

MEMO

DATE: September 21, 2011

TO: Historic Preservation Commission (HPC)

FROM: Mark Paez, Preservation Planner, Port of San Francisco

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REVIEWED BY: Tina Tam, Senior Preservation Planner, Planning Department

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RE: Section 106 Review and Comment for Pier 36/Brannan Street Wharf

Case No. 2009.0418F

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REQUESTED ACTION

The United States Army Corps of Engineer (USACE) has asked the Planning Department to participate in reviewing the Draft Memorandum of Agreement (MOA) for the proposed project at Pier 36, pursuant to Section 106 of the National Historic Preservation Act. Specifically, USACE has requested review and comment on the Draft MOA, as well as the following documents some of which were prepared by the Port of San Francisco (Port) for this Section 106 review:

- Port of San Francisco, Pier 36/Brannan Street Wharf Project Section 106 Historic Property Survey Report (February 21, 2011);
- Letter, from USACE to Milford Wayne Donaldson, State Historic Preservation Officer (May 11, 2011);
- Letter, from USACE to the Reid Nelson, Office of Federal Agency Programs, Advisory Council on Historic Preservation (August 3, 2011);
- Memorandum of Agreement between U.S. Army Corps of Engineers and the California State Historic Preservation Officer Regarding the Pier 36 Demolition Project, San Francisco, San Francisco County, California (Draft, August 26, 2011);

The Planning Department requests review and comment on the above-mentioned documents. A letter documenting the comments on the project may be prepared. If so, the letter should conclude with the HPC's views on the effect this undertaking could have upon historic properties, if any, within the project Area of Potential Effect (APE). The Director of the Planning Department will then forward the letter containing comments of the HPC, as well as the comments of the Department to the USACE, the Lead Agency, with copies to the State Historic Preservation Officer and the Port of San Francisco and any other interested parties.

PROPERTY DESCRIPTION

The project site includes: Pier 36 and Bulkhead Wharf Sections 11, 11a and 12. This section of the bulkhead wharf connects the pier to the seawall in the Rincon Point South Beach portion of the waterfront. These historic properties are located south of the San Francisco Oakland Bay Bridge,

between Piers 30-32 and 38. The project site is within the jurisdiction and ownership of the Port of San Francisco. Pier 36 and Sections 11a, 11 and 12 of the bulkhead wharf are contributing resources within the Port of San Francisco Embarcadero Historic District, a district which is listed in the National Register of Historic Places. Pier 36 and these three sections of the bulkhead wharf are vacant and secured with fencing because their structurally deficient and unsafe condition prohibits public access.

PROJECT DESCRIPTION/UNDERTAKING

The USACE and the Port are sharing responsibility for the proposed project, which includes demolition of the existing pier and new construction of a public park. The USACE is responsible for the demolition of Pier 36 and the bulkhead wharf, which is considered "demolition" in a federal undertaking. Likewise, the Port is responsible for the construction of the Brannan Street Wharf and public park improvements.

The proposed project would result in the demolition of Pier 36 and three sections of the bulkhead wharf. These four historic properties are contributing resources within the Embarcadero Historic District, a district listed in the National Register of Historic Places in 2006. The proposed demolition would include the removal of: approximately 133,000 square feet of pile-supported concrete, wooden decks, and piles; the 35,000 square foot Pier 36 warehouse building; and approximately 18,800 square feet (868 lineal feet) of bulkhead wharf, which runs between Piers 30-32 and Pier 38. The proposed demolition is necessary to improve navigation and prepare the site for the Port's proposed construction of a new approximately 57,000 square foot wharf to accommodate a new public park.

ENVIRONMENTAL REVIEW STATUS

The Planning Department reviewed the environmental effects of the proposed project in the Pier 36/Brannan Street Wharf Project Environmental Impact Report (EIR), and circulated this document for public review and comment. The Planning Commission certified the EIR in Motion No. M-18381 and noted the proposed project's compliance with the California Environmental Quality Act (Cal. Pub. Res. Code Section 21000 et seq., hereinafter "CEQA").

As a part of the public review process, the Historic Preservation Commission reviewed the Draft EIR at a public hearing held on March 16, 2011, and provided its comments in a March 23, 2011 letter to Mr. Bill Wycko, Environmental Review Officer, San Francisco Planning Department. It should also be noted that the mitigation measures in the Draft MOA are the same as the cultural resources mitigation measures set forth in the EIR. A copy of the March 23, 2011 HPC Letter is attached.

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PLANNING DEPARTMENT 2 of 5

STAFF ANALYSIS

Area of Potential Effect

The APE has been identified as the portion of the waterfront south of the San Francisco Oakland Bay Bridge between Piers 30-32 and 38 and includes the Embarcadero and the properties fronting the west side of the Embarcadero.

Determination of Eligibility

Pier 36 and Sections 11a, 11 and 12 of the bulkhead wharf are contributing resources to the Embarcadero Historic District, which is listed in National Register of Historic Places under Criterion A (Events), B (Persons) and C (Design/Construction) at the national level of significance.

Determination of Adverse Effects

The USACE, in concert with the Port, has determined that removal of Pier 36 and three sections of the Bulkhead Wharf constitute adverse effects to the individual maritime properties but not to the Embarcadero Historic District. This finding relies on the strength of the seawall, remaining sections of bulkhead wharf, combined with the continuity of the remaining contributing piers. These resources collectively will continue to represent the district's period of significance and convey its historical character even after the loss of Pier 36 and three section of the bulkhead wharf. Lastly, it was concluded that the Brannan Street Wharf project, although not consistent with the general pattern of rectangular shaped piers radiating out perpendicular from the seawall, is otherwise generally compatible with the Historic District in terms of its proposed character, pile-supported design, materials, and function.

