	46	-649
Gorgas Avenue Warehouses	198	60	-138
Thornburg Area	281	281	0
North Halleck Area	111	85	-26
Fort Scott – Rod Road	15	15	0
Palace of Fine Arts	258	153	-108
Total	1,723	792	-934

Source: Parsons Brinckerhoff, Inc. September 2004.

Approximately 13 spaces would be removed in the Mason Street Warehouses area, along the south side of Lundeen Street, due to the widening of Doyle Drive. In the PX/ Commissary area, a majority of the parking spaces would be temporarily displaced to provide areas for construction staging (649 spaces); however, adequate parking would be retained to meet projected demand in the area. The 138-space parking lot behind the Gorgas Warehouses would be removed to accommodate the realignment of Richardson Avenue. Approximately 26 spaces in the North Halleck Area would be temporarily removed during construction. In addition, approximately 108 spaces would be removed in the Palace of Fine Arts parking lot to accommodate construction of a temporary ramp between Doyle Drive and Richardson Avenue. There would be no change in the parking supply in the Thornburg, and Rod Road areas.

Demand

Table 4-10 shows the demand by area for year 2010 with the Replace and Widen Alternative – No Detour Option. There would be a net decrease in parking demand in the area, compared to No-Build conditions, due to the removal of Building 1158 in the Gorgas Avenue Warehouse area. Building 1158 would be removed to accommodate the realignment of Richardson Avenue. The Appendix B (Table B-3) shows the 2010 parking demand calculated for this alternative. Buildings 631, 632 and 633 in the PX/Commissary are assumed to be vacant.

**TABLE 4-10
FUTURE DEMAND BY AREA FOR THE REPLACE AND WIDEN ALTERNATIVE - NO DETOUR (2010)**

Area	Future No-Build Demand (spaces) [from Table 4-2]	Replace and Widen – No Detour Demand (spaces)	Change in Demand (spaces)
Mason Street Warehouses	111	111	0
PX/Commissary	188	188	0
Gorgas Avenue Warehouses	336	327	-9
Thornburg Area	276	276	0
North Halleck Area	67	67	0
Fort Scott – Rod Road	15	15	0
Palace of Fine Arts	258	258	0
Total	1,251	1,242	-9

Source: Parsons Brinckerhoff, Inc. September 2004.

Impacts

Table 4-11 compares the estimated parking supply and demand in each area under the Replace and Widen Alternative – No Detour Option conditions in 2010.

**TABLE 4-11
SUPPLY AND DEMAND COMPARISON BY AREA FOR THE REPLACE AND WIDEN ALTERNATIVE –
NO DETOUR OPTION (2010)**

Area	Supply (spaces)	Demand (spaces)	Surplus/Deficiency (spaces)	Adjusted Surplus/Deficiency (spaces)
Mason Street Warehouses	152	111	41	0
PX/Commissary	46	188	-142	-142
Gorgas Avenue Warehouses	60	327	-267	-226
Thornburg Area	281	276	5	5
North Halleck Area	85	67	18	18
Fort Scott – Rod Road	15	15	0	0
Palace of Fine Arts	153	258	-105	-105
Total	792	1,242	-450	-450

Source: Parsons Brinckerhoff, Inc. September 2004.

Notes: The adjusted surplus/deficiency calculation assumes that a portion of parking surpluses in adjacent areas can be used for deficiencies: the Mason Street Warehouses surplus (41 spaces) was applied to the Gorgas Warehouse area deficiency.

The numbers in this table indicate that under the Replace and Widen Alternative – No Detour Option, there would be parking deficiencies in the following three areas: PX/Commissary, Gorgas Avenue Warehouses, and Palace of Fine Arts. In the four remaining areas, estimated parking supply would meet or exceed estimated parking demand under the Replace and Widen Alternative – No Detour Option. Overall, there would be a parking deficiency of 450 spaces in the study area.

If deficiencies are adjusted fro surpluses in adjacent areas, the deficiency in the Gorgas Warehouse area would decrease to 226 spaces.

Table 4-12 compares the parking surpluses or deficiencies by area identified for the Replace and Widen Alternative – No Detour Option with 2010 No-Build conditions. In the Gorgas Avenue Warehouses area, the parking deficiency would be 226 spaces under the Replace and Widen Alternative – No Detour Option compared to no spaces under 2010 No-Build conditions, resulting in an additional unmet demand of 226 spaces. In the Palace of Fine Arts area, the Replace and Widen Alternative – No Detour Option would result in a temporary parking deficiency of 105 spaces. Therefore, unmet demand due to the Replace and Widen Alternative – No Detour Option would be a total of 473 spaces.

**TABLE 4-12
ESTIMATED UNMET DEMAND DUE TO THE REPLACE AND WIDEN ALTERNATIVE – NO DETOUR
OPTION (2010)**

Area	Replace and Widen – No Detour Option Surplus/Deficiency (spaces)	2010 No-Build Surplus/Deficiency (spaces)	Unmet Demand due to Replace and Widen – No Detour Option (spaces)
Mason Street Warehouses	0	0	0
PX/Commissary	-142	477	-142
Gorgas Avenue Warehouses	-226	0	-226
Thornburg Area	5	-5	0
North Halleck Area	18	44	0
Fort Scott – Rod Road	0	0	0
Palace of Fine Arts	-105	0	-105
Total	-450	516	-473

Source: Parsons Brinckerhoff, Inc. September 2004.

Mitigation

Mitigation is required to replace the 142 spaces lost in PX/Commissary area (net loss), the 226 parking spaces (net loss) that would be removed in the Gorgas Street Warehouses area and the 105 spaces that would be displaced in the Palace of Fine Arts area during construction of the Replace and Widen Alternative – No Detour Option. 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 for 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.

There are several large parking lots located within 400 meters (1/4 mile) of the Gorgas Avenue Warehouses area which would be candidate locations for replacement parking. The 175-space lot located east of Building 230 would provide the closest alternative parking. Two other lots, the 55-space lot west of Building 230 and the 30-space area located east of Building 1051 (in the North Halleck area) are also located within 400 meters of the warehouses and could also be available for Gorgas Avenue Warehouse users. Due to the loss of parking at the Palace of Fine Arts (PFA), additional space may be needed for bus staging. The Parade Grounds would be a candidate location to stage buses and transport visitors to PFA via shuttle buses. The availability of parking at this location would depend on parking demand generated by additional land use and any modifications made to the parking supply by the year 2010. On-street parking next to the Parade Grounds may also be available.

Wayfarer signage would be used to direct users to alternative parking locations.

4.2.2 Parkway Alternative

The Parkway Alternative has two design options for local access to the Presidio: Diamond Option and Circle Drive Option. For both design options, the anticipated parking supply in the study area would be the same under 2010 conditions. However, the parking demand under Diamond Option would be slightly greater since Building 1151 (in the Gorgas Warehouses area) would be retained, whereas this building would be removed under the Circle Drive Option. The parking demand under the Diamond Option, which includes Building 1151, is evaluated in the 2010 analysis since it is more conservative.

Supply

The construction of the Parkway Alternative would result in an overall loss of parking of approximately 1,364 spaces (Table 4-13). In the PX/Commissary area, a majority of the parking spaces would be temporarily displaced to provide areas for construction staging (692 spaces); however, adequate parking would be retained to meet projected demand in the area. The parking areas adjacent to the Gorgas Street warehouses would be reduced by 170 parking spaces; parking in the Swords and Plowshares area would be reduced by approximately 130 spaces; and parking in the North Halleck area would be reduced by approximately 111 spaces. In addition, approximately three spaces would be displaced in the Rod Road area and the 258 spaces in the Palace of Fine Arts parking lot would be removed for construction staging related to construction of an underground parking garage. About 714 spaces would remain in this study area during construction.

**TABLE 4-13
FUTURE SUPPLY BY AREA FOR PARKWAY ALTERNATIVE (2010)**

Area	Future No-Build Supply (spaces) [from Table 4-1]	Parkway Alternative Supply (spaces)	Change in Supply (spaces)
Mason Street Warehouses	165	165	0
PX/Commissary	695	3	-692
Gorgas Avenue Warehouses	198	28	-170
Thornburg Area	281	151	-130
North Halleck Area	111	0	-111
Fort Scott – Rod Road	15	12	-3
Palace of Fine Arts	258	0	-258
Total	1,723	359	-1,364

Source: Parsons Brinckerhoff, Inc. September 2004.

Demand

Under Parkway Alternative conditions, there would be a reduction in the average weekday parking demand of about 119 parking spaces. Only the PX/Commissary, Gorgas Warehouses, and North Halleck areas would have a reduced demand in parking. The overall demand for the study area would be approximately 1,132 parking spaces. Buildings 631, 632 and 633 in the PX/Commissary area are assumed to be vacant. Buildings 605 and 606, and Buildings 1158 in the Thornburg area and all of the Buildings in the North Halleck Area are assumed to be removed for the project.

**TABLE 4-14
FUTURE AVERAGE WEEKDAY PARKING DEMAND BY AREA FOR PARKWAY ALTERNATIVE (2010)**

Area	Future No-Build Demand (spaces) [from Table 4-2]	Parkway Alternative Demand (spaces)	Change in Demand (spaces)
Mason Street Warehouses	111	111	0
PX/Commissary	188	145	-43
Gorgas Avenue Warehouses	336	327	-9
Thornburg Area	276	276	0
North Halleck Area	67	0	-67

Area	Future No-Build Demand (spaces) [from Table 4-2]	Parkway Alternative Demand (spaces)	Change in Demand (spaces)
Fort Scott – Rod Road	15	15	0
Palace of Fine Arts	258	258	0
Total	1,251	1,132	-119

Source: Parsons Brinckerhoff, Inc. September 2004.

Impacts

Table 4-11 compares the estimated parking supply and demand in each area under the Parkway Alternative in 2010.

**TABLE 4-15
SUPPLY AND DEMAND COMPARISON BY AREA FOR THE PARKWAY ALTERNATIVE (2010)**

Area	Supply (spaces)	Demand (spaces)	Surplus/Deficiency (spaces)	Adjusted Surplus/Deficiency (spaces)
Mason Street Warehouses	165	111	54	0
PX/Commissary	3	145	-142	-142
Gorgas Avenue Warehouses	28	327	-299	-245
Thornburg Area	151	276	-125	-125
North Halleck Area	0	0	0	0
Fort Scott – Rod Road	12	15	-3	-3
Palace of Fine Arts	0	258	-258	-258
Total	359	1,132	-773	773

Source: Parsons Brinckerhoff, Inc. September 2004.

Notes: The adjusted surplus/deficiency calculation assumes that a portion of parking surpluses in adjacent areas can be used for deficiencies: the Mason Street warehouses area surplus (54 spaces) was applied to the Gorgas Warehouse deficiency.

The numbers in this table indicate that under the Parkway Alternative, there would be parking deficiencies in the following four areas: PX/Commissary, Gorgas Avenue Warehouses, Thornburg Area, Fort Scott – Rod Road, and Palace of Fine Arts. In the two remaining areas, estimated parking deficiency would meet or exceed estimated parking demand under the Parkway Alternative. Overall, there would be a parking deficiency of 773 spaces in the study area.

Table 4-16 compares the parking surpluses or deficiencies by area identified for the Parkway Alternative with 2010 No-Build conditions. As shown in the table, the parking deficiencies in the Thornburg Area would increase from five spaces to 125 spaces with the Parkway Alternative. In the Gorgas Avenue Warehouses area, the parking deficiency would be 245 spaces under the Parkway Alternative compared to a deficiency of no spaces under 2010 No-Build conditions. In the Palace of Fine Arts area, the Parkway Alternative would result in a parking deficiency of 258 spaces due to removal of the surface parking lot during construction. Overall, unmet demand due to the Parkway Alternative would be a total of 768 spaces.

**TABLE 4-16
ESTIMATED UNMET DEMAND DUE TO THE PARKWAY ALTERNATIVE (2010)**

Area	Parkway Alternative Surplus/Deficiency (spaces)	2010 No-Build Surplus/Deficiency (spaces)	Unmet Demand due to Parkway Alternative (spaces)
Mason Street Warehouses	0	0	0
PX/Commissary	-142	477	-142
Gorgas Avenue Warehouses	-245	0	-245
Thornburg Area	-125	-5	-120
North Halleck Area	0	44	0
Fort Scott – Rod Road	-3	0	-3
Palace of Fine Arts	-258	0	-258
Total	-773	516	-768

Source: Parsons Brinckerhoff, Inc. September 2004.

Mitigation

Construction-period parking impacts due to the Parkway Alternative would occur in the Gorgas Avenue Warehouses, and Palace of Fine Arts areas. 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 for 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.

There are several large parking lots located within 400 meters (1/4 mile) of the Gorgas Avenue Warehouses area which would be candidate locations for replacement parking. The 175-space lot located east of Building 230 would provide the closest alternative parking. Two other lots, the 55-space lot west of Building 230 and the 30-space area located east of Building 1051 (in the North Halleck area) are also located within 400 meters of the warehouses and could also be available for Gorgas Avenue Warehouse users. Due to the loss of parking at the Palace of Fine Arts (PFA), additional space may be needed for bus staging. The Parade Grounds would be a candidate location to stage buses and transport visitors to PFA via shuttle buses. The availability of parking at this location would depend on parking demand generated by additional land use and any modifications made to the parking supply by the year 2010. On-street parking next to the Parade Grounds may also be available. This location should also be considered to accommodate visitors arriving by private vehicle. These patrons could also use the shuttle bus arrangement to access PFA.

