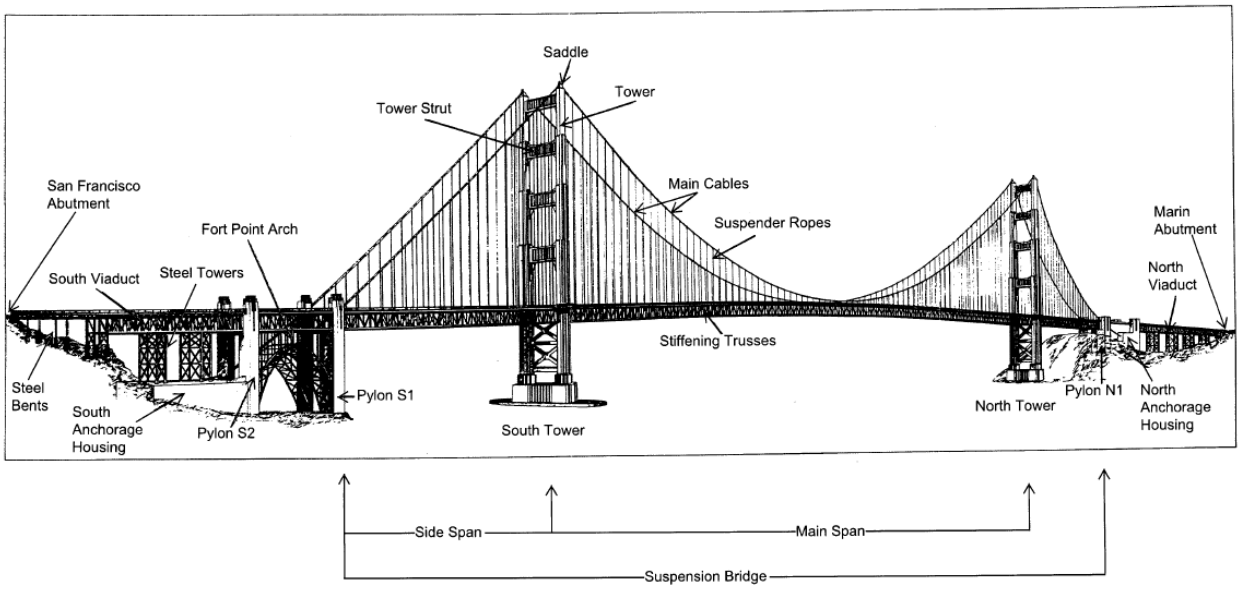
APPENDIX B : DPR 523 Form Update

P1. Other Identifier: Main and side suspension spans = Bridge 27 0052; Toll Plaza Undercrossing = Bridge 34 0069

***P3a. Description:** This update form has been prepared as part of the Golden Gate Bridge Physical Suicide Deterrent System Project. The Golden Gate Bridge was previously inventoried and evaluated by two survey efforts. MacDonald Architects surveyed the bridge in November 1993 as part of the Historic Architectural Survey Report for the "Proposed Seismic Retrofit Project for the Golden Gate Bridge," completed in January 1995. Meanwhile, the Western Regional Office of the National Park Service surveyed the property for a National Historic Landmark (NHL) Nomination, completed in August 1997. These two surveys are attached to this update form. This update was prepared to incorporate the extensive information provided in these previous studies, to augment that information with descriptions of changes to the property since the mid 1990s, and to clarify and confirm the contributing elements and historic status of the property within the Focused APE for this project.

The 1993 survey and the 1997 nomination identified the main bridge structures from the Toll Plaza area on the south, to the Marin Approach Viaduct and North Abutment on the north as the primary element of the Golden Gate Bridge historic property. The Golden Gate Bridge itself is thoroughly described in the 1997 nomination and its major components are the main suspension span, suspender ropes and suspension cables, four pylons, Four Point Arch and two of each of the following structures: side suspension spans, anchorages, piers, towers, and North and South viaducts. The 1993 survey identified the Round House Gift Center building as a contributing element of the bridge property, but did not address the approach roads in much detail because they were not within the APE for that project.[1]



Main elements of the Golden Gate Bridge
(Source: MacDonald Architects, "HASR: Seismic Retrofit Project, Golden Gate Bridge," [1995]).

The 1997 nomination addressed the collective system of structures that comprise the Golden Gate Bridge property and offered a detailed description of its contributing and non-contributing elements. The nomination identified the southern approach road (also known as the Presidio Approach Road, or Doyle Drive), and its two viaducts (Bridges 34 0014 and 34 0019), as contributing elements of the bridge, as well as the Round House Gift Center (originally a restaurant and traveler comfort station). The nomination did not specifically call out the small structure known as the Lincoln Boulevard Undercrossing (Bridge 34 0062), located at the north end of Doyle Drive just south of the Toll Plaza area, but the

[1] The General APE for the current project includes Doyle Drive as a contributing element, while the Focused APE for the current project encompasses the main bridge structures and the Toll Plaza to account for the proposed project footprint and construction staging areas.