Memorandum of Agreement

To address the adverse effect to Pier 36 and the bulkhead wharf the USACE proposes to execute a Memorandum of Agreement (MOA) with the SHPO that would require mitigation of the adverse effects of the undertaking. These mitigation measures are designed to address the adverse effects on the resources and include the following:

- 1. Historic American Building Survey (HABS)/Historic American Engineering Record (HAER) archival documentation;
- Salvage of historic materials prior to demolition for incorporation into the proposed new wharf structure, or for donation to recognized historic preservation organizations if feasible; and
- 3. An interpretive exhibit featuring the history of the waterfront and the history of Pier 36 and the operation of the Belt Railroad is proposed and will be incorporated into the design of the park improvements on the new wharf. The purpose of the interpretive exhibit is to commemorate the significance and history of the site, the impacted historic resources and the district.

Conclusion

Planning Department Staff concurs with the following elements of the Section 106 Review and Draft MOA:

- <u>Project Description/Undertaking</u>: Staff concurs with definition of the Project Description /Undertaking provided by the USACE and Port.
- <u>Area of Potential Effects</u>: Staff concurs with the findings of the Historic Context and the Section 106 Historic Property Survey Report prepared by the Port for the USACE.
- <u>Historic Properties</u>: Staff concurs with the MOA's identification of historic properties as
 contributing resources within the Embarcadero Historic District, which is listed in the
 National Register of Historic Places.
- <u>Effects</u>: Staff concurs with the finding that the project will have an adverse effect
 on historic properties and that the execution of the MOA, including mitigation
 measures to reduce the severity of the adverse effect of this undertaking, is
 appropriate.

ATTACHMENTS

- Port of San Francisco, Pier 36/Brannan Street Wharf Project Section 106 Historic Property Survey Report (February 21, 2011)
- Letter, from USACE to Milford Wayne Donaldson, State Historic Preservation Officer (May 11, 2011)
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- Letter, from Historic Preservation Commission to Mr. Bill Wycko, Environmental Review Officer, San Francisco Planning Department (March 23, 2011)
- Figure 1. Project Location Map
- Figure 2. Historic District Map
- Figure 3. Site Plan
- Figure 4. Pier 36, 1909 Floor Plan
- Figure 5. Area of Potential Effect (January 2010)
- Figure 6. View of Area of Potential Effect/View of Bulkhead Wharf
- Figure 7. View of Deteriorated Bulkhead Wharf/View of Pier 36 Embarcadero Elevation
- Figure 8. Embarcadero Roadway/View of Residential Tower across Embarcadero
- Figure 9. View of Bulkhead Wharf/View of Piers 38 and 40, and South Beach Marina

- Figure 10. View of Bulkhead Wharf and South Elevation of Pier 36/View of Outboard End of Pier 36
- Figure 11. Bulkhead Wharf and Seawall Location By Section
- Figure 12. Seawall Section

February 21, 2011

REVISED DRAFT

Pier 36/Brannan Street Wharf Project Section 106 Historic Property Survey Report

Prepared by the Port of San Francisco for the U.S. Army Corps of Engineers

Introduction

Since 2003, the Port of San Francisco (Port) has been planning and designing a significant new public open space and park, know as the Brannan Street Wharf, in the South Beach area of the San Francisco waterfront at the foot of Brannan Street (**Figure 1 - Location Map**) in accordance with the Port's Waterfront Land Use Plan policies. The proposed Brannan Street Wharf would be located within the Port's Embarcadero Historic District (Historic District), which was listed in the National Register of Historic Places (NRHP) in 2006.

There are four Contributing Resources to the Historic District, including Pier 36 and three sections of the Bulkhead Wharf, within the project site. These resources would be demolished to prepare the site for the construction of the wharf. The proposed Brannan Street Wharf would replace Pier 36 and associated sections of the Bulkhead Wharf which are condemned and "red tagged" by the Port's Chief Harbor Engineer in 2004.

The Brannan Street Wharf is a joint project being undertaken by the Port and the U.S. Army Corps of Engineers (Army Corps). The Army Corps has received approximately \$4 million of Federal Water Resources Development Act (WRDA) funding for the demolition of Pier 36 and has the responsibility of implementing that component of the project. The Port would be the project sponsor for the demolition of bulkhead wharf Sections 11a, 11 and 12, and the construction of the Brannan Street Wharf. The project construction is expected to take 22 months at a total cost of \$25 million. The use of WRDA funding is a federal undertaking and the. Army Corps will act as a partner in the Pier 36 demolition project thus the federal lead agency for purposes of administering the funding and for regulatory compliance with the National Environmental Policy Act (NEPA), and Section 106 of the National Historic

Preservation Act (NHPA). The Port has prepared this background report at the request of the Army Corps to initiate the federal environmental review process in accordance with a cost sharing agreement. Because the project is also the subject of an Environmental Impact Report (EIR) being prepared by the San Francisco Planning Department, the lead agency, in accordance with the California Environmental Quality Act (CEQA), the Port and Planning Department are coordinating the CEQA and NEPA processes.

Planning Policy Background

The Port manages a large inventory of maritime historical resources and historic properties. In 1997 the Port of San Francisco prepared a historic resources survey and database of its properties as part of the preparation of a comprehensive Waterfront Land Use Plan (Waterfront Plan). This survey level historic analysis of waterfront resources determined numerous Port facilities eligible for listing in the NRHP¹. The survey level historical analysis determined Pier 36 ineligible for the NRHP because it lacked sufficient physical integrity. The Port's historic resources survey however did not evaluate the Bulkhead Wharf because it had yet to be recognized as a resource separate from the Seawall which had previously been determined eligible for the NRHP.

Most of the Port's piers and sheds were built in the 1910's to 1930's, predating seismic, structural, environmental and regulatory requirements that apply to new projects. The costs associated with such improvements dictated the need for policies and land use regulations that would allow a broad range of allowable land uses, including those that generate significant revenue to finance rehabilitation. Prior to the Waterfront Plan, policies of the San Francisco Bay Conservation and Development Commission (BCDC), a state agency with jurisdiction over the San Francisco Bay and within 100 feet of the shoreline, effectively blocked any such major historic rehabilitation.²

¹ Port of San Francisco Historic Resources Data Base, prepared by Architectural Resources Group, Inc. 1996.