Wayfarer signage would be used to direct users to alternative parking locations.

4.3 DOYLE DRIVE PROJECT SCENARIO (LONG-TERM IMPACTS)

4.3.1 Replace and Widen Alternative

The potential long-term parking impacts associated with the Replace Widen Alternative, with either the Detour Option or No Detour Option, are described in the following sections. As with the construction scenario impacts, long-term parking impacts would occur when demand would exceed the available supply, excluding any parking deficiencies identified under No-Build conditions.

4.3.1.1 Replace and Widen Alternative – Detour Option

Supply

The construction of the Replace and Widen Alternative – Detour Option would result in an overall loss of parking of 53 spaces (Table 4-17). These spaces would be permanently lost in the lot adjacent to Building 610 and in the Gorgas Avenue warehouses area. About 1,670 spaces would remain in this study area after the completion of the Replace and Widen Alternative – Detour Option.

**TABLE 4-17
FUTURE SUPPLY BY AREA FOR REPLACE AND WIDEN ALTERNATIVE – DETOUR OPTION (2030)**

Area	Future No-Build Supply (spaces) [from Table 4-1]	Replace and Widen – Detour Option Supply (spaces)	Change in Supply (spaces)
Mason Street Warehouses	165	165	0
PX/Commissary	695	662	-33
Gorgas Avenue Warehouses	198	178	-20
Thornburg Area	281	281	0
North Halleck Area	111	111	0
Fort Scott – Rod Road	15	15	0
Palace of Fine Arts	258	258	0
Total	1,723	1,670	-53

Source: Parsons Brinckerhoff, Inc. September 2004.

Demand

Under Replace and Widen Alternative – Detour Option, there would be a reduction in the average weekday parking demand of about 201 parking spaces from 2030 No-Build conditions (Table 4-18). The decrease would occur in the PX/Commissary area where four buildings would be removed. The overall demand for the study area would be approximately 1,353 parking spaces.

**TABLE 4-18
FUTURE AVERAGE WEEKDAY PARKING DEMAND BY AREA FOR THE REPLACE AND WIDEN ALTERNATIVE – DETOUR OPTION (2030)**

Area	Future No-Build Demand (spaces) [from Table 4-2]	Replace and Widen – Detour Option Demand (spaces)	Change in Demand (spaces)
Mason Street Warehouses	163	163	0
PX/Commissary	217	152	-65
Gorgas Avenue Warehouses	274	274	0
Thornburg Area	439	439	0
North Halleck Area	52	52	0
Fort Scott – Rod Road	15	15	0
Palace of Fine Arts	258	258	0
Total	1,418	1,353	-65

Source: Parsons Brinckerhoff, Inc. September 2004.

Impacts

Table 4-19 shows a comparison of estimated parking supply and demand under the Replace and Widen Alternative – Detour Option in 2030.

**TABLE 4-19
SUPPLY AND DEMAND COMPARISON BY AREA FOR THE REPLACE AND WIDEN ALTERNATIVE –
DETOUR OPTION (2030)**

Area	Supply (spaces)	Demand (spaces)	Surplus/Deficiency (spaces)	Adjusted Surplus/Deficiency (spaces)
Mason Street Warehouses	165	163	2	2
PX/Commissary	662	152	510	402
Gorgas Avenue Warehouses	178	274	-96	0
Thornburg Area	281	439	-158	-146
North Halleck Area	111	52	59	59
Fort Scott – Rod Road	15	15	0	0
Palace of Fine Arts	258	258	0	0
Total	1,670	1,353	317	317

Source: Parsons Brinckerhoff, Inc. September 2004.

Notes: The adjusted surplus/deficiency calculation assumes that portion of parking surpluses in adjacent areas can be used for deficiencies: 96 spaces in the 108-space lot in the PX/Commissary area were applied to the Gorgas Warehouse deficiency and 12 spaces were applied to the Thornburg deficiency.

The numbers in this table indicate that under the Replace and Widen Alternative – Detour Option, there would be parking deficiencies in the Thornburg area and Gorgas Avenue Warehouses area. In the remaining areas, estimated parking supply would meet or exceed estimated parking demand under the Parkway Alternative. Overall, there would be a parking surplus of 317 spaces in the study area.

If adjustments are made to reduce deficiencies with surplus in adjacent areas, then the deficiency in the Thornburg areas would be reduced to 146 spaces and the Gorgas Avenue Warehouses deficiency would be eliminated.

Table 4-20 compares the parking surpluses or deficiencies by area identified for the Replace and Widen Alternative – Detour Option with 2030 No-Build conditions. As shown in the table, unmet demand beyond that calculated for No-Build conditions would occur in the Thornburg area. There would be an unmet deficiency of 20 spaces.

**TABLE 4-20
ESTIMATED UNMET DEMAND DUE TO THE REPLACE AND WIDEN ALTERNATIVE – DETOUR OPTION
(2030)**

Area	Replace and Widen – Detour Option Surplus/Deficiency (spaces)	2030 No-Build Surplus/Deficiency (spaces)	Unmet Demand due to Replace and Widen – Detour Option (spaces)
Mason Street Warehouses	2	2	0
PX/Commissary	402	370	0
Gorgas Avenue	0	0	0

Area	Replace and Widen – Detour Option Surplus/Deficiency (spaces)	2030 No-Build Surplus/Deficiency (spaces)	Unmet Demand due to Replace and Widen – Detour Option (spaces)
Warehouses			
Thornburg Area	-146	-126	-20
North Halleck Area	59	59	0
Fort Scott – Rod Road	0	0	0
Palace of Fine Arts	0	0	0
Total	317	305	-20

Source: Parsons Brinckerhoff, Inc. September 2004.

Mitigation

Mitigation would be required to replace the 20 spaces that would be lost in the Thornburg area with the Replace and Widen Alternative – Detour Option.

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.

There are several parking lots located within 400 meters (1/4 mile) of the Thornburg Area which would be candidate locations for replacement parking. They include the 55-space and 50-space lots in the North Halleck area.

4.3.1.2 Replace and Widen Alternative – No Detour Option

Supply

The construction of the Replace and Widen Alternative – No Detour Option would result in an overall loss of parking of 43 spaces (Table 4-21). Spaces would be permanently lost in the Mason Street Warehouses, PX/Commissary, and Gorgas Avenue Warehouses areas. The 138-space parking lot behind the Gorgas Warehouses would be removed due to realignment of Richardson Avenue; however, approximately 96 spaces would be replaced in the area previously occupied by the existing roadway, resulting in a net loss of approximately 42 spaces in this area. Approximately 35 spaces would also be added to the Palace of Fine Arts area, adjacent to the realigned Richardson Avenue roadway. In total, about 1,680 spaces would remain in this study area after the completion of the Replace and Widen Alternative – No Detour Option.

**TABLE 4-21
FUTURE SUPPLY BY AREA FOR REPLACE AND WIDEN ALTERNATIVE – NO DETOUR OPTION (2030)**

Area	Future No-Build Supply (spaces) [from Table 4-1]	Replace and Widen – No Detour Option Supply (spaces)	Change in Supply (spaces)
Mason Street Warehouses	165	162	-3
PX/Commissary	695	662	-33
Gorgas Avenue Warehouses	198	156	-42
Thornburg Area	281	281	0
North Halleck Area	111	111	0
Fort Scott – Rod Road	15	15	0
Palace of Fine Arts	258	293	35
Total	1,723	1,680	-43

Source: Parsons Brinckerhoff, Inc. September 2004

Demand

Under Replace and Widen Alternative – No Detour Option conditions, there would be no change in the average weekday parking demand compared to the 2030 No-Build conditions (total demand of 1,292 spaces).

**TABLE 4-22
FUTURE AVERAGE WEEKDAY PARKING DEMAND BY AREA FOR THE REPLACE AND WIDEN ALTERNATIVE – NO DETOUR OPTION (2030)**

Area	Future No-Build Demand (spaces) [from Table 4-2]	Replace and Widen – No Detour Option Demand (spaces)	Change in Demand (spaces)
Mason Street Warehouses	163	163	0
PX/Commissary	217	217	0
Gorgas Avenue Warehouses	274	274	0
Thornburg Area	439	439	0
North Halleck Area	52	52	0
Fort Scott – Rod Road	15	15	0
Palace of Fine Arts	258	258	0
Total	1,418	1,418	0

Source: Parsons Brinckerhoff, Inc. September 2004.

Impacts

Table 4-23 shows a comparison of estimated parking supply and demand under the Replace and Widen Alternative – No Detour Option in 2030.

**TABLE 4-23
SUPPLY AND DEMAND COMPARISON BY AREA FOR THE REPLACE AND WIDEN ALTERNATIVE – NO DETOUR OPTION (2030)**

Area	Supply (spaces)	Demand (spaces)	Surplus/Deficiency (spaces)	Adjusted Surplus/Deficiency (spaces)
Mason Street Warehouses	162	163	-1	-1
PX/Commissary	662	217	445	337
Gorgas Avenue Warehouses	156	274	-118	-10
Thornburg Area	281	439	-158	-158
North Halleck Area	111	52	59	59
Fort Scott – Rod Road	15	15	0	0
Palace of Fine Arts	293	258	35	35
Total	1,680	1,418	262	262

Source: Parsons Brinckerhoff, Inc. September 2004.

Notes: The adjusted surplus/deficiency calculation assumes that a portion of parking surpluses in adjacent areas can be used for deficiencies: all of the spaces in the 108-space lot in the PX/Commissary area were applied to the Gorgas Warehouse deficiency.

The numbers in this table indicate that under the Replace and Widen Alternative – No Detour Option, there would be parking deficiencies in the following two areas: Mason Street Warehouses and Thornburg Area. In the remaining areas, estimated parking supply would meet or exceed estimated parking demand under the Replace and Widen Alternative – No Detour Option. Overall, there would be a parking surplus of 262 spaces in the study area.

If deficiencies area adjusted to reflect available surplus in adjacent areas, then the deficiency in the Gorgas Avenue warehouse area would be reduced to ten spaces. A deficiency of 158 spaces would remain in the Thornburg Area.

Table 4-24 compares the parking surpluses or deficiencies by area identified for the Replace and Widen Alternative – No Detour Option with 2030 No-Build conditions. In the Mason Street Warehouses area, there would be a parking deficiency of one space under the Replace and Widen Alternative – No Detour Option (compared to a parking surplus of two spaces under 2030 No-Build conditions). Therefore, total unmet demand due to the Replace and Widen Alternative – No Detour Option would be one space.

**TABLE 4-24
ESTIMATED UNMET DEMAND DUE TO THE REPLACE AND WIDEN ALTERNATIVE – NO DETOUR
OPTION (2030)**

Area	Replace and Widen – No Detour Option Surplus/Deficiency (spaces)	2030 No-Build Surplus/Deficiency (spaces)	Unmet Demand due to Replace and Widen – No Detour Option (spaces)
Mason Street Warehouses	-1	2	-1
PX/Commissary	337	478	0
Gorgas Avenue Warehouses	-10	-76	0
Thornburg Area	-158	-158	0
North Halleck Area	59	59	0
Fort Scott – Rod Road	0	0	0
Palace of Fine Arts	35	0	0
Total	262	305	-1

Source: Parsons Brinckerhoff, Inc. September 2004.

Mitigation

Mitigation would be required to replace the one space that would be lost in the Mason Street Warehouses area with the Replace and Widen Area – No Detour Option.

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 are and in other nearby areas.

It is anticipated that the additional 35 spaces provided by the project in the Palace of Fine Arts area would be available to meet the parking shortfall identified for the Mason Street Warehouses area.

4.3.2 Parkway Alternative

As discussed in Section 4.2.2, the Parkway Alternative has two design options for local access to the Presidio: Diamond Option and Circle Drive Option. For both design options, the anticipated parking supply in the study area would be the same under 2030 conditions. However, the parking demand under Diamond Option would slightly greater since Building 1151 (in the Gorgas Warehouses area) would be retained, whereas this building would be removed under the Circle Drive Option. The parking demand under the Diamond Option, which includes Building 1151, is evaluated in the 2030 analysis since it is more conservative.

Supply

The construction of the Parkway Alternative would result in an overall reduction in parking supply of 386 spaces from No-Build conditions (Table 4-25). Most of these spaces would be lost in the lot east of Building 610 which serves the PX/Commissary area, the lot northeast of Building 1029 serving the Swords to Plowshares area, and the parking areas serving the North Halleck Area. In addition, approximately three spaces would be removed due to the project in the Rod Road area. Parking areas displaced in the Gorgas Warehouse area and at the Palace of Fine Arts would be replaced with new surface parking and underground parking garage in the immediate vicinity. About 1,337 spaces would remain in this study area during construction.

The underground parking garage is assumed to have, at a minimum, 258 parking spaces to replace the parking lost in the surface lot. Table 4-25 assumes that there is no net loss of parking under 2030 conditions with the Parkway Alternative in the Palace of Fine Arts area.