nomination did consider the entire Doyle Drive feature to be a contributing element of the Golden Gate Bridge (see updated significance statement below). Railings and original light standards were identified as contributing elements of the bridge. The "Stop – Pay Toll" sign facing southbound traffic on the toll booth canopy was identified as a contributing feature; it has since been removed for installation of FasTrak[tm] signs, as discussed below (see Figures 3 - 4 and Photograph 8). The 1997 nomination also concluded that the Sausalito Lateral (original approach to the north side of the bridge), was not a contributing element because it had not been included in the final scope of work for the original bridge project, and was not designed, built, or funded by the team that was responsible for the rest of the Golden Gate Bridge, see the attached nomination for more information. Other non-contributing elements of the bridge property identified in the 1997 nomination: Toll Plaza Building, the clock on the toll booth canopy (1949), as well as modern bus shelters, phone booths, light standards, and signs.[2]

Both previous surveys summarized major construction and maintenance projects undertaken through the mid 1990s that altered aspects of the Golden Gate Bridge between its completion in 1937 and 1997. Many modifications were made during that sixty year period, but the NHL nomination noted that none of these modifications had "substantially" affected the historic integrity of the bridge as a historic property. The major projects during that time included: southbound lane widening approaching toll booths in 1947; the widening of both the Marin and San Francisco approach lanes (1950s) and viaducts (early 1960s); replacement of all suspender ropes and their connections between 1973 and 1976; replacement of rivets with bolts on the suspension bridge and approaches; installation of an orthotropic steel plate roadbed (1982-1985) replacing the original reinforced concrete roadway; and addition of lower lateral bracing system and diagonal bracing at North and South viaducts. In addition, during the early 1980s, the North and South approach viaducts underwent a substantial seismic upgrade.[3] Neither of the previous surveys devoted much description to the Vista Point on the Marin County side of the bridge, also known as the Golden Gate Observation Area. California Division of Highways designed and built this facility just east of US 101, adjacent to the North Abutment in 1961-1962. It was not part of the original bridge design and construction project and is not a contributing element of the bridge property.[4]

Other, smaller scale alterations completed between 1937 and 1997 included: addition of a bicycle bridge at the northern pylon in 1968-69 to connect to west sidewalk; removal of original toll booths in the 1980s; and replacement of light fixtures and retention of original light standards (compare light fixture in Figure 2, with Photographs 6-7). Other facilities that underwent changes in the 1980s: the addition of a west sidewalk on the North Approach (there was none originally); east side walk on North Approach widened; North Approach concrete guardrails replaced with metal. This work included removal of "… the structural steel sidewalk framing, including traffic curb, pedestrian railing and electrolier standards, [for transport] to the Napa yard for sandblasting, rehabilitation, and painting. Corrosion damage to individual frame members and railings was repaired and in some cases badly damaged members were replaced."[5] About ten years later, the Golden Gate Bridge and Highway Transportation District (District) replaced over one mile (6,557 linear feet) of pedestrian hand

[2] Caspar Mol, MacDonald Architects, "Caltrans Architectural Inventory and Evaluation Form for the Golden Gate Bridge," November 1993, 39-41; National Park Service, "National Historic Landmark Nomination for the Golden Gate Bridge," August 13, 1997, 9-10; Frank L. Stahl, Daniel E. Mohn, and Mary C. Currie, *The Golden Gate Bridge: Report of the Chief Engineer, Volume II, May 2007* (San Francisco, CA: Golden Gate Bridge, Highway and Transportation District, 2007), 102, 122-144, 155-156, 170, 178, 180-182. This 2007 report, a supplement to *The Golden Gate Bridge, Report of the Chief Engineer, September 1937* by Joseph B. Strauss, provides a comprehensive history of the improvements and other modification to the bridge since its completion in 1937.

[3] MacDonald Architects, "Caltrans Evaluation Form, Golden Gate Bridge," November 1993, 39-41; National Park Service, "NHL Nomination, Golden Gate Bridge," August 13, 1997, 9-10; San Francisco Historical Photograph Collection, Image #AAD-1470, August 1947, San Francisco Public Library; District, "Golden Gate Bridge Lighting Facts," http://goldengatebridge.org/research/, accessed January 2008; Stahl, et al., *The Golden Gate Bridge: Report of the Chief Engineer, May 2007*, 102, 122-144, 155-156, 170, 178, 201.

[4] San Francisco Historical Photograph Collection, San Francisco Public Library; GGNRA, *Cultural Landscape Report for Fort Baker* (GGNRA 2005), 20, 44.

[5] Stahl, et al., *The Golden Gate Bridge: Report of the Chief Engineer, Volume II, May 2007*, 140-141.

railings on the west side of the bridge with replicas of the originals. See Figures 2, 5 and 6, as well as Photographs 5, 6, and 9 for various historic and current views of the sidewalks and railings.[6]

Other than the second, on-going seismic retrofit project that began in 1997, the most extensive new construction on the Golden Gate Bridge since the 1997 nomination was the installation of new Public Safety Railing between the roadway lanes and each sidewalk in 2003 (Photograph 6). This 4.5' tall railing consists of steel posts set approximately 12.5' apart horizontal pipe rails with horizontal cables and horizontal pipe rails at the top (Photograph 6). The posts were secured to the extant steel curb barrier between the sidewalk and the roadway. The FasTrak[tm] project (2000-2005) required modifications to the toll booth canopy, including the removal of the "Stop – Pay Toll" sign that the 1997 nomination considered to be a contributing feature of the bridge. The sign was removed in 2000, and in 2003 the toll canopy roof was replaced and the 1949 neon clock, which had ceased to function and was not repairable, was replaced with a replica (Photograph 8).[7]