² BCDC's "Replacement Fill Policy" effectively foreclosed any major structural or seismic repairs that would extend the useful life of the Port's historic pile-supported piers, which was considered by BCDC to perpetuate Bay fill, and contrary to BCDC's mandate to remove fill from the Bay. Under the policy, major repairs were restricted to piers that were in exclusive maritime-related use. Alternatively, restaurants, or similar "water-oriented commercial recreation" uses could be permitted on a repaired pier as long as the project matched each square foot of the commercial recreation use with one square foot of public access, or one square foot of fill removal. Also known as the "50 Percent Rule", the practical reality was that the Port would have to remove one-half of the pier as part of any effort to fully rehabilitate the pier, a concept that conflicted with the Port's historic preservation policies. Moreover, the use restrictions made it impossible to generate the revenues necessary to support the structural and seismic repair requirements.

To address these conflicting state and local plan policies, the Port and BCDC conducted a joint waterfront planning process to define a new strategy that provided a balanced approach to meet many of the objectives of the Waterfront Plan, in concert with BCDC's key mandates: to improve and protect San Francisco Bay by removing Bay fill and creating major new public access improvements along its shore. One of the objectives of the Waterfront Plan was to define appropriate land uses and regulations to enable it to attract and/or finance waterfront development improvements, including historic rehabilitation of several pier resources. The Port and San Francisco citizenry added historic preservation protections to the list of planning objectives.

The result of that coordinated planning effort gave rise to new policy and regulatory approaches in both plans which recognized and supported historic preservation and rehabilitation efforts, allowed a broader range of land uses in new waterfront development, and designated locations where major new public parks, plazas and expansion of open Bay waters would be created and financed by the Port. The commitments were memorialized in amendments approved by the Port Commission of its Waterfront Plan, and amendments to BCDC plans. To respond to BCDC's objectives to expand open waters of the Bay and create major new public access for enjoyment of the waterfront, the amended Waterfront plan called for removal of the Pier 36, the remnants of Pier 34, and construction of the Brannan Street Wharf, a significant new waterfront public park. The policy basis for the proposed pier removal in this area of the waterfront was in part a function of the need for new open space in the South Beach area of the waterfront to serve the residential neighborhood and the previous determination that Pier 36 was ineligible for listing in the **NRHP**

The amended Waterfront Plan also included policies to evaluate resources for eligibility to the NRHP as an historic district. This policy also addressed the concerns of the historic preservation community about the need to recognize and preserve the Port's maritime resources in the northeastern waterfront. It also was recognized that the creation of a National Register Historic District would increase the economic feasibility of future Port rehabilitation projects by providing private development partners with access to preservation incentives like Federal Rehabilitation Tax Credits and the use of the State Historical Building Code (**Figure 2 - Embarcadero Historic District Map**).

The Port carried out in-depth historic analysis and documentation to support the preparation of the nomination of the Historic District to the N RHP. That later research determined that both Pier 36 and the Bulkhead Wharf to be contributing resources to the Historic District, contrary to the findings of the 1996 historic resource survey information. Thus, it was after the BCDC/Port planning process was concluded that it was discovered that Pier 36 and the Bulkhead Wharf were contributing resources to an historic district. In 2006 the Port submitted the Historic District nomination for the three-mile section of the waterfront between Pier 45 at Fisherman's Wharf and Pier 48 at China Basin, to the California Office of Historic Preservation (OHP) and the National Park Service (NPS). The district nomination included numerous contributing resources including Pier 36 and all but six of the 21 sections of the bulkhead wharf. The nomination was accepted by the OHP and NPS and the Historic District was listed in the NRHP in May of 2006.

The creation of the Historic District has resulted in the Port's development of a broad waterfront historic preservation program including the Port Commission's adoption of a policy requiring the use of the Secretary of the Interior's Standards for the Treatment of Historic Properties (Secretary Standards) for its holdings, showcasing rehabilitation projects on the waterfront. To date the Port has partnered with private development interests to complete three major rehabilitation projects including the Ferry Building, Pier 1 and Piers 1-1/2, 3 & 5. These projects meet the Standards in the Rehabilitation category and were certified by NPS to receive Federal Rehabilitation Tax Credits. The Port is currently working on a fourth project with the Exploratorium, a nonprofit science museum that will lease Piers 15 and 17 on a long-term basis and rehabilitate them to accommodate their use on the waterfront utilizing Federal Rehabilitation Tax Credits. Additionally, the Port developed guidelines that provide specific detailed approaches for the maintenance, repair and alteration of waterfront resources that received OHP support as appropriate treatments consistent with the Standards.³ The Port's preservation policies and guidelines requiring consistency with the Standards have increased the Port's sensitivity to the treatment and conservation of historic resources in all areas of its operations including capital planning, leasing, maintenance, repair, alteration and new construction within the

³ Port of San Francisco, Historic Preservation Review Guidelines for Pier and Bulkhead Wharf Substructures, adopted January 2006.

Historic District.

Recognizing the need to supplement and expand the body of information on individual resources contained in the Historic District nomination the Port Commission also adopted a policy requiring the preparation of labor and workplace history, by a qualified historian, as part of its major rehabilitation projects. To date the Port has embarked on two such reports for Piers 36 and Piers 15 & 17 which provide a comprehensive look at the labor history and work place experience at each facility during the Historic District's period of significance. This work has and will continue to expand the body of historical information that exists about the waterfront, and may result in further consideration of this historical information at the early planning and design phase of future rehabilitation projects to capture this historic information before contributing resources are, altered. Additionally, this additional research may provide an enhanced understanding of the relationships between historic functions and work performed in these facilities, and how they evolved to accommodate tenants and changes in cargo handling and transportation.