**TABLE 4-25
FUTURE SUPPLY BY AREA FOR PARKWAY ALTERNATIVE (2030)**

Area	Future No-Build Supply (spaces) [from Table 4-1]	Parkway Alternative (spaces)	Change in Supply (spaces)
Mason Street Warehouses	165	165	0
PX/Commissary	695	538	-157
Gorgas Avenue Warehouses	198	198	0
Thornburg Area	281	166	-115
North Halleck Area	111	0	-111
Fort Scott – Rod Road	15	12	-3
Palace of Fine Arts	258	258	0
Total	1,723	1,337	-386

Source: Parsons Brinckerhoff, Inc. September 2004.

Demand

Under Parkway Alternative conditions, there would be a reduction in the average weekday parking demand of about 104 parking spaces. The decrease in demand would occur in the PX/Commissary and North Halleck areas. Buildings 605, 606, 1158 and all buildings except 201 would be removed in the North Halleck Area. The overall demand for the study area would 1,314 parking spaces.

**TABLE 4-26
FUTURE AVERAGE WEEKDAY PARKING DEMAND BY AREA FOR THE PARKWAY ALTERNATIVE
(2030)**

Area	Future No-Build Demand (spaces) [from Table 4-2]	Parkway Alternative Demand (spaces)	Change in Demand (spaces)
Mason Street Warehouses	163	163	0
PX/Commissary	217	149	-68
Gorgas Avenue Warehouses	274	274	0
Thornburg Area	439	439	0
North Halleck Area	52	16	-36
Fort Scott – Rod Road	15	15	0
Palace of Fine Arts	258	258	0
Total	1,418	1,314	-104

Source: Parsons Brinckerhoff, Inc. September 2004.

Impacts

Table 4-27 shows a comparison of estimated parking supply and demand under the Parkway Alternative in 2030.

**TABLE 4-27
SUPPLY AND DEMAND COMPARISON BY AREA FOR PARKWAY ALTERNATIVE (2030)**

Area	Supply (spaces)	Demand (spaces)	Surplus/Deficiency (spaces)	Adjusted Surplus/Deficiency (spaces)
Mason Street Warehouses	165	163	2	2
PX/Commissary	538	149	389	281
Gorgas Avenue Warehouses	198	274	-76	0
Thornburg Area	166	439	-273	-241
North Halleck Area	0	16	-16	-16
Fort Scott – Rod Road	12	15	-3	-3
Palace of Fine Arts	258	258	0	0
Total	1,337	1,314	23	23

Source: Parsons Brinckerhoff, Inc. September 2004.

Notes: The adjusted surplus/deficiency calculation assumes that a portion of parking surpluses in adjacent areas can be used for deficiencies: 76 spaces of the 108-space parking lot in the PX/Commissary area were applied to the Gorgas Warehouses deficiency and 32 spaces were applied to the Thornburg area deficiency.

The numbers in this table indicate that under the Parkway Alternative, there would be parking deficiencies in the following three areas: Thornburg Area, North Halleck Area, and Fort Scott – Rod Road. In the remaining areas, estimated parking supply would meet or exceed estimated parking demand under the Parkway Alternative. Overall, there would be a parking surplus of 23 spaces in the study area.

If deficiencies were adjusted to reflect available surpluses in adjacent areas, then the deficiency in the Gorgas Avenue Warehouses area would be reduced to zero and the deficiency in the Thornburg area would be reduced to 241 spaces.

Table 4-28 compares the parking surpluses or deficiencies by area identified for the Parkway Alternative with 2030 No-Build conditions. The Thornburg area would experience unmet demand beyond that of No-Build conditions of 115 spaces. In the Fort Scott – Rod Road area, the parking deficiency would change from two spaces under No-Build conditions to five spaces under the Parkway Alternative, for an additional unmet demand of three spaces. Overall, unmet demand due to the Parkway Alternative would be a total of 56 spaces.

**TABLE 4-28
ESTIMATED UNMET DEMAND DUE TO THE PARKWAY ALTERNATIVE (2030)**

Area	Parkway Alternative Surplus/Deficiency (spaces)	2030 No-Build Surplus/Deficiency (spaces)	Unmet Demand due to Parkway Alternative (spaces)
Mason Street Warehouses	2	2	0
PX/Commissary	281	370	0
Gorgas Avenue Warehouses	0	0	0
Thornburg Area	-241	-126	-115
North Halleck Area	-16	59	-16
Fort Scott – Rod Road	-3	0	-3
Palace of Fine Arts	0	0	0
Total	23	305	-134

Source: Parsons Brinckerhoff, Inc. September 2004.

Mitigation

Mitigation would be required to replace the 115 parking spaces that would be lost in the Thornburg Area, the 16 spaces that would be lost in the North Halleck Area and the three spaces that would be lost in the Rod Road area with the Parkway Alternative.

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.

In the Rod Road area, additional parking would be provided by extending the existing parking lot on Rod Road to the north, to replace the parking spaces removed by the project.

The parking lost in the North Halleck and Thornburg areas could be replaced by expanding the underground parking garage that has been proposed for the Palace of Fine Arts area to accommodate these deficiencies. Planning for this garage is still at the conceptual stage and further analysis would be required to determine the number of parking spaces that would be feasible for this site.

SECTION 5: CONCLUSIONS/COMPARISONS

Tables 5-1 and 5-2 summarize the estimated parking supply and demand under existing and future conditions for each alternative. Although there would be localized parking impacts in specific areas within the study area, overall parking supply exceeds parking demand under 2010 and 2030 future conditions for each alternative. In areas where parking impacts have been identified, parking deficiencies beyond those identified under the No-Build conditions have been specified. A comparison of parking impacts for each alternative is provided below and summarized in Tables 5-3 and 5-4. Table 5-5 summarizes the net demand that would not be met in each alternative.

Under 2010 construction conditions, the Replace and Widen Alternative – Detour Option would result in an unmet demand (net loss) over No-Build conditions of 156 spaces in the Gorgas Avenue Warehouses area, the Replace and Widen Alternative – No Detour Option would result in a total unmet demand of 473 spaces in the Gorgas Warehouses and Palace of Fine Arts areas, and the Parkway Alternative would result in a total unmet demand of 768 spaces in the PX/Commissary, Gorgas Warehouses, Rod Road, and Palace of Fine Arts areas.

To meet this unmet demand, the availability of parking 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 for 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.

Parking shortfalls identified during construction conditions (2010 conditions) for the project alternatives can generally be addressed through the use of surplus parking in adjacent areas and overall management of parking within the Presidio, consistent with the PTMP. For both the Replace and Widen – No Detour Option and the Parkway Alternative, parking displaced at the Palace of Fine Arts area, the Parade Grounds may be a candidate location additional bus staging and visitor parking. A shuttle would be provided between the Parade Grounds lot and the Palace of Fine Arts area for visitors. The Parkway Alternative would also require extension of existing parking in the Rod Road area to replace three parking spaces.

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

Management of the study areas parking facilities would include providing proper wayfinding signage and enforcement especially to those areas adjacent to the Presidio. Signage and information should be provided directing motorists of the available parking facilities and prohibited areas. This would especially be needed during construction to inform the public of any parking facility and access closures due to the construction activities (this would be part to the Transportation Management Plan [TMP]). Signage and enforcement would assist in minimizing any Presidio spill over parking impacts to the Yacht Club and Marina areas and facilities adjacent to Marina Boulevard.

Due to the dynamic nature of the Presidio land use, quantifying the available parking supply and expected parking demand is a speculative exercise. Changes and variations to current land uses and expectations may occur that could have noticeable impacts on this parking assessment. Unfortunately, these changes are unknown and it has been proposed that the Parking Impact Analysis be updated on a regular basis to include

updated uses and modified proposals for better assessment and more effective use of the Presidio parking facilities.

Overall, the parking impact under the 2030 project conditions would be considerably less than during the 2010 construction conditions. No long-term parking impact was identified for the Replace and Widen Alternative – No Detour Option; and the majority of parking that would be temporarily displaced for the Replace and Widen – No Detour Option and Parkway Alternative would be restored under the 2030 project conditions. The remaining parking shortfalls identified for these alternatives would be addressed through the use of surplus parking in adjacent areas and overall management of parking within the Presidio, consistent with the PTMP.

**TABLE 5-1
PARKING SUPPLY BY ALTERNATIVE**

Alternative	Year	Crissy Field - Mason Ware-Houses	Crissy Field - PX/ Commis-sary	Letterman - Gorgas Ware-houses	Letterman - Thornburg Area	North Halleck Area	Fort Scott - Rod Road	Palace of Fine Arts	TOTAL
Existing	2003	165	695	198	281	111	15	258	1,723
Future No-Build	2010	165	695	198	281	111	15	258	1,723
	2030	165	695	198	281	111	15	258	1,723
Replace & Widen Alternative Detour Option	2010	56	238	60	281	101	15	258	1,009
	2030	165	662	178	281	111	15	258	1,670
Replace & Widen Alternative No Detour Option	2010	152	46	60	281	85	15	153	792
	2030	162	662	156	281	111	15	293	1,680
Parkway Alternative	2010	165	3	28	151	0	12	0	359
	2030	165	538	198	166	0	12	258	1,337

Source: Parsons Brinckerhoff Quade & Douglas, Inc., September 2004.

**TABLE 5-2
PARKING DEMAND BY ALTERNATIVE**

Alternative	Year	Crissy Field - Mason Ware-Houses	Crissy Field - PX/ Commis-sary	Letterman - Gorgas Ware-houses	Letterman - Thornburg Area	North Halleck Area	Fort Scott - Rod Road	Palace of Fine Arts	TOTAL
Existing	2003	62	138	188	135	55	15	258	851
Future No-Build	2010	111	188	336	276	67	15	258	1,251
	2030	163	217	274	439	52	15	258	1,418
Replace & Widen Alternative Detour Option	2010	44	16	336	276	67	15	258	1,012
	2030	163	152	274	439	52	15	258	1,353
Replace & Widen Alternative No Detour Option	2010	111	188	327	276	67	15	258	1,242
	2030	163	217	274	439	52	15	258	1,418
Parkway Alternative	2010	111	188	336	276	67	15	258	1,251
	2030	163	149	274	439	16	15	258	1,314

Source: Parsons Brinckerhoff Quade & Douglas, Inc., September 2004.

**TABLE 5-3
OVERALL PARKING DEMAND AND SUPPLY COMPARISON- 2010**

Area	Alternative															
	No Build				Replace and Widen Alternative - Detour Option				Replace and Widen Alternative - No Detour Option				Parkway Alternative			
	Supply	Demand	Percent Difference	Surplus/Deficiency	Supply	Demand	Percent Difference	Surplus/Deficiency	Supply	Demand	Percent Difference	Surplus/Deficiency	Supply	Demand	Percent Difference	Surplus/Deficiency
Crissy Field - Mason St Warehouses	165	111	-49%	54	56	44	-27%	12	152	111	-37%	41	165	111	-49%	54
Crissy Field - PX/ Commissary	695	188	-270%	507	238	16	-1388%	222	46	188	76%	-142	253	145	-74%	108
Letterman - Gorgas Warehouses	198	336	41%	-138	60	336	82%	-276	60	327	82%	-267	28	327	91%	-299
Letterman - Thornburg Area	281	276	-2%	5	281	276	-2%	5	281	276	-2%	5	106	251	58%	-145
Main Post - North Halleck Area	111	67	-66%	44	101	67	-51%	34	85	67	-27%	18	0	0	0	0
Fort Scott - Rod Road	15	15	0%	0	15	15	0%	0	15	15	0%	0	12	15	20%	-3
Palace of Fine Arts	258	258	0%	0	258	258	0%	0	153	258	41%	-105	0	258	100%	-258
Total	1,723	1,251		472	1,009	1,012		-3	792	1,242		-450	564	1,107		-543

Source: Parsons Brinckerhoff, September 2004.

**TABLE 5-4
OVERALL PARKING DEMAND AND SUPPLY COMPARISON- 2030**

Area	Alternative															
	No Build				Replace and Widen Alternative - Detour Option				Replace and Widen Alternative - No Detour Option				Parkway Alternative			
	Supply	Demand	Percent Difference	Surplu s/ Deficie ncy	Suppl y	Dema nd	Perce nt Differe nce	Surplu s/ Deficie ncy	Suppl y	Dema nd	Perce nt Differe nce	Surplu s/ Deficie ncy	Suppl y	Dema nd	Perce nt Differe nce	Surplu s/ Deficie ncy
Crissy Field - Mason St Warehouses	165	163	-1%	2	165	163	-1%	2	162	163	1%	-1	165	163	-1%	2
Crissy Field - PX/ Commissary	695	217	-220%	478	662	152	-336%	510	662	217	-205%	445	538	149	-261%	389
Letterman - Gorgas Warehouses	198	274	28%	-76	178	274	35%	-96	156	274	43%	-118	198	274	28%	-76
Letterman - Thornburg Area	281	439	36%	-158	281	439	36%	-158	281	439	36%	-158	166	439	62%	-273
Main Post - North Halleck Area	111	52	-113%	59	111	52	-113%	59	111	52	-113%	59	0	16	100%	-16
Fort Scott - Rod Road	15	15	0%	0	15	15	0%	0	15	15	0%	0	12	15	20%	-3
Palace of Fine Arts	258	258	0%	0	258	258	0%	0	293	258	-14%	35	258	258	0%	0
Total	1,723	1,418		305	1,670	1,353		317	1,680	1,418		262	1,337	1,314		23

Source: Parsons Brinckerhoff, September 2004.