The District is currently conducting a three-phase seismic retrofit program on the Golden Gate Bridge that began in 1997. Phase 1, completed in 2002, retrofitted the Marin (north) Approach Viaduct. Retrofit of the San Francisco (south) Approach Viaduct, San Francisco (south) Anchorage Housing, Fort Point Arch, and Pylons S1 and S2 will be completed as part of Phase 2 (see Photograph 7). The retrofit of the Main Suspension Bridge and Marin (north) Anchorage Housing will be completed under Phase 3, scheduled to start in 2007.[8]

The Public Safety Railing Project and the seismic retrofit program currently underway were subject to Section 106 effects analysis and CEQA impacts analysis. No adverse effects to character-defining features or the qualities that qualify the Golden Gate Bridge for listing in the NRHP were identified for either project.[9] SHPO concurred with these findings, as shown in the attached correspondence, and the previous determination that the Golden Gate Bridge is eligible for listing in the NRHP remains valid.

***P3b. Resource Attributes:** (List attributes and codes) (HP19) Bridge

***P8. Recorded by:** Meta Bunse, JRP Historical Consulting, LLC, 1490 Drew Ave, Suite 110, Davis, CA 95618

***P9. Date Recorded:** March, August, and November 2007

***P11. Report Citation:** JRP Historical Consulting, LLC, "Historical Resources Evaluation Report, Golden Gate Bridge Physical Suicide Deterrent System Project," Project 2006-B-17, 04-MRN-101-GGHT, Federal Project #: STPL-6003(030) (May 2008)

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[6] National Park Service, "NHL Nomination, Golden Gate Bridge," August 13, 1997, 9; Stahl, et al., *The Golden Gate Bridge: Report of the Chief Engineer, Volume II, May 2007*, 144.

[7] Stahl, et al., *The Golden Gate Bridge: Report of the Chief Engineer, Volume II, May 2007*, 49, 185-186, 193, 194, 243-248; District, "Toll History," and "Golden Gate Bridge FasTrak System Timeline," http://goldengatebridge.org/research/, accessed January 2008.

[8] MacDonald Architects, "HASR: Proposed Seismic Retrofit Project for the Golden Gate Bridge," (1995); District, "Overview of Golden Gate Bridge Seismic Retrofit Updated January 2007," http://goldengatebridge.org/projects/retrofit.php, accessed online February 26, 2008.

[9] Frank L. Stahl,et al., 243-244; Donald MacDonald, MacDonald Architects, "Historic Property Survey Report, Finding of No Adverse Effect: Environmental Assessment of the Public Safety Railing Project" (March 1999) 1-2 and 6; Donald MacDonald and Caspar Mol, MacDonald Architects, "Historic Property Survey Report, Finding of No Adverse Effect for the Proposed Seismic Retrofit Project for the Golden Gate Bridge," (January 1995); District, FHWA, and Caltrans, "Golden Gate Bridge Seismic and Wind Retrofit Project, Draft Environmental Assessment / Initial Study," (November 1995).

***B10. Significance:** This update form has been prepared as part of the Golden Gate Bridge Physical Suicide Deterrent System Project to supplement previous surveys of the Golden Gate Bridge history property and to clarify its historic status and contributing elements. The Bridge is a multi-component historic structure that has been determined eligible for listing in the NRHP, OHP Status Code 2. A collection of agency correspondence regarding the historic status of the bridge and its contributing elements is included in the Historic Property Survey Report and Historical Resources Evaluation Report prepared for this project.

The Golden Gate Bridge has been recognized by several local, state, and federal programs. It was designated as California State Historic Landmark No. 974 in 1990, which automatically listed the property in the California Register of Historical Resources (CRHR).[10] The Golden Gate Bridge and its approaches have been documented by the Historic American Engineering Record (HAER No. CA-31), and the bridge has been recognized by the American Society of Civil Engineers on at least three separate occasions: as one of the Seven [engineering] Wonders of the World in 1955, as a National Civil Engineering Landmark in 1984, and as a Monument of the Millennium in 2001. The Golden Gate Bridge is also San Francisco City Landmark No. 222. Currently, Caltrans lists this bridge as Category 2 (eligible for listing in the NRHP) in its Caltrans Historic Bridge Inventory.[11] The Golden Gate Bridge is also considered to be a historical resource for the purposes of California Environmental Quality Act (CEQA).

The Golden Gate Bridge was determined eligible for listing in the NRHP in 1980, under Criteria A, B, and C, at the national level of significance, with a period of significance of 1933-1938. FHWA Region 9 requested the determination in 1979 when the bridge was about 42 years old, but the California State Historic Preservation Officer, and the Advisory Council for Historic Preservation agreed that the bridge was exceptionally important. Subsequent research and at least three additional inventory and evaluation efforts have refined the eligibility analysis and expanded the identification of the contributing elements of the property and its character-defining features. Caltrans Architectural Historian Stephen Mikesell, who is now Deputy SHPO, evaluated the approaches to the bridge and concluded that the Presidio Viaduct (Bridge 34 0019) and Marina Viaduct (34 0014) were eligible for individual listing in the NRHP, and as contributing elements of the Golden Gate Bridge and SHPO concurred (see the attached correspondence).