Project Description

The proposed Brannan Street Wharf would provide a new 57,000 square-foot public open space park on the bay on a newly constructed 60,300 square-foot pile-supported deck. The proposed open space would be landscaped and improved to provide a major new public amenity for passive recreational enjoyment in the South Beach area of the waterfront (Figure 3 – Brannan Street Wharf Site Plan and Design Concept). Brannan Street Wharf would be triangular in shape, generally oriented in a north-south configuration, connecting to the seawall alongside The Embarcadero Promenade. The north end of the wharf would begin south of Pier 30-32, extending south approximately 830 feet to a point south of Pier 36. The park would be triangular in shape and would range from approximately 10 feet in width at its narrowest point at the north end, widening to approximately 140 feet in width at the south end. The new wharf would consist of a deck constructed of a mixture of reinforced concrete deck and a cast-in-place architectural finish slab supported by precast concrete driven piles. The approximately 400 precast concrete supporting piles would be 24-inches in diameter and octagonal shaped, and would be driven to depths of over 60 feet below the

bay floor. The wharf structure would cantilever over the existing seawall and interface with the existing Embarcadero Promenade.

The main components of the project include a 400 foot long lawn area, a waterside walkway with seating, shade-sheltered picnic/game tables, and a portal structure that serves as the entry to a small float and ramp for launching and landing small human-powered craft (e.g. kayaks, row boats), designed to meet Americans with Disability Act (ADA) requirements. The landscape design is mostly flat with the lawn laid in a raised planter about 18 inches in height, which also serves as a seating wall for the public. The wharf would also include the construction of an interpretive exhibit at the south end that would include images and text on the history of the project site and waterfront. The lawn area would accommodate a variety of passive recreation uses. The openness of the design is intended to orient the park toward the bay, as well as the adjacent South Beach neighborhood.

Pier Demolition

Pier 36 is approximately 200 feet wide and 740 feet long, extending perpendicularly from The Embarcadero. The existing pier platform is an approximately 86,000 square-foot, steel and concrete structure supported on approximately 420 42-inch diameter concrete and steel cylinders (caissons) (Figure 4 – 1909 Floor Plan and South Elevation of Pier 36) Atop this platform is a concrete pier shed building of approximately 35,000 square-feet. The existing pier shed and supporting pier platform would be removed, and the supporting caissons cut at the mud-line and removed. At the east end of the pier there was an approximately 47,000 square-foot timber wharf extension that was used for rail ferry operations, which has collapsed into the Bay due to extensive deterioration. The remaining accessible wood deck and piles would be removed to the mud-line. Pier 36 and its north and south aprons, as well as the bulkhead wharf that connects it to the Embarcadero are all structurally deficient resulting in these facilities being fenced off for public safety by the Port's Chief Harbor Engineer due to their hazardous condition.

Bulkhead Wharf Demolition

The bulkhead wharf is an approximately 25 foot wide concrete and steel wharf supported on a mixture of concrete and timber piles that connects the seawall and piers. In locations where there are no piers or bulkhead

buildings, the bulkhead wharf provides a useable open air platform which historically supported maritime functions associated with the piers and the waterfront at large. Between the southern edge of Pier 32 and the northern edge of Pier 38, the bulkhead wharf is approximately 18,800 square feet and approximately 940 feet long. The proposal would result in the loss of the bulkhead wharf as follows:

- Section 11a (the northern 178 lineal-feet of the 281 foot structure)
- Section 11 (all 353 lineal-feet)
- Section 12 (the northern 337 lineal-feet of the 1,167 foot structure)

The majority of the wharf was condemned in 2004 by the Port's Chief Harbor Engineer, due to the severely deteriorated deck and pilings. The footprint of the new Brannan Street Wharf would replace approximately 740 lineal feet of bulkhead wharf and the proposed new wharf would connect directly to the existing seawall and Embarcadero promenade. This portion of the proposed new wharf would function similar to the existing wharf in that it would provide a continuous walking surface for the public to access the Brannan Street Wharf from the promenade.

Seawall Repair

Approximately 868 lineal-feet of the existing concrete seawall would be repaired or altered as necessary to maintain structural integrity. The concrete seawall is supported with timber piles and supported on a rock dike. The wall is in fair condition and requires periodic maintenance to repair cracks, and to accommodate the interface with the new Brannan Street Wharf structure. Repair of the seawall will include sealing cracks and patching spalls in the concrete wall. It may additionally require installation of new piles, tie-backs, and/or new concrete overlay on the face of the wall or riprap to maintain structural integrity.

Area of Potential Effect

The project site is occupied by Pier 36 and bulkhead wharf which is attached to the seawall and runs parallel to The Embarcadero, between the Piers 30-32 complex and Pier 38 (**Figure 5 – Map of the Area of Potential Effect**).

Pier 30-32, is a 475, 000 square-foot pier currently used for parking, special events and provides cruise ship berthing to supplement the Port's cruise terminal operations at Pier 35. Pier 30-32 was the location for the proposed Bryant Street Pier Cruise Terminal and a Mixed Use Development, part of a Port public-private development proposal in 2001, which was conceived in concert with the creation of the Brannan Street Wharf. While the project secured all required government approvals, the construction costs to repair and improve Pier 30-32 became economically infeasible, and the developer terminated the proposed project; the Port now proposes development of Brannan Street Wharf component of the project with the assistance of the Army Corps. During the preparation of the Embarcadero National Register Historic District nomination, the Piers 30-32 complex was evaluated and determined ineligible as a contributing resource within the Historic District due to a lack of integrity; it is therefore located outside the Historic District boundary.⁴

To the south of the project site are Piers 38 and 40, both contributing resources within the Historic District that accommodate recreational boating support uses. Portions of Pier 38 have been rehabilitated by the lessee consistent with the Secretary Standards. Pier 40 has also been rehabilitated consistent with the Secretary Standards as part of the implementation of the Rincon Point-South Beach (RPSB) Redevelopment Plan. To the west is the low- to mid-rise contemporary South beach neighborhood with residential uses above ground-floor commercial uses. Between Bryant and Brannan Street on the west side of the Embarcadero is a surface parking lot (**Figures 6**, **7**, **8**, **9** & **10** – **Photographs of Area of Potential Effect**).