**TABLE 5-5
SUMMARY OF UNMET DEMAND BY ALTERNATIVE – 2010 AND 2030**

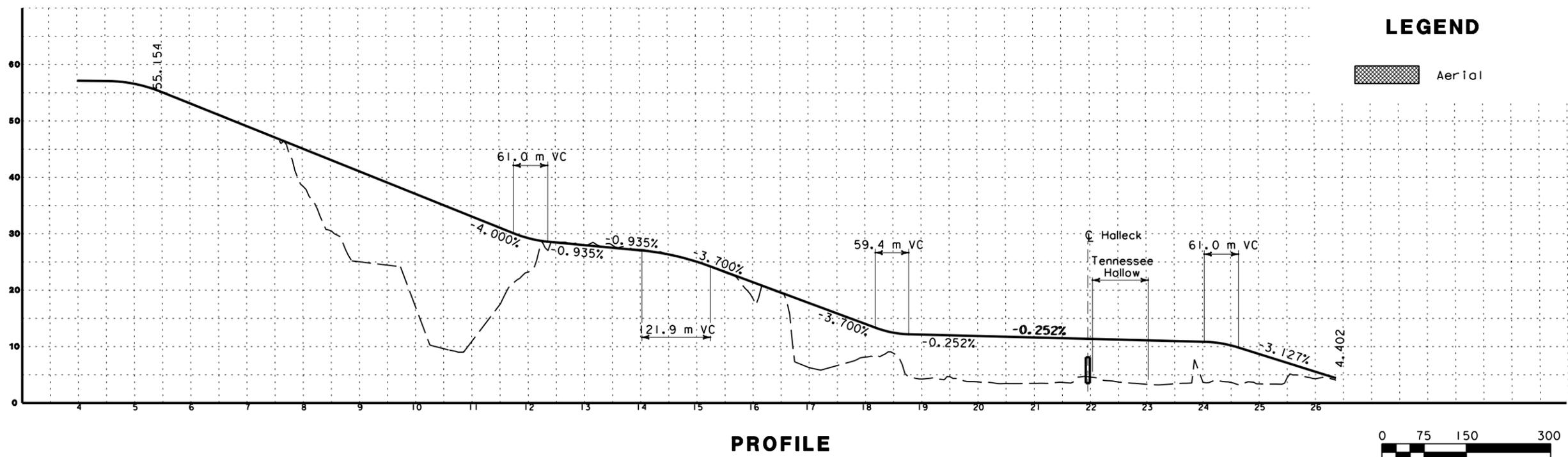
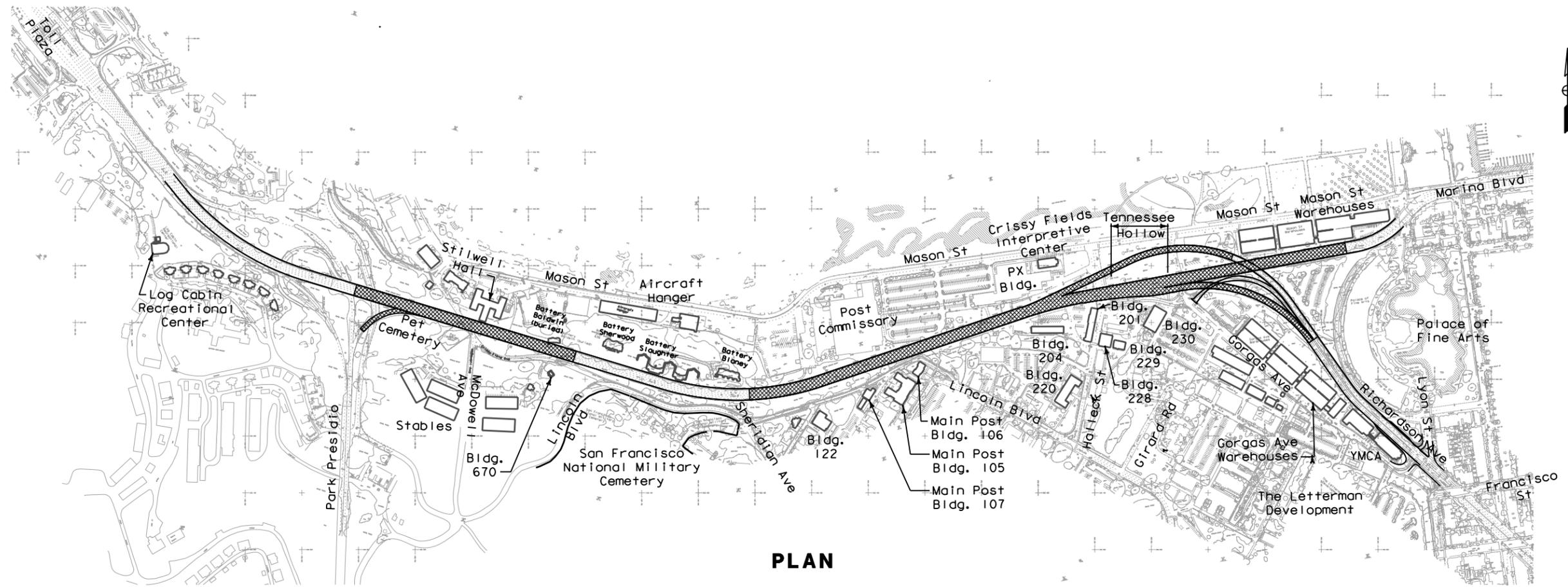
Area	Alternative					
	Replace and Widen Alternative - Detour Option		Replace and Widen Alternative - No Detour Option		Parkway Alternative	
	2010	2030	2010	2030	2010	2030
Crissy Field - Mason St Warehouses	0	0	0	-1	0	0
Crissy Field - PX/Commissary	0	0	-142	0	-142	0
Letterman - Gorgas Warehouses	-156	0	-226	0	-245	0
Letterman - Thornburg Area	0	-20	0	0	-120	-115
North Halleck Area	0	0	0	0	0	-16
Fort Scott - Rod Road	0	0	0	0	-3	-3
Palace of Fine Arts	0	0	-105	0	-258	0
Total	-156	-20	-473	-1	-768	-234

Source: Parsons Brinckerhoff, September 2004.

APPENDIX A

PROJECT DESCRIPTION DETAILED FIGURES

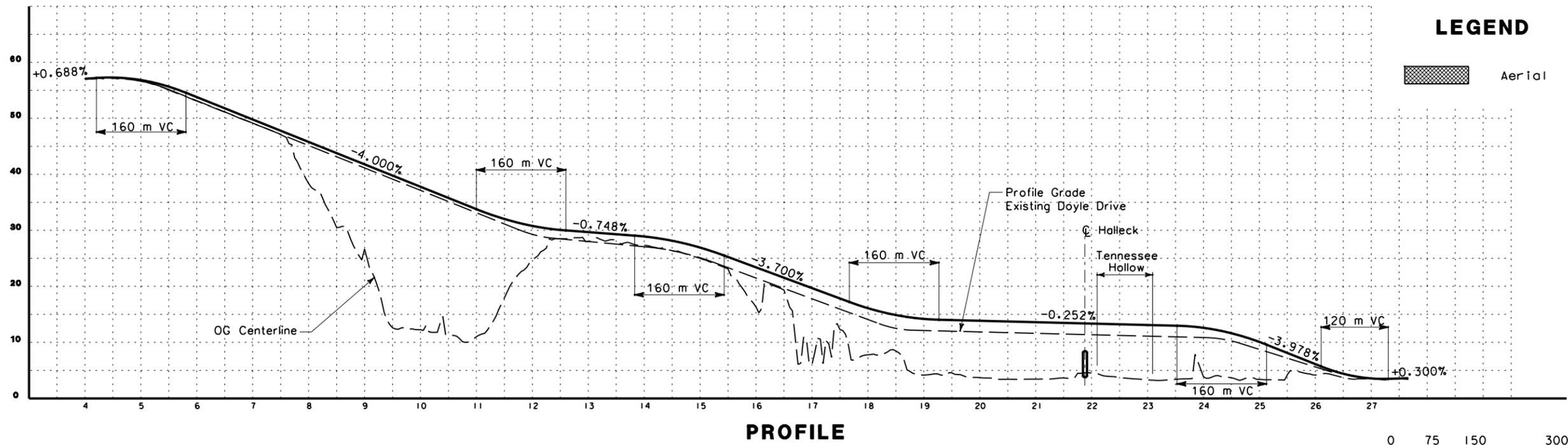
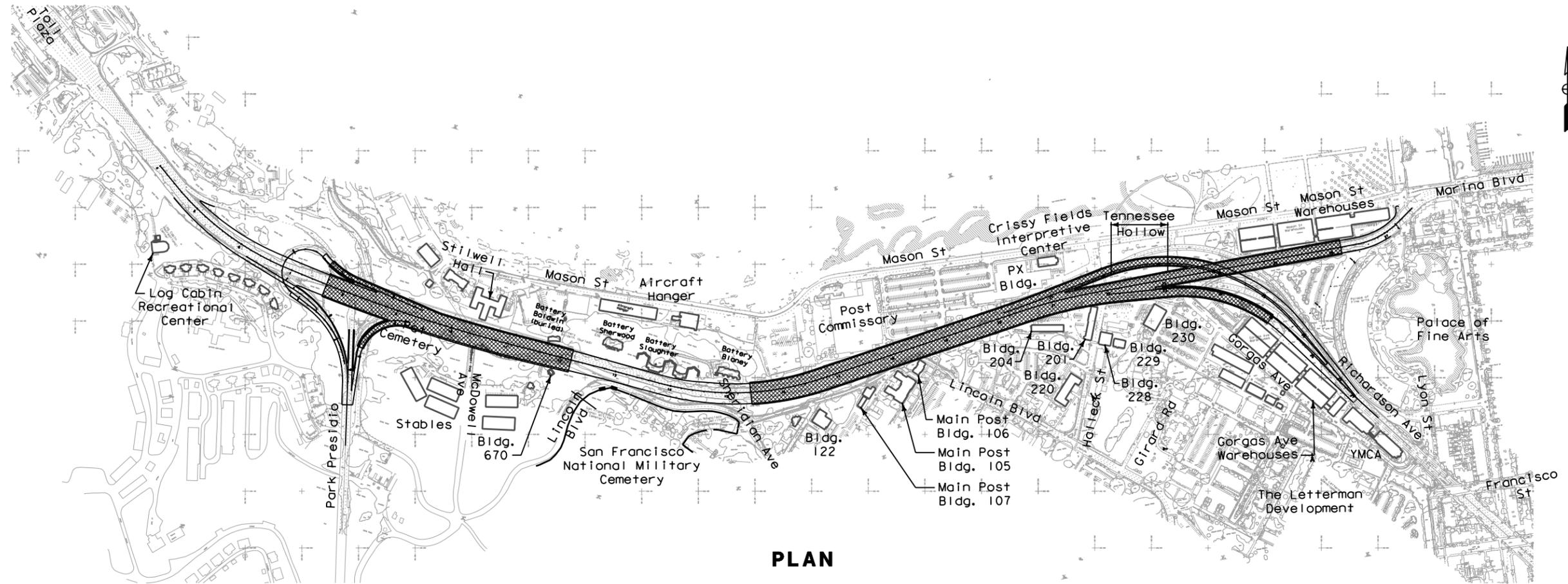
1. No Build