As discussed above, the bridge was then evaluated in 1993 for a proposed seismic project, and then again in 1997 for a proposed NHL nomination. The 1997 nomination proposed significance under Criterion C only. The supporting documentation and analysis under Criterion C significance appears to be accurate and is proposed as the correct area of significance in this updated evaluation. The NPS has produced and revised guidelines for the evaluation of historic properties since the time of the 1980 determination and the argument for eligibility under Criteria A and B is no longer adequate. The request for determination argued that bridge was eligible under Criterion A for its association with the history of the Golden Gate Strait and went on to describe the events and trends in California history that took place through the

[10] National Park Service, National Historic Landmark Nomination; California OHP, "Directory of Properties in the Historic Property Data File for San Francisco County," as of December 2007, http://www.dot.ca.gov/hq/structur/strmaint/hs_state.pdf, on file with Northwest Information Center; Caltrans, "Structure & Maintenance Investigation, Historical Significance–State Agency Bridges," November 2007; Homme, FHWA, "Request for Determination of Eligibility for the Golden Gate Bridge," 1979; Stephen Mikesell, "HRER Approaches to the Golden Gate Bridge," 1987; Snyder, Memorandum to SHPO re: Presidio Viaduct and Marina Viaduct, April 3,1990; and Nissley at ACHP, Letter to Markle at FHWA, re: Marina Viaduct Seismic Retrofit, 1994. Caltrans and California Office of Historic Preservation records indicate that the Golden Gate Bridge has been the subject of historic evaluation for many years. The Keeper of the National Register determined the bridge to be eligible for the NRHP in 1977 (Status 2S1) and in 1980 a consensus determination was made, resulting in a Status 2S2 (determined eligible for separate listing). Caltrans Architectural Historian Stephen Mikesell evaluated the approaches to the bridge and concluded that the Presidio Viaduct (Bridge 34 0019) and Marina Viaduct (34 0014) were eligible for listing in the NRHP as contributing elements of the Golden Gate Bridge and SHPO concurred.

[11] National Park Service, National Historic Landmark Nomination; Golden Gate Bridge, HAER # CA-31 (1984); Presidio of San Francisco, HABS # CA-1100-1114, 1173, 1174, 1212-1216, 1239, and 2269; San Francisco Planning Department, Landmarks Preservation Advisory Board, Golden Gate Bridge, case file for Landmark No. 222, 1999; Caltrans, "Structure & Maintenance Investigation, Historical Significance–State Agency Bridges," November 2007.

entrance that the strait provides to San Francisco Bay and points beyond prior to construction of the bridge. The bridge does not, however, have direct or important associations with any of the events or trends mentioned in the request for determination, which is a required aspect of eligibility under Criterion A. The request also proposed that the bridge was eligible for listing under Criterion B, for its association with its lead proponent and engineer, Joseph B. Strauss. Criterion B is intended for direct personal association with a historically significant individual, and is usually applied to the place where the individual conducted his or her important work, such as a studio, work place, or home. The association of the bridge with Strauss more accurately falls under Criterion C, as the work of a master engineer. The Golden Gate Bridge property, therefore, does not appear to meet Criterion A or Criterion B.[12]

There is ample documentation and analysis to support eligibility of the bridge property under Criterion C, as an important example of: suspension bridge technology, Art Deco design, and the work of more than one master engineer and architect. Please refer to the attached copies of the 1993 evaluation, 1997 nomination, and the 1987 evaluation of the Presidio Approach Road for discussion of eligibility under Criterion C. The 1997 nomination listed eight major engineers and architects who contributed to the project, including Joseph B. Strauss and Irving F. Morrow, of Irving F. Morrow & Morrow, San Francisco, who served as consulting architect on the original Golden Gate Bridge design and construction project.

The 1997 nomination listed eight major engineers and architects who contributed to the project, including Joseph B. Strauss and Irving F. Morrow, of Morrow & Morrow, San Francisco, who served as consulting architect on the original Golden Gate Bridge design and construction project. Both Strauss and Morrow recognized the important historic nature of the setting of the Bridge from the earliest stages of the project. Strauss noted the importance of the history of the area in his initial site investigations, and his respect for existing historic structures directly affected a major component of the final Bridge: the Fort Point Arch (see Figure 1 and Photograph 7).

> [In the in 1920s]… the newly created Golden Gate Bridge District was raising tens of millions of dollars through bond sales for a bridge that would span the Golden Gate from Fort Point to Lime Point. Chief Engineer Joseph Strauss initially concluded that Fort Point sat on the optimal location for a huge concrete caisson anchoring the bridge's San Francisco end. After touring the empty fort, however, he changed his mind. In a 1937 memorandum to the bridge's Board of Directors, Strauss wrote: "While the old fort has no military value now, it remains nevertheless a fine example of the mason's art. Many urged the razing of this venerable structure to make way for modern progress. In the writer's view it should be preserved and restored as a national monument…"
>
> Strauss made some additional calculations and concluded that the fort could be spared by moving the southern anchorage several hundred feet south. However, in order to make up the difference in the total length, he would have to add a 'bridge within the bridge,' and consequently designed a steel arch in the southern anchorage to span the old fort. Fort Point would be overshadowed by the new bridge, but it would be preserved. … But the bridge crews went to extraordinary lengths to preserve one of the fort's most outstanding examples of military engineering, the granite seawall. A tall concrete bridge pylon was planned for the north side of the fort, directly atop the seawall. Instead of demolishing the wall or burying it with concrete, Strauss had it dismantled, stored, and re-erected once the pylon was finished.[13]

[12] USDI, National Park Service, "Guidelines for Applying the National Register Criteria for Evaluation," *National Register Bulletin 15* (Washington DC: GPO, 1990; revised 1991-1997; revised for Internet 1995-2002), 16.