The project's Area of Potential Effect (APE) has been defined by the location of the individual contributing resources that would be demolished within the project site to prepare for the new construction, and an assessment of the localized visibility of the existing resources and the proposed new construction. Based on these factors the APE has been defined as the area bounded by Piers 30-32 on the north, Pier 38 on the South, properties fronting the west side of the Embarcadero, between Bryant and Townsend Streets, and San Francisco Bay on the east.

⁴ Port of San Francisco Embarcadero Historic District, National Register nomination, Section 8 Significance, Integrity pages 212-215, January 2006.

Historic Properties

There are four contributing resources and portions of the Historic District within the APE. A summary description of the Historic District is provided below, followed by the description of the four contributing resources within the project site.⁵

Port of San Francisco Embarcadero Historic District

The Historic District consists of three miles of waterfront including over 20 piers and remnants of piers, a bulkhead wharf in 21 sections, a seawall, the Ferry Building, the Agriculture Building, and a collection of smaller buildings. The Historic District is listed in the National Register of Historic Places under the following criteria in each of the subject areas, for the periods of significance identified below:

Criterion A (History)

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Government — 1878-1946 (state level of significance)

Commerce — 1878-1946 (national level of significance)

Transportation — 1878-1946 (national level of significance)

Labor — 1934 (national level of significance)
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Criterion B (Significant People)

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Labor — 1934 (national level of significance)
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Criterion C (Engineering and Design)

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Engineering — 1878-1946 (national level of significance)
Architecture — 1898-1903, 1912-1938 (local level of significance)
Community Planning and Development (1878-1938) (local level of significance)
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⁵ Port of San Francisco Embarcadero Historic District, National Register nomination, Section 7 Resource Description Summary, January 2006.

Within the boundaries of the District, the majority of resources are contributing and in some instances are individually listed in the National Register (**Figure 2 – Embarcadero Historic District**). District resources include the following:

Contributing

Seawall (approximately three miles in length):

From Pier 45 to China Basin at Pier 48

Bulkhead Wharf (approximately three miles in length):

Pier 45 Section

Section 2

Section 3

Section 4

Section 5

Section 6

Section 7

Section 8a

Section 8b

Section 8

Section 9

Section 10

Section 11a

Section 11

Section 12

Pier 48 Section

(Figure 11 – Transverse Section of Seawall and Bulkhead Wharf and Figure 12- Seawall and Bulkhead Wharf by Section). Piers and Buildings:

Pier 45

Pier 43 (Car Ferry Headhouse)

Pier 35

Pier 33

Pier 31

Pier 29

Pier 29 Annex (Belt Railroad)

Pier 23 Restaurant

Pier 23

Pier 19

Pier 17

Pier 15

Pier 9

Pier 5

Pier 3 (including Pier 1½)

Pier 1

Ferry Building

Agriculture Building

Fire Station 35 (at Pier 22½)

Pier 24 Annex

Pier 26

Pier 26 Annex

Pier 28

Pier 28½ Restaurant

Pier 36

Pier 38

Pier 40

Java House Restaurant, near Pier 40

Pier 48

Non-contributing resources are as follows:

Bulkhead wharf Section B

Franciscan Restaurant, near Pier 43½

Bulkhead wharf Section A

Pier 41½ (portion on bulkhead wharf)

Bulkhead wharf Section 1

Pier 39 (portion on bulkhead wharf)

Pier 29 Office building

Pier 27 Terminal

Pier 15-17 Quay

Terminal Office Building, Pier 15-17

Pier 7 (Waterfront Restaurant)

Bulkhead wharf Section 13

Pier 46 Bulkhead Wharf Section

The following contributing resources or portions thereof, are located within the project site:

The (1878 - 1915) Seawall - Contributing Resource

The seawall is the foundation upon which the waterfront was constructed and is recognized as two contributing resources one north and one south of China Basin. The seawall, a linear embankment of stone, concrete, and wood was constructed between 1878 and 1915 in 21 sections that join end to end and are integrated with the bulkhead wharf to form a continuous unifying structure throughout the Historic District. This seawall consists of a pile of rocks, called a rock embankment, rising from a trench that was originally dug 20 feet deep and 100 feet wide. At mean high water, the embankment rises almost 40 feet above its base. The natural slopes of the embankment on either side rise to a flat top about ten feet wide. The outer toe of the sloping bay side of the embankment is located close to the water front line as defined by the Army Corps of Engineers. Concrete piles driven through the rock embankment from the toe to the inside edge of the flat top support a wood wharf called a bulkhead wharf, generally ranging from 27 to 60 feet wide. By this means a useable surface was created over the sloping seawall to the edge of the water front line.

Section 11a – Contributing Resource

Section 11a of the bulkhead wharf, stretching 281 feet along the Embarcadero was built in 1912-1914 together with Piers 30-32. The piles and decks of the bulkhead wharf are constructed of reinforced concrete and paved surfaces of asphalt. Built in part for access to Pier 32, Section 11a never supported a bulkhead building. The transit sheds on Pier 30-32 were destroyed by fire in 1984. Apart from this, Section 11a of the bulkhead wharf appears largely intact and maintains a moderate degree of integrity. Alterations appear to be limited to replacement of the asphalt paving and removal of Belt Railroad tracks.

Section 11 – Contributing Resource

Section 11 of the bulkhead wharf is 25 feet in width and stretches 353 feet along the Embarcadero and was built in 1909-1910. The piles and decks of the bulkhead wharf are constructed of reinforced concrete and wood encased in reinforced concrete, and paved with asphalt. Section 11 of the bulkhead wharf was built for Pier 34, the pile remnants of which were demolished in 2001. Section 11 of the bulkhead wharf appears largely intact and maintains a moderate degree of integrity. Alterations appear to be limited to replacement of the asphalt paving and removal of Belt Railroad tracks.