07-shom
 7/13/2004
 t:\13145\ms\dgn\vb-1117.dgn



2a. Replace and Widen - No Detour



LEGEND

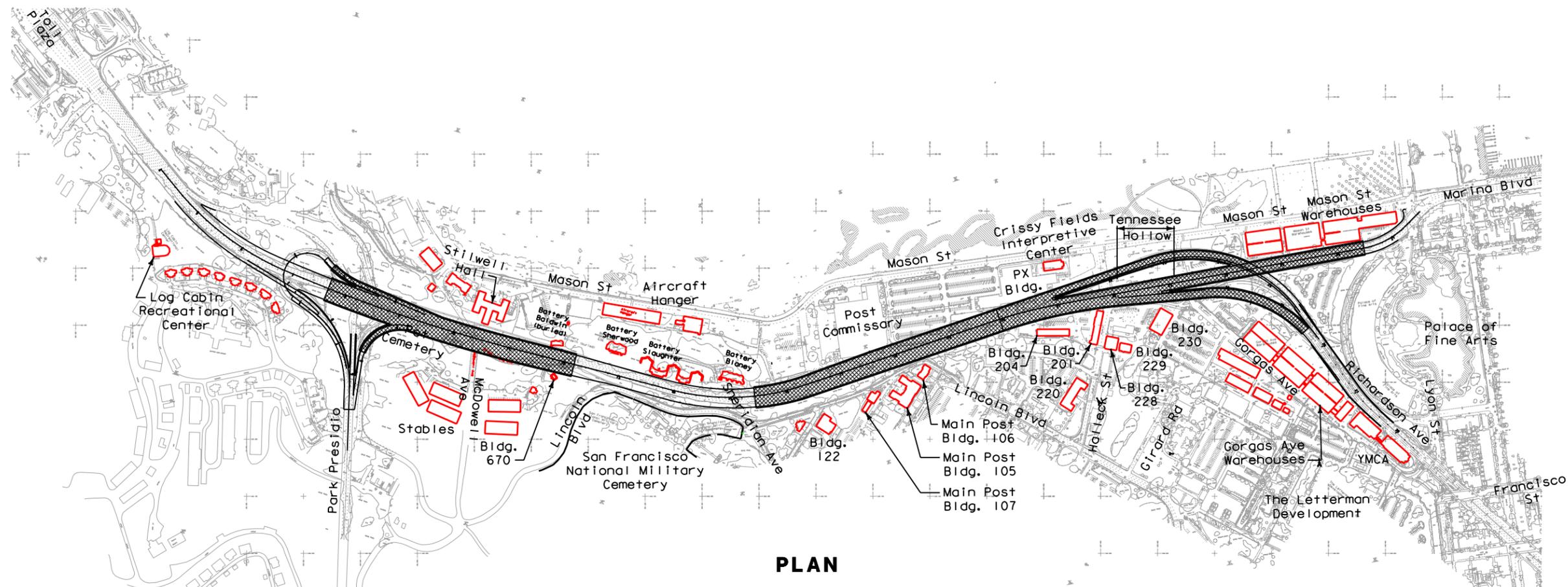
Aerial



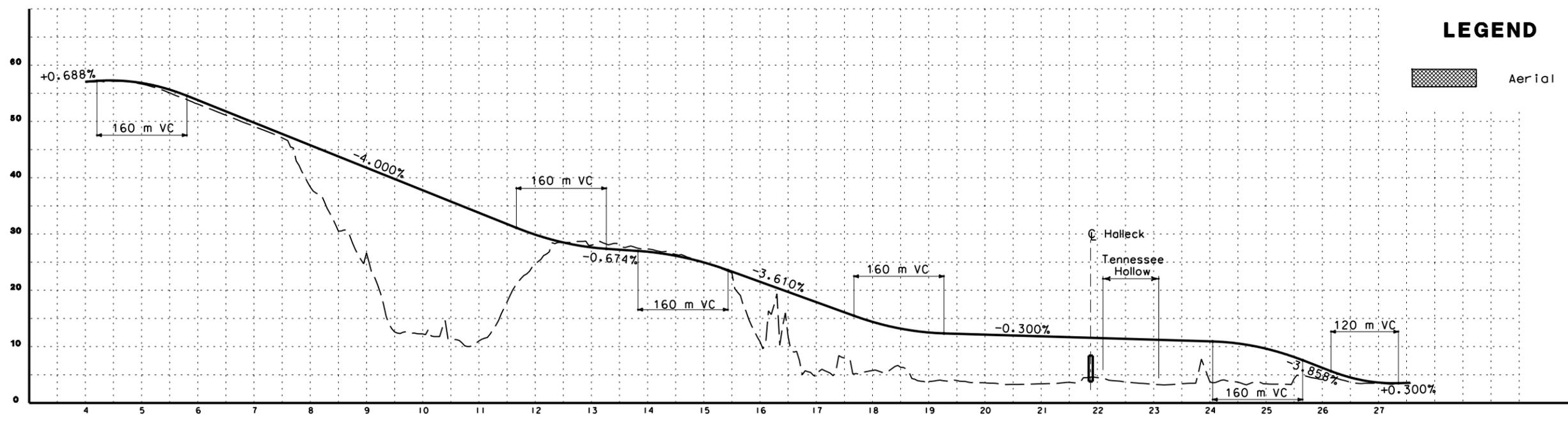
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2. Replace and Widen



PLAN

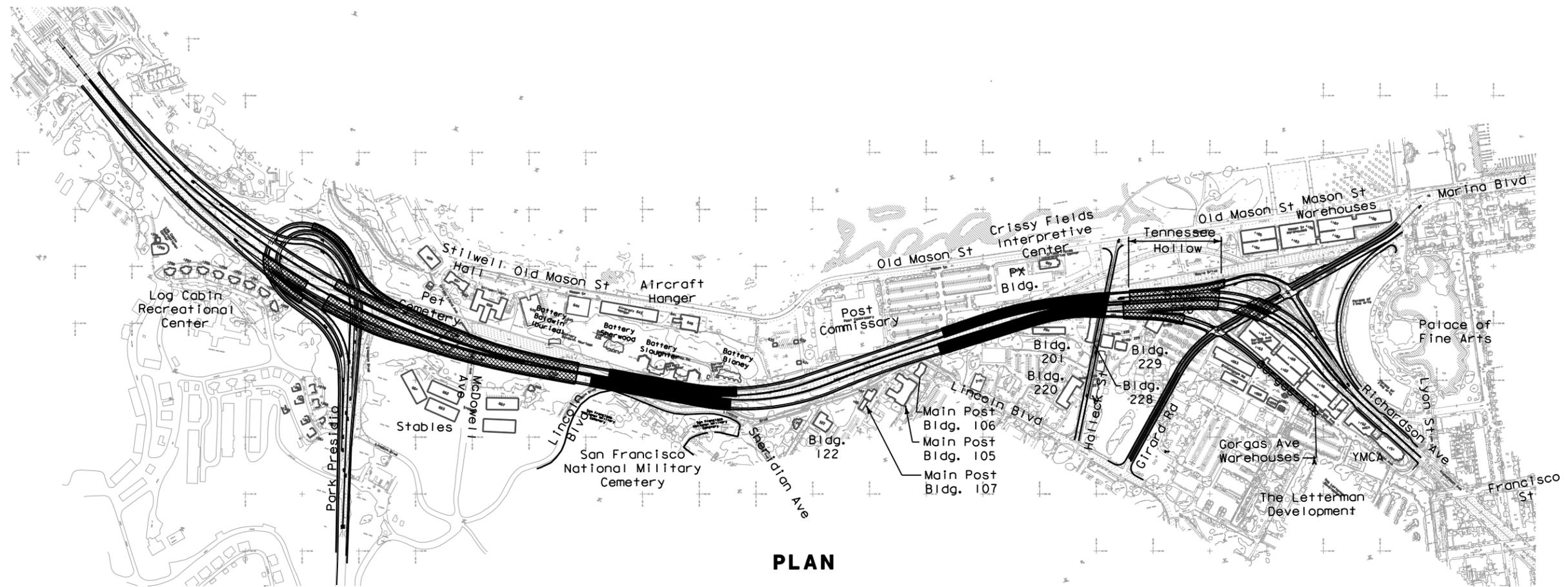


PROFILE

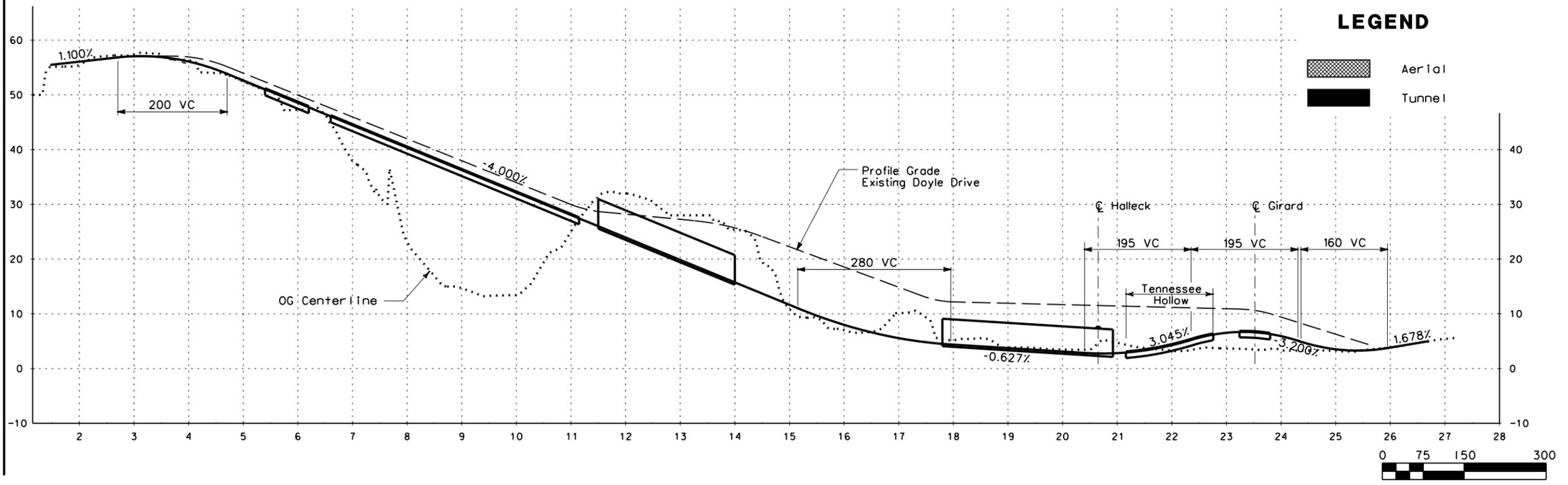
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5. Presidio Parkway