[13] John Martini, Fort Point: Sentry at the Golden Gate, ([San Francisco]: Golden Gate National Park Association, c1991), np. The 1997 nomination indicated that the Castillo de San Joaquin was probably destroyed by construction of the bridge, which seems to be confirmed by Martini's history of Fort Point, which continues: "Although the main casemated portion of Fort Point was spared during construction, some of the outworks of the fort had to be demolished to make way for the southern bridge anchorage. Early in the excavation process, the bluff south of the fort was cut back several hundred feet, destroying the counterscarp gallery and ten-gun battery.

Strauss probably discussed this in detail with Irving Morrow, who in addition to consulting on the bridge project, was the San Francisco District Officer of the Historic American Buildings Survey (HABS) at the time. Morrow oversaw submittal of seven photographs of the fort property made by Roger Sturtevant in May 1934, and possibly additional material that has not been digitized by the Library of Congress HABS Program.[14]

Although these bridge designers obviously appreciated the history of the Golden Gate and the military facilities surrounding the site, their design aesthetic looked forward rather than back and their finished product was ultimately a triumph of both bridge engineering and Art Deco design. Consulting architect Morrow was involved with the project from an early point, by about 1930, and continued to collaborate with Strauss and the rest of the Board of Engineers for the next seven years.[15] This early and consistent involvement in the design for the bridge as consulting architect is evident in his design of the largest components, such as the towers, as well as the human-scale elements of the bridge like the handrails and light standards. The Board of Engineers engaged Morrow for the "architectural work" of the main towers above the water line including the metal sheathing of the struts, the above ground anchorages (north and south), toll houses, service buildings, and "hand rail, seats, and electroliers" by 1931, and ultimately, he also designed the treatments of the concrete piers and pylons, the arch over Fort Point, and the color of the bridge.[16]

The minutes of the Board of Engineers' meetings, and correspondence and reports by Morrow and Strauss also reveal that the designers accounted for the pedestrian and motorist experience and use of the bridge. Strauss claimed in 1933 that "… the extraordinary scenic setting that this one site alone presents…will make it a signtseer's Mecca. For the same reason, it is the only bridge the decks of which will afford the incomparable view that has made the Golden Gate famous. To permit that view, the sidewalks are built as broad promenades, with rest seats at intervals."[17] The "rest seats" were not ultimately constructed, but visitor experience and views remained central to the design of several elements of the bridge at the deck level. The Board of Engineers specifically addressed the hand railings again in July 1934, while discussing their attempt "to avoid conflict with the vision of motorists" and remain consistent with the European precedence of railings about one meter high (roughly 3.3 feet). The engineers ultimately decided that it was "…impossible to improve the position of the handrailing without changing the sidewalk level [and] the decision was to leave the railing height at 4 feet."[18]

After the bridge opened in May 1937, Morrow summarized his design goals for the bridge, which he considered to be "predominantly 'industrial' in character," explaining that:

> Architectural work on the Golden Gate Bridge was not an act of posthumous deification, but proceeded concurrently with the development of the engineering design. The ideal actualizing design work was to repudiate the devastating obligation to be artistic. Superfluous features were excluded, and interest was secured by the proportioning and handling of necessities.

Bridge excavators also uncovered a long-buried adobe shed believed to be a powder magazine from the Castillo de San Joaquin. After its location was noted and photographed, the hut was demolished; it stood in a location too critical for it to be preserved."

[14] Historic American Buildings Survey, Data Sheets for HABS CA-1239, Library of Congress, accessed online: www.loc.gov; HABS, *Catalogue of the Measured Drawings and Photographs of the Survey in the Library of Congress, March 1, 1941* (Washington, D.C.: US GPO, 1941), 48.

[15] Consulting Board of Engineers for the Golden Gate Bridge, Minutes, July 16 and 17, 1934, Charles Derleth Papers, Box 1, Water Resources Center Archives, University of California, Berkeley.

[16] Irving F. Morrow to Joseph B. Strauss, February 19, 1931, and "Architectural Work on the Golden Gate Bridge," typescript, June 14, 1937, "Irving F. Morrow (and Gertrude C. Morrow) Collection, 1914-1958," Project III.14, Environmental Design Archives, College of Environmental Design, University of California, Berkeley.

[17] "Physical Characteristics of the Golden Gate Bridge compiled by Joseph B. Strauss, Chief Engineer," typescript, received January 28, 1933, "Irving F. Morrow (and Gertrude C. Morrow) Collection, 1914-1958," Project III.21, Environmental Design Archives, College of Environmental Design, University of California, Berkeley.

[18] Consulting Board of Engineers for the Golden Gate Bridge, Minutes, July 16 and 17, 1934, Charles Derleth Papers, Box 1, Water Resources Center Archives, University of California, Berkeley.