Section 12 – Contributing Resource

Section 12 of the bulkhead wharf is 24 feet in width and stretches 1,167 feet along the Embarcadero, consists of two separate structures, each completed in 1909. The structures are of similar design and constructed of steel and reinforced concrete, with wood encased in reinforced concrete piles, concrete and steel decks, and paved with asphalt. The north portion of the wharf was built for Piers 36 and 38; the south portion was built for Pier 40. Section 12 of the bulkhead wharf appears largely intact and maintains a moderate degree of integrity. Alterations appear to be limited to replacement of the asphalt paving and removal of Belt Railroad tracks.

Pier 36 – Contributing Resource

Pier 36 is the third in a group of three piers (including Pier 38 and Pier 40) built of reinforced concrete in 1908-1909 — all originally without decorated pier fronts. Construction of this group of piers marked the beginning of the modern reconstruction of the port. The substructure and transit shed of Pier 36 constitute the third oldest pier on the waterfront and an early example of reinforced concrete construction by the Board of State Harbor Commissioners. The pier's original purpose was as a freight ferry facility for Western Pacific Railroad cars. To serve in this capacity, it was built with a wooden ferry slip at its east end. In 1917 the transit shed was extended westward to the edge of the bulkhead wharf. Unlike other pier buildings on the bulkhead wharf, Pier 36 did not have an ornamented front. Offices were built within this extension in 1933. Analysis of historic aerial photos indicates that the ferry facilities and outer wood portions of the pier deteriorated and were largely removed by 1962.

Pier 36, along with the other contributing piers in the Historic District, is associated with the nationally significant 1934 General Strike. However, it was Pier 38 that was the location of the decisive battle that took place on July 5, 1934 between strikers and police, known as Bloody Thursday. There are no known accounts of strike related incidents directly tied to Pier 36 although there are direct connections to Piers 40 and 41, as well the Garcia Maggini Warehouse at 128 King Street, outside the Historic District near the intersection of King and 2nd Streets.

Substantial parts of Pier 36 have been lost, including the outboard wooden portion of the pier and transit shed and the hoisting tower, at least 70 percent of the pier as it was developed in the period of significance remains intact (approximately 74 percent of the area once covered by transit sheds remains and approximately 73 percent of the deck area over the original substructure remains). The entire steel and concrete in-board portion of the transit shed, designed by H. J. Brunnier, and the 1917 extension westward to the bulkhead wharf survive — the reinforced concrete portions being early examples in San Francisco and at the Port. The outboard wood portion of the transit shed with its wood substructure no longer survives. Pier 36 lacks most of its rail car ferry facilities, but retains the unique wide south deck/apron that was an important part of its rail car ferry operations. Pier 36 and Pier 43, near Fisherman's Wharf, are the two pier structures that accommodated rail car ferries within the Historic District.

Assessment of Adverse Effects

The proposed undertaking would result in a significant adverse effect on the following four contributing resources within the historic district because it would result in their physical destruction, damage or alteration, in whole or in part:

- Pier 36 (substructure, pier deck and superstructure/transit shed)
- Bulkhead Wharf Section 11a (the northern 178 feet of the 281 foot structure)
- Bulkhead Wharf Section 11 (the entire 353 foot section)
- Bulkhead Wharf Section 12 (the southern 337 feet of the 1,167 foot structure)

Pier 36 contributes to a concentration and continuity of contributing resources

within the South Beach portion of the District and its integrity of location, design, setting, materials, workmanship, feeling and association. During the research, analysis and evaluation of integrity of the District the previous cumulative loss of historic resources was considered.

- Pier 24 burned in the early 1990's
- Piers 30-32 merged in the 1950's and shed structures burned 1984
- Pier 34 remnant piles (located outside the district) demolished by the Port in 2001
- Pier 40 bulkhead and shed partially demolished between 1975 and 1983.
- Pier 46 demolished in 1997 for the construction of AT&T Ball Park
- Section 13 of the bulkhead wharf lost its maritime character due to the construction of Rincon Park in 2000.

Despite these cumulative losses OHP, the State Historical Resources Commission and NPS determined that this three-mile potion of the waterfront qualified as a contiguous National Register Historic District because it maintains a significant degree of maritime industrial character, and concentration of contributing resources from the Period of Significance, 1878 to 1946. Of particular significance, the seawall and bulkhead wharf form a continuous structure that unifies the sub-areas of the waterfront into one large diverse historic district

The proposed loss of additional contributing resources in the South Beach portion of the district would further diminish the District's integrity of design, setting, materials, workmanship, feeling and association. However, because the District is so large, maintains a relatively high level of integrity and contains numerous contributing resources, especially the seawall and bulkhead wharf which are extensive (approximately 21 sections and three miles in length) the proposed demolitions would not result in a significant adverse effect on the district. The unifying function of the seawall and bulkhead wharf help to reduce the impact of the proposed demolitions by providing a continuity of contributing resources that visually express the Historic District. The integrity of the Historic District is strongest in the areas where contributing pier resources, the Seawall and Bulkhead Wharf are extant. However, the presence of the Seawall and Bulkhead Wharf throughout the Historic District maintains a sufficient level of integrity in

areas with fewer contributing pier resources such that the proposed additional loss of these four resources would not significantly change the overall form and character of the district to the extent that its integrity would be compromised.

In addition, the adverse effect of the project on the Historic District would also be reduced by the Port's historic preservation program, policies and stewardship. Consistent with its public trust responsibilities and the policies of the Waterfront Plan and BCDC Special Area Plan, the Port would continue its preservation stewardship of the Historic District as previously discussed. This stewardship would be promoted through the following:

- Port Commission policy requiring evaluation of Port and Non-Port projects in the Historic District for consistency with the Secretary Standards.
- The Port would continue its 10 Year Capital Plan efforts to identify capital improvement needs and funding to provide a program and schedule of ordinary maintenance and repair of facilities within the Historic District.
- The Port would continue to include public-private partnerships as an important tool to undertake significant rehabilitation projects on the waterfront utilizing Federal Rehabilitation Tax Credits, and other available preservation incentives.