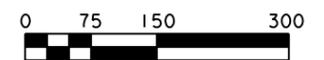


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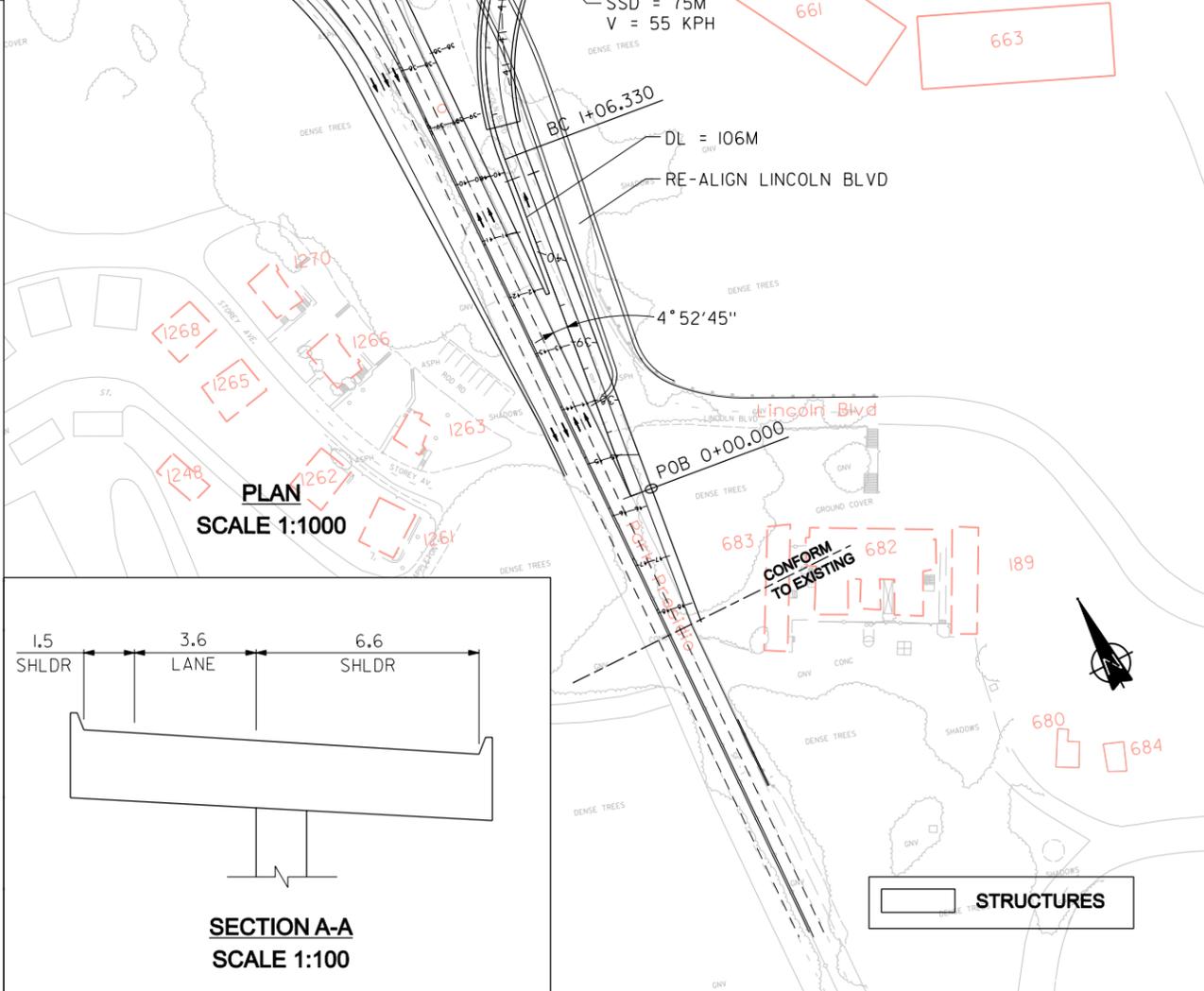
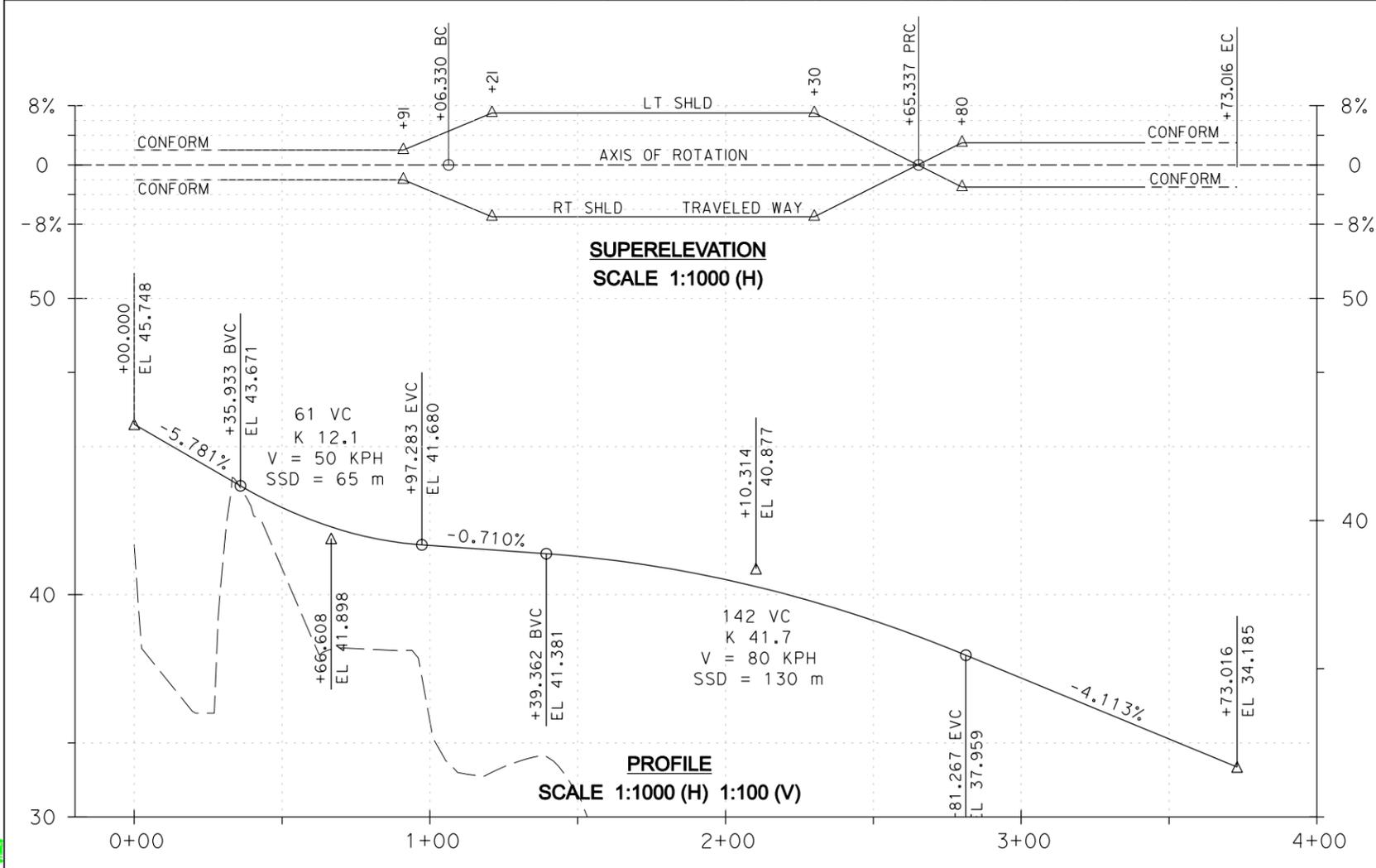
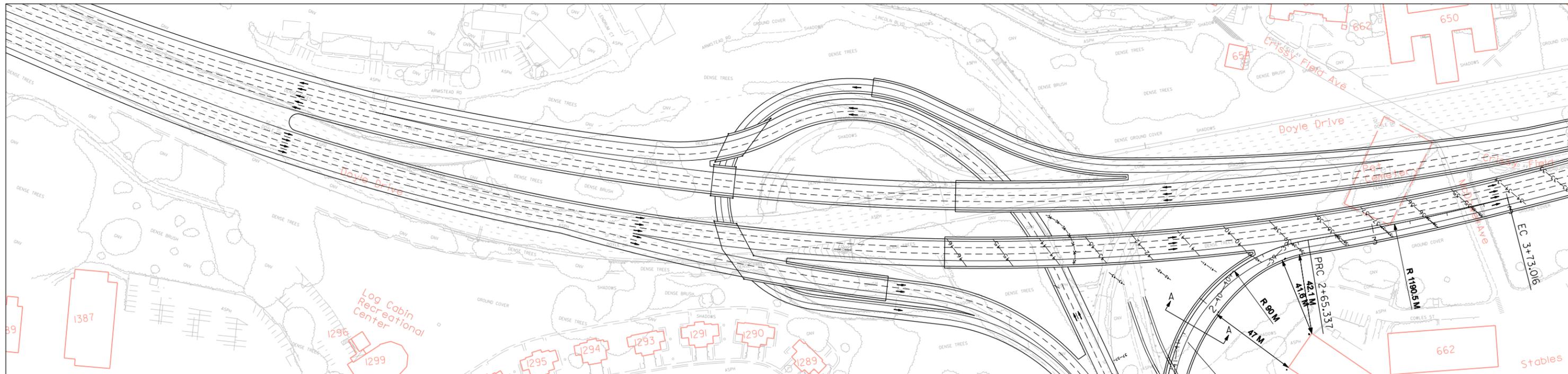
LEGEND

-  Aerial
-  Tunnel

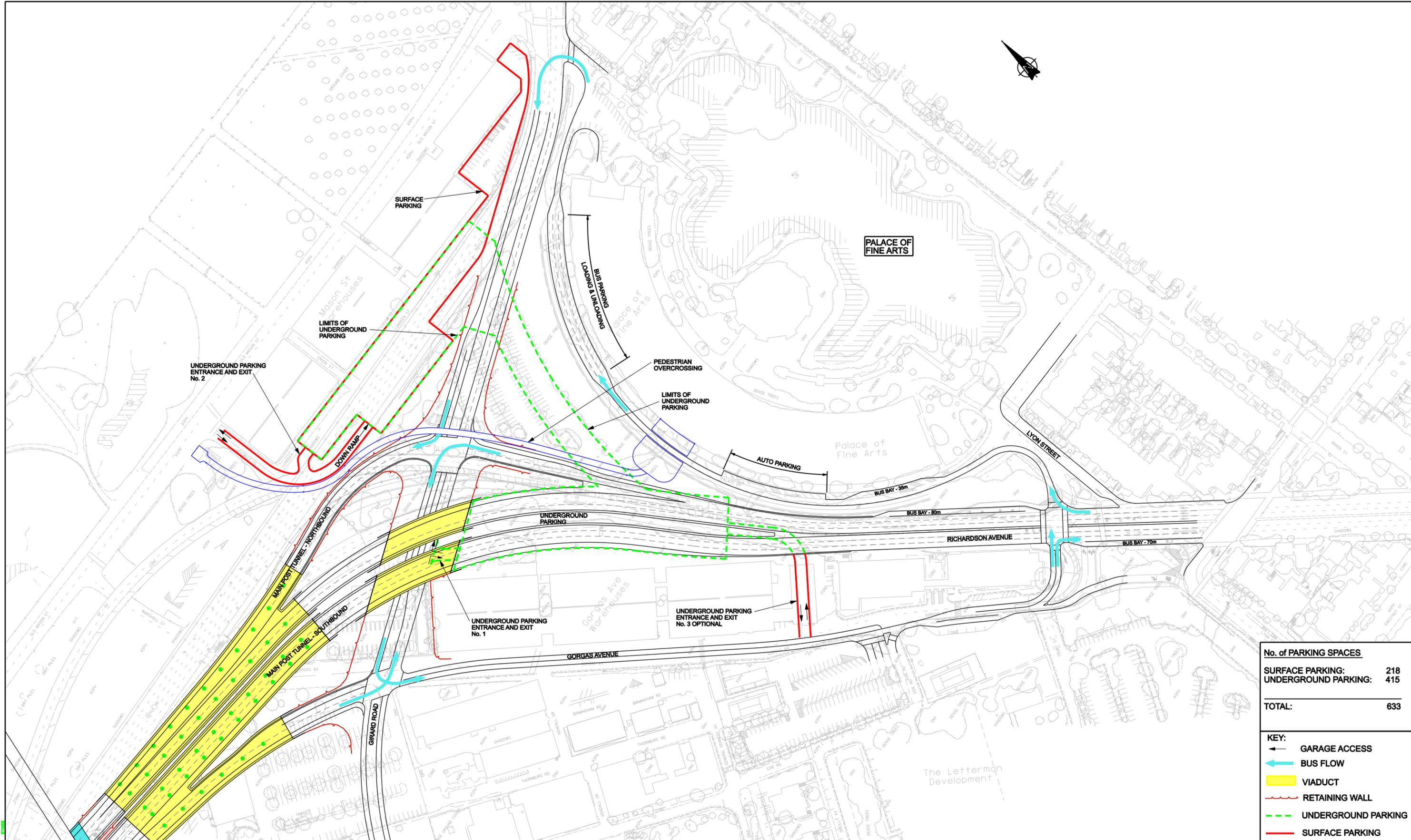


#USER
#DATE
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Job Title ALTERNATIVE 5 PRESIDIO PARKWAY					Drawing Title OPTION 2: HOOK RAMP (WITH GEOMETRIC REFINEMENTS)					Scale: AS SHOWN File Name: Drawing Status: PERLIMINARY Job No: 130168-00 Drawing No: SFSK-054 Issue:				
Issue	Date	By	Chd	Appd										



No. of PARKING SPACES	
SURFACE PARKING:	218
UNDERGROUND PARKING:	415
TOTAL:	633

KEY:	
	GARAGE ACCESS
	BUS FLOW
	VIADUCT
	RETAINING WALL
	UNDERGROUND PARKING
	SURFACE PARKING

NOTES.
 1. AUTO PARKING ESTIMATE IS BASED ON THE GUIDLINE OF 32.5 m2 per VEHICLE.
 2. VEHICLE CLEARANCE:

 1m Structure
 3m Min

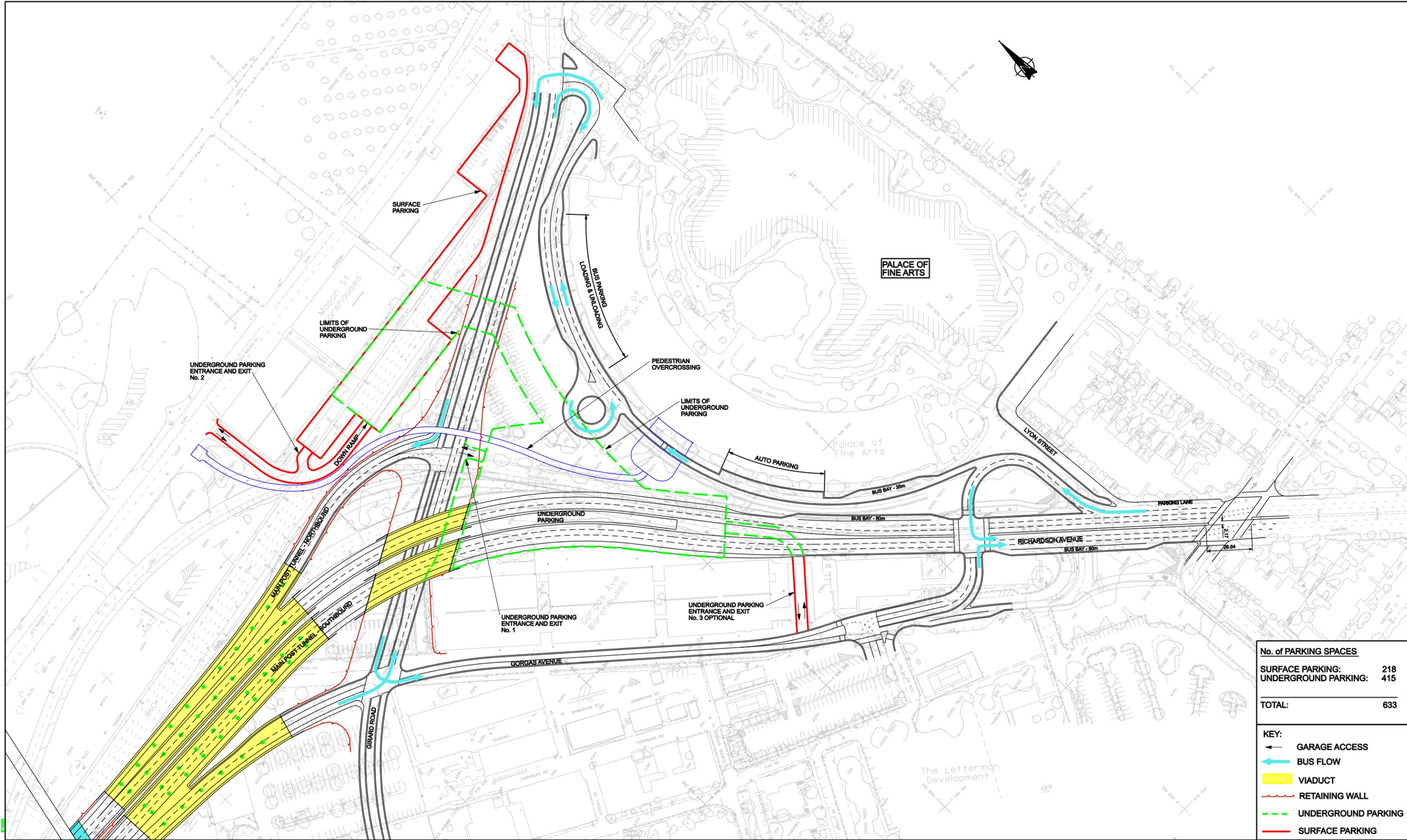


Issue	Date	By	Chkd	Appd

Job Title
**ALTERNATIVE 5
 PRESIDIO PARKWAY**

Drawing Title
**LAYOUT PLAN
 DIAMOND OPTION
 EAST END
 PARKING & CIRCULATION**

Scale:	1:1000
File Name:	SFSK-052.DGN
Drawing Status:	DRAFT
Job No:	130168-00
Drawing No:	SFSK-052
Issue:	-