This was true, asserted Morrow, of not only the major structural components, but also the "handrails, electroliers, etc., where of concrete are reduced to lowest terms, and where of metal are designed of structural steel shapes, utilizing appropriate techniques of fabrication and assembly to motivate design."[19]

The Golden Gate Bridge, as evaluated in the 1997 nomination, is a system of contributing structures that rely upon each to achieve the overall effect of their design. The basic components of the main suspension span and side spans, the pylons, approach viaducts, and Fort Point Arch, are also interconnected with the other contributing elements: the Presidio Approach Road and the Round House. The verbal boundary of the property is delineated in the attached 1997 nomination. The Toll Plaza Undercrossing (34 0069) is also an original component of the Golden Gate Bridge that appears to be eligible as a contributing element of the bridge, but was not individually evaluated in the 1993 or 1997 surveys. The Toll Plaza Undercrossing (34 0069) is also listed in the NRHP as a contributing element of the Presidio of San Francisco National Historic Landmark.[20] The tunnel-like undercrossing is a single span concrete tee beam structure designed to allow vehicular traffic and pedestrians to cross from one side of the roadway to the other underneath the Toll Plaza using surface streets. The west side of the bridge is directly underneath the Administration Building (a non-contributing element because of integrity loss, according to both the 1993 and 1997 surveys), as shown in Figure 1 and Photographs 10-11. The rest of the bridge carries the lanes of traffic as they pass through the toll booths. Caltrans bridge logs indicate that the undercrossing is about 33' long and 291' wide, and that it has not undergone major widening or extension since it was completed in 1936.[21] The 1997 nomination included the Toll Plaza area within the proposed NHL boundaries because the plaza serves as the southern ending of the main bridge element and links it to the contributing southern approach road. The Toll Plaza Undercrossing was constructed as part of the original Golden Gate Bridge and its Toll Plaza and, therefore, appears to be a contributing element of the property.

The primary character-defining elements and decorative features of the bridge and its contributing elements are its major structural elements (the suspension bridge anchorages, pylons, piers, towers, main span and side spans), the plate girder bridge, arch bridge, and truss bridges of the approaches, the southern approach roadway (Doyle Drive), main suspension cables, Round House, and Toll Plaza Undercrossing. The Art Deco / Moderne design of these structures is a high ranking character-defining feature of all of these structures and their use within the overall bridge. The railings from the original construction and railings replicated to match original, as well as the layout of the sidewalks – width and construction around piers and pylons – that allow pedestrian use of bridge are essential character-defining features of the property. Although the sidewalks have been extended and widened, they continue to serve as important, human scale features of the bridge that make it readily accessible to the commuting and visiting public.

Other character-defining features that are important in conveying the artistic value of the property are the electroliers, or light standards, the International Orange paint color, and remaining concrete railings. The previous evaluations specifically identified the light standards and pedestrian railings as contributing elements of the property, and both were designed by consulting architect Irving F. Morrow. "In addition to recommending the red vermilion (known as "international orange") paint color that still graces the Bridge today, Mr. Morrow was largely responsible for the architectural enhancements that define the Bridge's Art Deco form. The pedestrian railings were simplified to modest, uniform posts placed far enough apart to allow motorists an unobstructed view. The electroliers (light posts) took on a lean, angled form and decorative cladding was added to the portal bracing of the main towers."[22]

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[19] Irving F. Morrow to Ernest Born, September 26, 1938, "Irving F. Morrow (and Gertrude C. Morrow) Collection, 1914-1958," Project III.14, Environmental Design Archives, UC, Berkeley.

[20] National Park Service, "National Historic Landmark Nomination for the Golden Gate Bridge," August 13, 1997; Caltrans, "2006 Statewide Historic Bridge Inventory Update," and see HRER, Appendix D.

[21] Caltrans, "Structure & Maintenance Investigation, Log of Bridges on State Highways," July 2007, accessed online at: http://www.dot.ca.gov/hq/structur/strmaint/brlog/logpdf/logd04.pdf.

[22] Stahl, et al., *The Golden Gate Bridge: Report of the Chief Engineer, Volume II, May 2007*, 173.

Overall, the Golden Gate Bridge has lost some historic integrity through the course of seventy years of operation, maintenance, and improvements. Nevertheless, previous effects analysis has not identified adverse effects to the character-defining features of the bridge, and the property clearly conveys its significance as an excellent example of the incorporation of architectural styling to 1930s state-of-the art engineering, as clarified by this update and as recognized by the state, local, and federal historic preservation programs described herein.

***B11. Additional Resource Attributes:** (HP4) Ancillary building (Round House Gift Center building)

***B12. References:** Please also consult references included with the attached 1993 and 1997 surveys. Additional references consulted for the preparation of this update form include:

California Department of Transportation, "Structure & Maintenance Investigation, Historical Significance – State Agency Bridges," November 2007, accessed online: http://www.dot.ca.gov/hq/structur/strmaint/hs_state.pdf.

_____, "Structure & Maintenance Investigation, Log of Bridges on State Highways," July 2007, accessed online at: http://www.dot.ca.gov/hq/structur/strmaint/brlog/logpdf/logd04.pdf.

_____, Stephen Mikesell, "HRER Approaches to the Golden Gate Bridge [Presidio Viaduct (Bridge 34 0019) and Marina Viaduct (34 0014)]," 1987.