Alternatives

The design of the proposed Brannan Street Wharf, although inconsistent with the general pattern of perpendicular piers radiating out from the seawall, would otherwise be generally compatible with the Historic District in terms of its proposed character, pile supported design, materials and function. The project would have a positive effect on the residential neighborhood on the landside of the Embarcadero to the west by removing Pier 36 which is deteriorated and covered with graffiti and providing a new major public park that would be readily accessible to neighborhood residents. For the purposes of determining whether there are project alternatives that would avoid or reduce the adverse impact on historic resources resulting from their proposed demolition and new construction, the Port in accordance with applicable CEQA and NEPA environmental regulations, has analyzed the feasibility of

the following project alternatives:

These project alternatives have been analyzed by the Port in the Pier 36/Brannan Street Wharf Draft Environmental Impact Report prepared in accordance with CEQA and rejected by the Port for the following reasons:

No Project

The No Project alternative would be feasible and avoid the projects impacts on historic resources but would not meet the Port's objectives of the project as follows:

- 1. to provide a major public park in the South Beach Waterfront,
- 2. to implement the objectives of the Waterfront Plan Design & Access Element to create a network of diverse waterfront public open spaces that complements waterfront development and rehabilitation,
- 3. to remove blight,
- 4. to work in partnership with BCDC to remove San Francisco Bay fill, create open water basins, provide high quality public access and public views of the Bay, for the enjoyment of the San Francisco Bay Area and San Francisco residents, workers and visitors.

Preservation Alternative

The preservation alternative would retain Pier 36 in its entirety and rehabilitate the facility consistent with the Secretary Standards to accommodate a maritime or light industrial use. Additionally the Bulkhead Wharf would be reconstructed, rather than rehabilitated, within the existing footprint consistent with the Secretary Standards because the wharf is deteriorated beyond repair and the existing design of the facility does not meet current code and public safety standards.

The preservation alternative would also construct the Brannan Street Wharf to be reconfigured to provide approximately 57,000 square-feet of public open space on a rectangular shaped pile supported platform that would be consistent with the perpendicular orientation of the contributing pier resources throughout the Historic District that radiate outward from the Seawall and Bulkhead Wharf.

This alternative is technically feasible, consistent with the Port's project objectives 1, 2 and 3 as stated above and would avoid the project's significant and unavoidable impacts on historic resources. However, this alternative would only be partially consistent with the Port's fourth objective as stated above because it does not support the partnership with the BCDC to implement shared public open space objectives that remove Bay fill and would be financially prohibitive at a cost of \$51.5 million.

Archeological Resources

The proposed wharf construction, including the driving of 400 new piles to an approximate depth of 60 feet below the floor of the bay has the potential to impact archaeological resources within the boundaries of the project site. Because the project would occur on formerly submerged tidelands under the jurisdiction of the California State Lands Commission (CASLC) Port staff has consulted with the San Francisco Planning Department Archaeology Staff to determine the sensitivity of the site for recorded shipwrecks at this location as a means to determine the probability of encountering archeological resources as a result of the proposed pile driving activities. The Port has also consult with the Northwest Information Center at Sonoma State University regarding the archeological sensitivity of the site. Consultation with these archeology experts has resulted in the development of appropriate mitigation measures based on the archeological sensitivity associated with the project site. The Port would be required to implement these Archaeology Mitigation Measures as set forth in the project EIR. The Port anticipates that following these measures would be adequate treatment of archaeology for purposes of compliance with NEPA and would work with the Army Corps to incorporate consistent measures in any proposed agreement documents executed pursuant to Section 106. Such mitigation measures would include but not be limited to archeological testing, monitoring and recovery and curation as deemed appropriate by the Army Corps in consultation with OHP and other consulting parties.

Compatibility of Brannan Street Wharf with Historic District

Certain aspects of the proposed Brannan Street Wharf would be compatible with the Historic District as follows:

- 1. The new wharf would provide a continuous promenade at the water's edge maintaining the function of the existing bulkhead wharf prior to its closure.
- 2. The design of the new wharf would be simple, contemporary, functional and constructed of durable materials with an industrial character.
- 3. The new wharf would share some of the character defining features of the existing wharves including, but not limited to elevation, a cantilevered pile supported deck structure attached to the seawall, projection out over the bay, and maritime use.
- 4. The new wharf would provide unobstructed views of the bay and Pier 38 to the south from the promenade and open space and enhancing the pedestrian experience at this location from the Embarcadero promenade.

Pier 36, in its current condition, has the potential to damage the seawall and bulkhead wharf, to which it is attached, in a seismic event, and ultimately could threaten the integrity of these contributing resources. The proposed removal of Pier 36 and construction of the proposed Brannan Street Wharf would maintain public health and safety by removing four structurally deficient structures on the waterfront, as well as reduce potential seismic threats to the seawall by incorporating a structural system for the proposed wharf that would allow it to move independent of the Seawall in a seismic event. The proposed construction of the Brannan Street Wharf also presents a unique opportunity to exhibit and interpret the history and significance of Pier 36, the Bulkhead Wharf and the Historic District.

Project Reviews and Approvals

The project would require review/approvals from the following regulatory agencies:

• San Francisco Historic Preservation Commission review and comment on draft Environmental Impact Report (EIR) and Section 106 consultation pursuant to the Certified Local Government (CLG) program agreement with OHP

- San Francisco Planning Commission (Certification of the EIR)
- Port Commission approval of CEQA findings, final design and project construction, and expenditure of funds and execution of agreement documents as required by the Army Corps
- Army Corps Section 106 and NEPA
- Army Corps permit for construction within the intertidal zone
- San Francisco Bay Conservation and Development Commission approval of a permit for construction of the Brannan Street Wharf
- San Francisco Regional Water Quality Control Board approval of "401" Water Quality Certification
- Port Issuance of Building and Encroachment Permits

Mitigation Measures

To assist the Army Corps and OHP to complete the Section 106 consultation, the Port has identified potential mitigation measures to reduce the significant adverse effects of the project on the character and integrity of the Historic District. The following mitigation measures specifically identified by the Port to reduce the adverse impacts of the project on historic resources in the Section 106 context are also proposed mitigations measures in the project EIR:

Archival Documentation

The Port would prepare archival quality documentation and photographs of the affected contributing resources. The HABS/HAER documentation would be prepared by a historic preservation professional that meets the Secretary of the Interior's Professional Qualifications. In addition to maintaining a copy for the Port's archives, copies of the documentation would be distributed to the following agencies and local repositories: The San Francisco Planning Department, the Main Branch of the San Francisco Public Library, The Northwest Information Center and the Bancroft Library.