No. of PARKING SPACES	
SURFACE PARKING:	218
UNDERGROUND PARKING:	415
TOTAL:	633

KEY:	
	GARAGE ACCESS
	BUS FLOW
	VIADUCT
	RETAINING WALL
	UNDERGROUND PARKING
	SURFACE PARKING

NOTES:
 1. AUTO PARKING ESTIMATE IS BASED ON THE GUIDLINE OF 32.5 m² per VEHICLE.
 2. VEHICLE CLEARANCE:

 1m Structure
 3m Min

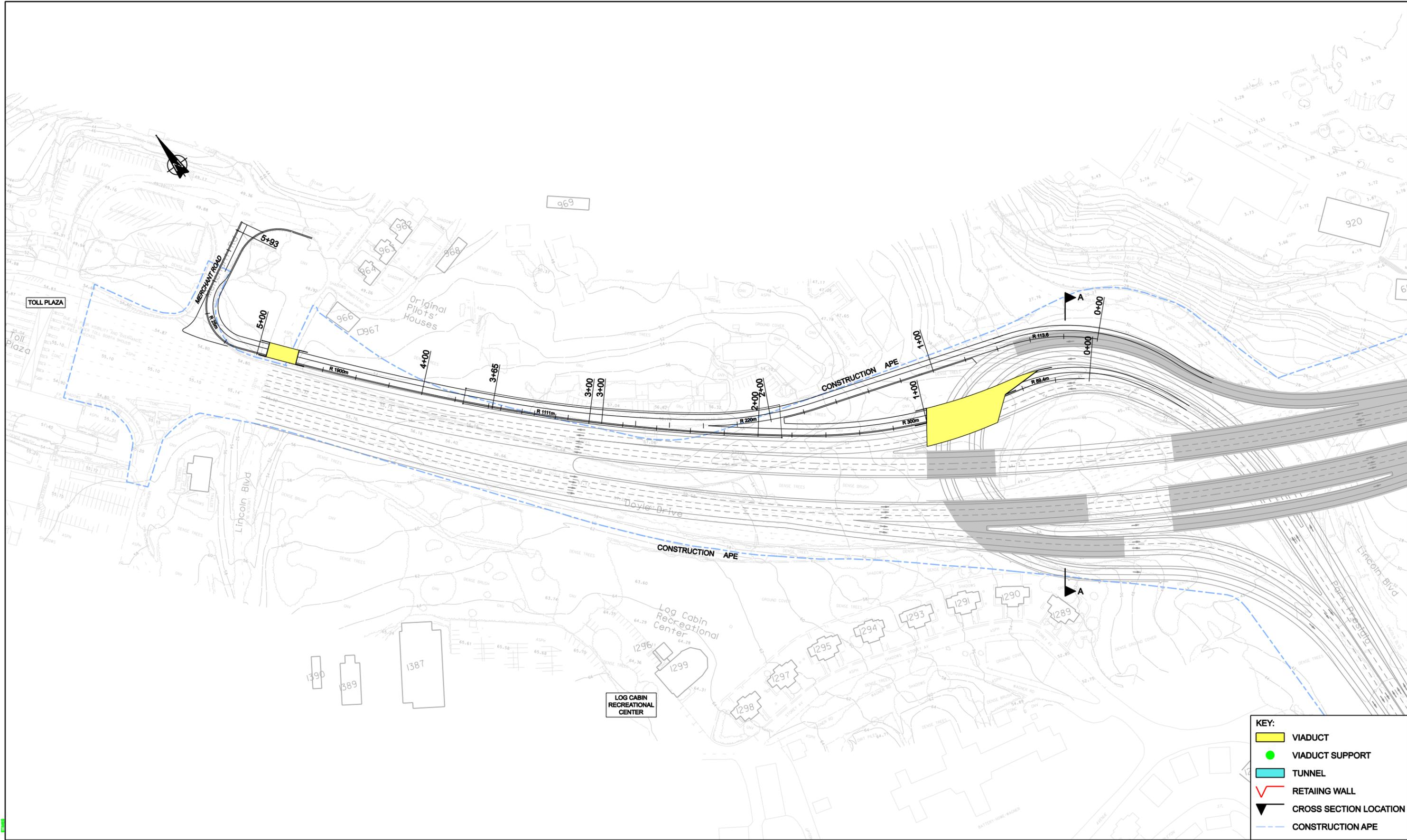


Issue	Date	By	Chk'd	App'd

Job Title
**ALTERNATIVE 5
 PRESIDIO PARKWAY**

Drawing Title
**LAYOUT PLAN
 CIRCLE DRIVE
 EAST END
 PARKING & CIRCULATION**

Scale:	1:1000
File Name:	SFSK-051.DGN
Drawing Status:	DRAFT
Job No:	130168-00
Drawing No:	SFSK-051
Issue:	-



KEY:

- VIADUCT
- VIADUCT SUPPORT
- TUNNEL
- RETAINING WALL
- CROSS SECTION LOCATION
- CONSTRUCTION APE



Job Title ALTERNATIVE 5 PRESIDIO PARKWAY					Drawing Title LAYOUT PLAN MERCHANT ROAD OFF-RAMP		Scale: 1:1000	
Issue Date By Check Appd					File Name SFSK-M01.DGN		Drawing Status DRAFT	
					Job No 130168-00		Drawing No SFSK-M01	
					Issue		-	

APPENDIX B

PARKING DEMAND CALCULATIONS

The parking demand calculations were provided by the Presidio Trust and reflect rates used in their Presidio Traffic Management Plan (PTMP). The following text was obtained from the PTMP Background Transportation Report and provided by the Presidio Trust. It provides information on the source of the parking demand rates:

“Parking demand for buildings in the Doyle Drive corridor consists of both long-term demand (i.e., employee and resident parking) and short-term demand (i.e. visitor parking). Long-term parking for non-housing land uses was estimated by determining the number of employees for each land use and applying the average mode split and vehicle occupancy from the trip generation estimates for both external and internal trips. Each employee vehicle trip was assumed to require one space per day. The parking demand for lodging was estimated as long-term only, with a rate of 1.0 spaces per room, which accounts for both employees and guests. A long-term rate of 1.5 spaces per dwelling unit was used for all housing components.

“Short-term parking was estimated based on the total daily visitor trips and the average turnover rate. A short-term parking turnover rate of 6.0 vehicles per space per day was applied to most land uses for all alternatives, with the exception of retail and cultural/educational uses for which a turnover rate of 10 vehicles per space per day was used, as well as conference uses for which a turnover rate of 3 vehicles per space per day was used. The parking demand rates shown in this appendix represent a combination of long-term and short-term demand and reflect the travel demand assumptions used in the transportation analysis for the Presidio Trust Management Plan EIS.”

**TABLE B-1
FUTURE PARKING DEMAND – NO-BUILD CONDITIONS**

Building	GSF	2010			2030		
		Use	Rate	Demand (spaces)	Use	Rate	Demand (spaces)
Crissy Field – Mason Warehouses							
1182	12,072	cult./ed. (artists studios)	1.36	16	Office	2.17	26
1183	12,862	cult./ed. (artists studios)	1.36	17	office	2.17	28
1184	12,112	cult./ed. (artists studios)	1.36	16	office	2.17	26
1185	13,600	cult./ed. (artists studios)	1.36	18	office	2.17	30
1186	12,630	industrial/warehouse	1.12	14	cult./ed.	1.36	17
1187	13,440	industrial/warehouse	1.12	15	cult./ed.	1.36	18
1188	13,520	industrial/warehouse	1.12	15	cult./ed.	1.36	18
TOTAL	90,236			111			163
Crissy Field – PX/ Commissary							
603	11,801	cult./ed.	1.36	16	cult./ed.	1.36	16
631	480	vacant	0	0	military	0	0
632	480	vacant	0	0	military	0	0
633	480	vacant	0	0	military	0	0
605	42,319	recreation	0.31	13	cult./ed.	1.36	58
606	7,416	retail	4.1	30	cult./ed.	1.36	10
610	92,722	warehouse retail	1.32	122	cult./ed.	1.36	126
653	5,413	warehouse retail	1.32	7	cult./ed.	1.36	7
TOTAL	161,111			188			217
Letterman – Gorgas Warehouses							
1151	11,907	fitness	5.2	62	fitness	5.2	62
1152	13,847	fitness	5.2	72	fitness	5.2	72
1158	4,164	office	2.17	9	vacant	0	0
1160	5,453	office	2.17	12	office	2.17	12
1161	12,000	office	2.17	26	office	2.17	26
1162	12,175	Fitness/office	2.17 & 5.2	45	office	2.17	26
1163	13,156	office	2.17	29	office	2.17	29
1167	12,095	office	2.17	26	cult./ed.	1.24	15
1169	13,117	office	2.17	28	cult./ed.	1.24	16
1170	12,596	office	2.17	27	cult./ed.	1.24	16
TOTAL	110,510			336			274
Letterman – Thornburg Area							
1029	100	dorm rooms	1	25	dorm rooms	1	100
1030	--	dorm rooms			dorm rooms		
1040	7,520	industrial/warehouse	0.99	7	industrial/warehouse	0.99	7
1063	28,797	industrial/warehouse	0.99	29	industrial/warehouse	0.99	29
1047	17,590	office	2.17	38	retail	3.97	70
1050	21,690	office	2.17	47	retail	3.97	86
1051	17,580	office	2.17	38	retail	3.97	70

Building	GSF	2010			2030		
		Use	Rate	Demand (spaces)	Use	Rate	Demand (spaces)
1059	3,672	office	2.17	8	retail	3.97	15
1060	14,030	office	2.17	30	office	2.17	30
1061	82	office	2.17	0	retail	3.97	0
1056	620	retail	3.97	2	retail	3.97	2
1062	12,700	retail	3.97	50	office	2.17	28
1076	390	retail	3.97	2	retail	3.97	2
TOTAL	124,671			276			439
Main Post – North Halleck Area							
205	121	industrial/warehouse	1.13	0	infrastructure	0.41	0
230	10,060	industrial/warehouse	1.13	11	n/a	0	0
231	3,842	industrial/warehouse	1.13	4	n/a	0	0
201	11,458	office	2.18	25	office	2.18	25
204	12,144	office	2.18	26	office	2.18	26
TOTAL	37,625			67			52
Fort Scott – Rod Road							
1263	10	1 bdrm du's	1.5	15	1 bdrm du's	1.5	15
1266	--	1 bdrm du's			1 bdrm du's		
1270	--	1 bdrm du's			1 bdrm du's		
				15			15
Palace of Fine Arts							
n/a	--	special use/museum		258	special use/museum		258

TOTAL	1,255	1,418
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Note: Buildings that are crossed-out would be lost due to the Doyle Drive Project; buildings identified as “vacant” are assumed to be vacant by the Presidio Trust.