California Office of Historic Preservation, "Directory of Properties in the Historic Property Data File for San Francisco County," as of December 2007, on file with Northwest Information Center.

District, "Golden Gate Bridge Lighting Facts," http://goldengatebridge.org/research/, accessed January 2008.

_____, "Overview of Golden Gate Bridge Seismic Retrofit Updated January 2007" accessed online February 26, 2008 http://goldengatebridge.org/projects/retrofit.php.

_____, "Toll History," and "Golden Gate Bridge FasTrak System Timeline," http://goldengatebridge.org/research/, accessed January 2008.

Historic American Buildings Survey, Presidio of San Francisco, HABS # CA-1100-1114, 1173, 1174, 1212-1216, 1239, and 2269.

_____, *Catalogue of the Measured Drawings and Photographs of the Survey in the Library of Congress, March 1, 1941* (Washington, D.C.: US GPO, 1941).

Historic American Engineering Record, Golden Gate Bridge, HAER # CA-31 (1984).

Homme, Oscar. FHWA, "Request for Determination of Eligibility for the Golden Gate Bridge," 1979.

MacDonald Architects. "HASR: Proposed Seismic Retrofit Project for the Golden Gate Bridge," (1995).

Martini, John. *Fort Point: Sentry at the Golden Gate*. [San Francisco]: Golden Gate National Park Association, c1991.

Mol, Caspar. MacDonald Architects, "Caltrans Architectural Inventory and Evaluation Form for the Golden Gate Bridge," November 1993.

National Park Service, "National Historic Landmark Nomination for the Golden Gate Bridge," August 13, 1997.

Stahl, Frank L., and Daniel E. Mohn, and Mary C. Currie, *The Golden Gate Bridge: Report of the Chief Engineer, Volume II, May 2007* (San Francisco, CA: Golden Gate Bridge, Highway and Transportation District, 2007).

San Francisco Historical Photograph Collection. San Francisco Public Library. Accessed online at: http://sfpl.org/librarylocations/sfhistory/sfphoto.htm

San Francisco Planning Department, Landmarks Preservation Advisory Board, Golden Gate Bridge, case file for Landmark No. 222, 1999.

***B14. Evaluator:** Meta Bunse ***Date of Evaluation:** April 2008

Figures:

Figure 1. Detail of 1937 photograph showing Toll Plaza and bridge administration building, with west entrance to the Toll Plaza Undercrossing (34 0069) visible underneath the southern end of the building. (San Francisco History Center, San Francisco Public Library)

Figure 2. Photographs of sidewalk, railing, light standards and roadway. At left, just days before the bridge opened in May 1937, with original light fixtures. (San Francisco History Center, San Francisco Public Library) At right, showing replaced light fixtures, by photographer Jet Lowe, 1984. (HAER CA-31, www.loc.gov). See Photograph 6, below for a view of the new public safety railing.

Figure 3. Detail of 1950 photograph showing "Stop – Pay Toll" sign for northbound traffic. Original light standard with suspended light fixture visible at right. (San Francisco History Center, San Francisco Public Library)

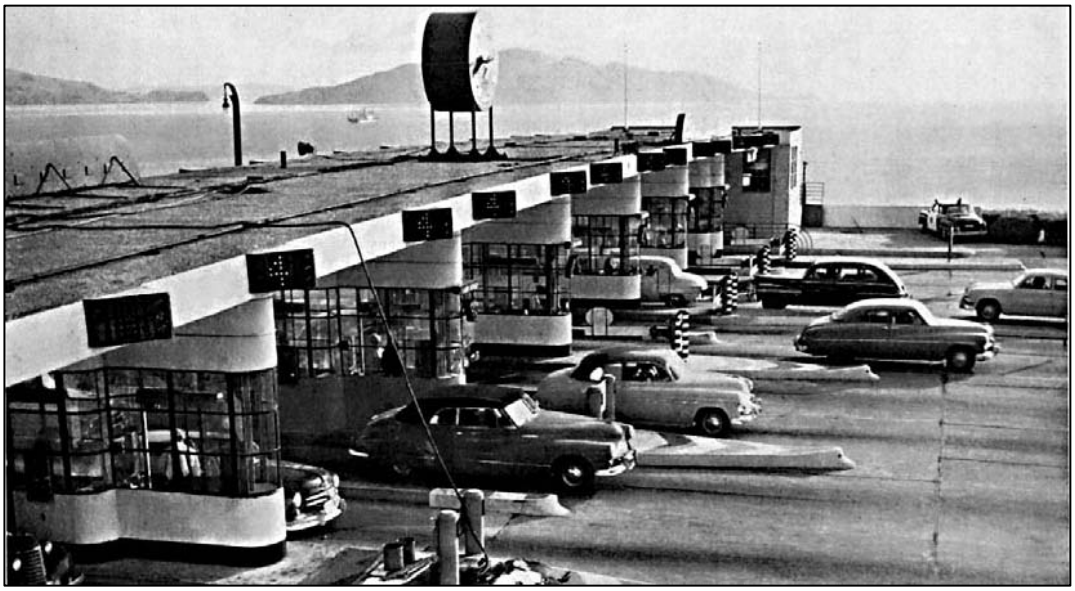

Figure 4. Toll Plaza in 1952, showing clock at center of toll canopy as installed in 1949. (District, 2007 *Report of the Chief Engineer*)

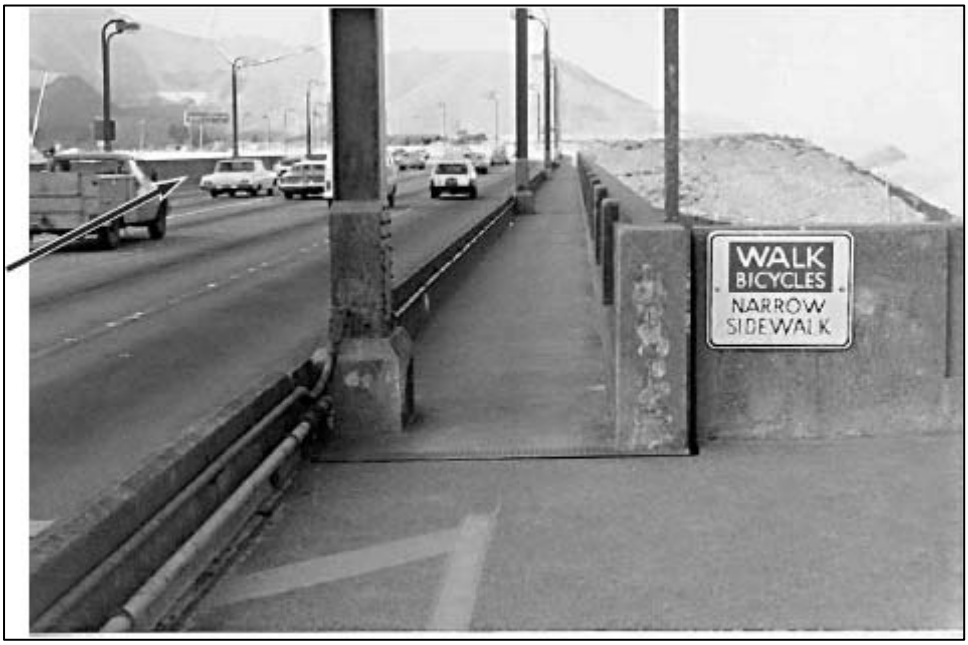

Figure 5. Photograph of east sidewalk, facing North Viaduct before 1980s sidewalk widening and extension projects. Arrow indicates no west sidewalk north of Pylon N1. (District, 2007 *Report of the Chief Engineer*)

Figure 6. Specifications of original sidewalks when the bridge opened in May 1937, as described in the 2007 *Report of the Chief Engineer*:

Separated from the roadway by a 2 foot 6 inch high steel traffic curb, the Bridge, as built, included a pedestrian walkway along its east and west faces. This walkway consisted of a 3½ inch thick concrete slab supported by steel framework extending from the roadway structure and was approximately 14½ inches higher than the roadway. The sidewalks were originally constructed as follows:

West Sidewalk, from the San Francisco abutment north to pylon N2, it was 10 feet wide, with the following exceptions:

- *From pylon S2 to S1, the portion over the Fort Point arch, the sidewalk was 16 feet wide.*
- *The sidewalk remained at 10 feet up to just north of pylon N1, where it flared out to 33 feet to pylon N2.*
- *There was no sidewalk at all north of pylon N2.*

East Sidewalk, from the San Francisco abutment to pylon N2, the sidewalk was 10 feet wide, with the following exceptions:

- *From pylon S2 to S1, the portion over the Fort Point arch, the sidewalk was 16 feet wide.*
- *The sidewalk remained at 10 feet up to just north of pylon N1, where it flared out to 33 feet to pylon N2.*
- *From pylon N2 to the Marin abutment the sidewalk was 6 feet wide.*[23]

[23] Stahl, et al., *The Golden Gate Bridge: Report of the Chief Engineer, Volume II, May 2007*, 105.

Photographs:

Photograph 1. View of west side of bridge, camera facing south, August 2007.
[Source: MacDonald Architects]

Photograph 2. View of east side of bridge from Fort Point, camera facing north, August 2007.
[Source: MacDonald Architects]

Photographs:

Photograph 3. View of west side of the bridge showing South Viaduct, camera facing northeast, August 2007.
[Source: MacDonald Architects]

Photograph 4. View of North Viaduct from Vista Point, camera facing south.
[Source: MacDonald Architects]

Photographs:

Photograph 5. View of bridge deck and towers (right), camera facing north, March 2007.
[Source: JRP Historical Consulting, LLC]

Photographs:

Photograph 6. View of north viaduct, showing safety railing, camera facing north, November 2007.
[Source: JRP Historical Consulting, LLC]

Photograph 7. Seismic retrofit in progress at Fort Point Arch, camera facing northwest, March 2007.
[Source: JRP Historical Consulting, LLC]

Photograph 8. Toll booths and canopy, camera facing northeast, March 2007.
[Source: JRP Historical Consulting, LLC]

Photograph 9. Southbound lanes approaching Toll Plaza, view northeast, March 2007.
[Source: JRP Historical Consulting, LLC]

Photograph 10. West side of Toll Plaza Undercrossing (34 0069), view north, April 2008.
[Source: JRP Historical Consulting, LLC]

Photograph 11. East side of Toll Plaza Undercrossing (34 0069), view southwest, April 2008.
[Source: JRP Historical Consulting, LLC]