**TABLE B-2
FUTURE PARKING DEMAND – REPLACE AND WIDEN ALTERNATIVE – DETOUR OPTION**

		REPLACE AND WIDEN – DETOUR OPTION					
Building	GSF	2010			2030		
		Use	Rate	Demand (spaces)	Use	Rate	Demand (spaces)
Crissy Field - Mason Street Warehouses							
1182	12,072	cult./ed. (artists-studios)	1.36	16	office	2.17	26
1183	12,862	cult./ed. (artists-studios)	1.36	17	office	2.17	28
1184	12,112	cult./ed. (artists-studios)	1.36	16	office	2.17	26
1185	13,600	cult./ed. (artists-studios)	1.36	18	office	2.17	30
1186	12,630	industrial/warehouse	1.12	14	cult./ed.	1.36	17
1187	13,440	industrial/warehouse	1.12	15	cult./ed.	1.36	18
1188	13,520	industrial/warehouse	1.12	15	cult./ed.	1.36	18
TOTAL	90,236			44			163
Crissy Field - PX/Commissary							
603	11,801	cult./ed.	1.36	16	cult./ed.	1.36	16
631	480	vacant	0	0	military	0	0
632	480	vacant	0	0	military	0	0
633	480	vacant	0	0	military	0	0
605	42,319	recreation	0.31	13	cult./ed.	1.36	58
606	7,416	retail	4.1	30	cult./ed.	1.36	10
610	92,722	warehouse retail	1.32	122	cult./ed.	1.36	126
653	5,413	warehouse retail	1.32	7	cult./ed.	1.36	7
TOTAL	161,111			16			152
Letterman - Gorgas Avenue Warehouses Area							
1151	11,907	fitness	5.2	62	fitness	5.2	62
1152	13,847	fitness	5.2	72	fitness	5.2	72
1158	4,164	office	2.17	9	vacant	0	0
1160	5,453	office	2.17	12	office	2.17	12
1161	12,000	office	2.17	26	office	2.17	26
1162	12,175	office	2.17 & 5.2	45	office	2.17	26
1163	13,156	office	2.17	29	office	2.17	29
1167	12,095	office	2.17	26	cult./ed.	1.24	15
1169	13,117	office	2.17	28	cult./ed.	1.24	16
1170	12,596	office	2.17	27	cult./ed.	1.24	16
TOTAL	110,510			336			274
Letterman - Thornburg Area							
1029	100	dorm rooms	1	25	dorm rooms	1	100
1030	--	dorm rooms			dorm rooms		
1040	7,520	industrial/warehouse	0.99	7	industrial/warehouse	0.99	7
1063	28,797	industrial/warehouse	0.99	29	industrial/warehouse	0.99	29
1047	17,590	office	2.17	38	retail	3.97	70
1050	21,690	office	2.17	47	retail	3.97	86
1051	17,580	office	2.17	38	retail	3.97	70

REPLACE AND WIDEN – DETOUR OPTION

Building	GSF	2010			2030		
		Use	Rate	Demand (spaces)	Use	Rate	Demand (spaces)
1059	3,672	office	2.17	8	retail	3.97	15
1060	14,030	office	2.17	30	office	2.17	30
1061	82	retail	2.17	0	vacant	3.97	0
1056	620	office	3.97	2	retail	3.97	2
1062	12,700	retail	3.97	50	office	2.17	28
1076	390	retail	3.97	2	vacant	3.97	2
TOTAL	124,671			276			439

North Halleck Area

205	121	industrial/warehouse	1.13	0	infrastructure	0.41	0
230	10,060	industrial/warehouse	1.13	11	vacant	0	0
231	3,842	industrial/warehouse	1.13	4	vacant	0	0
201	11,458	office	2.18	25	office	2.18	25
204	12,144	office	2.18	26	office	2.18	26
TOTAL	37,625			67			52

Fort Scott - Rod Road

1263	10	1 bdrm du's	1.5	15	1 bdrm du's	1.5	15
1266	--	1 bdrm du's			1 bdrm du's		
1270	--	1 bdrm du's			1 bdrm du's		
				15			15

Palace of Fine Arts

n/a	--	special use/museum		258	special use/museum		258
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TOTAL

1,014

1,353

Note: Buildings that are crossed-out would be lost due to the Doyle Drive Project; buildings identified as "vacant" are assumed to be vacant by the Presidio Trust.

**TABLE B-3
FUTURE PARKING DEMAND – REPLACE AND WIDEN ALTERNATIVE – NO DETOUR OPTION**

		REPLACE AND WIDEN – NO DETOUR OPTION					
Building	GSF	2010			2030		
		Use	Rate	Demand (spaces)	Use	Rate	Demand (spaces)
Crissy Field - Mason Street Warehouses							
1182	12,072	cult./ed. (artists studios)	1.36	16	office	2.17	26
1183	12,862	cult./ed. (artists studios)	1.36	17	office	2.17	28
1184	12,112	cult./ed. (artists studios)	1.36	16	office	2.17	26
1185	13,600	cult./ed. (artists studios)	1.36	18	office	2.17	30
1186	12,630	industrial/warehouse	1.12	14	cult./ed.	1.36	17
1187	13,440	industrial/warehouse	1.12	15	cult./ed.	1.36	18
1188	13,520	industrial/warehouse	1.12	15	cult./ed.	1.36	18
TOTAL	90,236			111			163
Crissy Field - PX/Commissary							
603	11,801	cult./ed.	1.36	16	cult./ed.	1.36	16
631	480	vacant	0	0	military	0	0
632	480	vacant	0	0	military	0	0
633	480	vacant	0	0	military	0	0
605	42,319	recreation	0.31	13	cult./ed.	1.36	58
606	7,416	retail	4.1	30	cult./ed.	1.36	10
610	92,722	warehouse retail	1.32	122	cult./ed.	1.36	126
653	5,413	warehouse retail	1.32	7	cult./ed.	1.36	7
TOTAL	161,111			188			217
Letterman - Gorgas Avenue Warehouses Area							
1151	11,907	fitness	5.2	62	fitness	5.2	62
1152	13,847	fitness	5.2	72	fitness	5.2	72
1158	4,164	office	2.17	9	vacant	0	0
1160	5,453	office	2.17	12	office	2.17	12
1161	12,000	office	2.17	26	office	2.17	26
1162	12,175	office	2.17 & 5.2	45	office	2.17	26
1163	13,156	office	2.17	29	office	2.17	29
1167	12,095	office	2.17	26	cult./ed.	1.24	15
1169	13,117	office	2.17	28	cult./ed.	1.24	16
1170	12,596	office	2.17	27	cult./ed.	1.24	16
TOTAL	110,510			327			274
Letterman - Thornburg Area							
1029	100	dorm rooms	1	25	dorm rooms	1	100
1030	--	dorm rooms			dorm rooms		
1040	7,520	industrial/warehouse	0.99	7	industrial/warehouse	0.99	7
1063	28,797	industrial/warehouse	0.99	29	industrial/warehouse	0.99	29
1047	17,590	office	2.17	38	retail	3.97	70
1050	21,690	office	2.17	47	retail	3.97	86
1051	17,580	office	2.17	38	retail	3.97	70

REPLACE AND WIDEN – NO DETOUR OPTION							
Building	GSF	2010			2030		
		Use	Rate	Demand (spaces)	Use	Rate	Demand (spaces)
1059	3,672	office	2.17	8	retail	3.97	15
1060	14,030	office	2.17	30	office	2.17	30
1061	82	retail	2.17	0	vacant	3.97	0
1056	620	office	3.97	2	retail	3.97	2
1062	12,700	retail	3.97	50	office	2.17	28
1076	390	retail	3.97	2	vacant	3.97	2
TOTAL	124,671			276			439
North Halleck Area							
205	121	industrial/warehouse	1.13	0	infrastructure	0.41	0
230	10,060	industrial/warehouse	1.13	11	vacant	0	0
231	3,842	industrial/warehouse	1.13	4	vacant	0	0
201	11,458	office	2.18	25	office	2.18	25
204	12,144	office	2.18	26	office	2.18	26
TOTAL	37,625			67			52
Fort Scott - Rod Road							
1263	10	1 bdrm du's	1.5	15	1 bdrm du's	1.5	15
1266	--	1 bdrm du's			1 bdrm du's		
1270	--	1 bdrm du's			1 bdrm du's		
				15			15
Palace of Fine Arts							
n/a	--	special use/museum		258	special use/museum		258
TOTAL				1,247	1,418		

Note: Buildings that are crossed-out would be lost due to the Doyle Drive Project; buildings identified as “vacant” are assumed to be vacant by the Presidio Trust.

**TABLE B-4
FUTURE PARKING DEMAND – PARKWAY ALTERNATIVE**

		PARKWAY ALTERNATIVE					
Building	GSF	2010			2030		
		Use	Rate	Demand (spaces)	Use	Rate	Demand (spaces)
Crissy Field - Mason Street Warehouses							
1182	12,072	cult./ed. (artists studios)	1.36	16	office	2.17	26
1183	12,862	cult./ed. (artists studios)	1.36	17	office	2.17	28
1184	12,112	cult./ed. (artists studios)	1.36	16	office	2.17	26
1185	13,600	cult./ed. (artists studios)	1.36	18	office	2.17	30
1186	12,630	industrial/warehouse	1.12	14	cult./ed.	1.36	17
1187	13,440	industrial/warehouse	1.12	15	cult./ed.	1.36	18
1188	13,520	industrial/warehouse	1.12	15	cult./ed.	1.36	18
TOTAL	90,236			111			163
Crissy Field - PX/Commissary							
603	11,801	cult./ed.	1.36	16	cult./ed.	1.36	16
631	480	vacant	0	0	military	0	0
632	480	vacant	0	0	military	0	0
633	480	vacant	0	0	military	0	0
605	42,319	recreation	0.34	13	cult./ed.	1.36	58
606	7,416	retail	4.4	30	cult./ed.	1.36	40
610	92,722	warehouse retail	1.32	122	cult./ed.	1.36	126
653	5,413	warehouse retail	1.32	7	cult./ed.	1.36	7
TOTAL	161,111			145			149
Letterman - Gorgas Avenue Warehouses Area							
*1151	11,907	fitness	5.2	62	fitness	5.2	62
1152	13,847	fitness	5.2	72	fitness	5.2	72
1158	4,164	office	2.17	9	vacant	0	0
1160	5,453	office	2.17	12	office	2.17	12
1161	12,000	office	2.17	26	office	2.17	26
1162	12,175	office	2.17 & 5.2	45	office	2.17	26
1163	13,156	office	2.17	29	office	2.17	29
1167	12,095	office	2.17	26	cult./ed.	1.24	15
1169	13,117	office	2.17	28	cult./ed.	1.24	16
1170	12,596	office	2.17	27	cult./ed.	1.24	16
TOTAL	110,510			327			274
Letterman - Thornburg Area							
1029	100	dorm rooms	1	25	Dorm rooms	1	100
1030	--	dorm rooms			Dorm rooms		
1040	7,520	industrial/warehouse	0.99	7	industrial/warehouse	0.99	7
1063	28,797	industrial/warehouse	0.99	29	industrial/warehouse	0.99	29
1047	17,590	office	2.17	38	retail	3.97	70
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PARKWAY ALTERNATIVE							
Building	GSF	2010			2030		
		Use	Rate	Demand (spaces)	Use	Rate	Demand (spaces)
1059	3,672	office	2.17	8	retail	3.97	15
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1061	82	retail	2.17	0	vacant	3.97	0
1056	620	office	3.97	2	retail	3.97	2
1062	12,700	retail	3.97	50	office	2.17	28
1076	390	retail	3.97	2	vacant	3.97	2
TOTAL	124,671			276			439
North Halleck Area							
205	121	industrial/warehouse	1.13	0	infrastructure	0.41	0
230	10,060	industrial/warehouse	1.13	11	vacant	0	0
231	3,842	industrial/warehouse	1.13	4	vacant	0	0
**201	11,458	office	2.18	25	office	2.18	16
204	12,144	office	2.18	26	office	2.18	26
TOTAL	37,625			0			16
Fort Scott - Rod Road							
1263	10	1 bdrm du's	1.5	15	1 bdrm du's	1.5	15
1266	--	1 bdrm du's			1 bdrm du's		
1270	--	1 bdrm du's			1 bdrm du's		
				15			15
Palace of Fine Arts							
n/a	--	special use/museum		258	special use/museum		258
TOTAL				1,247			1,314

Notes:

- * Building 1151 remains under Diamond option, but removed under Circle Drive option
- ** Building 201 – building area reduced to approximately 7,112 sq. ft. under 2030 conditions

Buildings that are crossed-out would be lost due to the Doyle Drive Project; buildings identified as “vacant” are assumed to be vacant by the Presidio Trust.

APPENDIX C
BUILDING REMOVAL & VACANCY
ASSUMPTIONS

Building	No Build		Replace & Widen – Detour Alternative		Replace & Widen – No Detour Alternative		Parkway Alternative	
	2010	2030	2010	2030	2010	2030	2010	2030
1030								
1040								
1063								
1047								
1050								
1051								
1059								
1060								
1061				Vacant		Vacant		Vacant
1056								
1062								
1076				Vacant		Vacant		Vacant
North Halleck Area								
205							Removed	Removed
230		Vacant		Vacant		Vacant	Removed	Vacant/ removed
231		Vacant		Vacant		vacant	Removed	Vacant/ removed
201							Removed	
204							Removed	Removed
Fort Scott – Rod Road Area								
1263								
1266								
1270								
Palace of Fine Arts								

Source: Parsons Brinckerhoff and the Presidio Trust, September 2004.

Notes: Denoting a building as “vacant” is based on building use assumptions made by the Presidio Trust. The identification of buildings for removal was based on the construction staging plans developed for the Doyle Drive project alternatives by Parsons Brinckerhoff. All other buildings would be occupied as identified in Appendix B during construction and/or permanently.