Salvage of Character Defining Features

Prior to demolition of Pier 36, the Port will consult with the San Francisco Planning Department to determine whether there are character-defining elements, other than the historic neon identification sign that will be incorporated into the

design of the Brannan Street Wharf, that are of interest and that can feasibly be salvaged. The Port shall notify local recognized historic preservation organizations, such as San Francisco Architectural Heritage and the San Francisco Museum and Historical Society, of the opportunity for salvage of additional elements of the resource.

Brannan Street Wharf Design

The proposed Brannan Street Wharf would include an interpretive exhibit wall at the south end of the wharf to commemorate the site's historical significance as the site of early Chinese immigration, Pier 36's general association with the General Strike of 1934 and the labor/work place history of the former rail pier. The exhibit would be prepared in response to regulatory requirements as well as community interest and would provide an additional historical interpretation exhibit within the Historic District, as well as an important amenity within the new park. Additionally, the Port proposes to salvage and incorporate the historic neon Pier 36 identification sign in the new portal entry to the proposed launch/landing facility and to install rail markers in the new deck to commemorative the location of the historic rail spur into the design and construction of the Brannan Street Wharf.

Archaeology

Consistent with the project EIR the Port proposes to implement the following archaeology mitigation measures. In addition, the Port will consider additional measures that may result from the Section 106 process to respond to Army Corps, OHP and other consulting party comment:

Based on the reasonable potential that archaeological resources may be present within the Project site, the Port shall distribute the Planning Department archeological resource "ALERT" sheet to the project prime contractor; to any project subcontractor (including demolition, excavation, grading, foundation, pile driving, etc. firms); or utilities firm involved in soils disturbing activities within the Project site. Prior to any soils disturbing activities being undertaken each contractor is responsible for ensuring that the "ALERT" sheet is circulated to all field personnel including, machine operators, field crew, pile drivers, supervisory personnel, etc.

Should any indication of an archeological resource be encountered during any soils disturbing activity of the project, the project Head Foreman and/or

Project Sponsor shall immediately notify the ERO and shall immediately suspend any soils disturbing activities in the vicinity of the discovery until the ERO has determined what additional measures should be undertaken.

If the Planning Department's Environmental Review Officer (ERO) determines that an archeological resource may be present within the Project site, the Project Sponsor shall retain the services of a qualified archeological consultant. The archeological consultant shall advise the ERO as to whether the discovery is an archeological resource, retains sufficient integrity, and is of potential scientific/historical/cultural significance. If an archeological resource is present, the archeological consultant shall identify and evaluate the archeological resource. The archeological consultant shall make a recommendation as to what action, if any, is warranted. Based on this information, the ERO may require, if warranted, specific additional measures to be implemented by the Project Sponsor. Measures might include: preservation in situ of the archeological resource; an archaeological monitoring program; or an archeological testing program.

Supplemental Labor/Work Place History Report

As part of its approval of the creation of the Historic District the Port Commission adopted a policy requiring rehabilitation projects to include the preparation of site specific Labor/Work Place History reports. The policy requires that the reports be prepared in conjunction with the site specific historical analysis necessary to undertake major rehabilitation projects. The Commission policy seeks to capture the detailed history of the facility use/operations, tenancies, cargos, work force and working conditions at each facility as a means to inform the rehabilitation project. These reports also serve to expand the body of waterfront history and compliment the Historic District nomination which provided a broad waterfront wide labor history context. This additional site specific research and documentation is an existing Port policy and not a mitigation measure in the project EIR.

Port Preservation Policies and Stewardship

Although not recognized as a mitigation measure under CEQA the Port's preservation policies and stewardship would promote the preservation of the Historic District by addressing the maintenance, repair and rehabilitation of its contributing resources through the use of its Capital Planning process, the

Secretary Standards and public-private partnerships to undertake significant rehabilitation projects on the waterfront utilizing Federal Rehabilitation Tax Credits.

Public Outreach and Interested Parties

Consistent with a well-established practice of engaging the public and waterfront stakeholders to participate in Port implementation projects, the Port convened a 15 person stakeholder panel of subject matter experts and historic preservation advocates during the multi-year preparation of the Historic District nomination. The panel members represented a variety of stakeholder interests including the following organizations:

San Francisco Architectural Heritage
The Fund for Labor History and Culture
City Planning Department
Bay Conservation and Development Commission
San Francisco Tomorrow
Telegraph Hill Dwellers
Save the San Francisco Bay
National Trust for Historic Preservation

The panel participated in extensive meetings over four years, where detailed information and research on the significance of Historic District resources including Pier 36 and the bulkhead wharf was presented and analyzed. Considerable time was spent examining the integrity of questionable resources before the panel and the Port reached consensus on their contributing or non-contributing status. As such this panel recognized that the Port and BCDC policies calling for the demolition of Pier 36 and construction of the Brannan Street Wharf was part of a comprehensive package of public benefits which included the creation of the Embarcadero Waterfront National Register District. The preservation stakeholders understood that listing Pier 36 and the bulkhead wharf sections affected by the Brannan Street Wharf project on the National Register of Historic Places would not prevent the loss of this resource when it came time to implement that public access and open space project.

For the purposes of completing the Section 106 process for this undertaking the Port will work with the Army Corps and the San Francisco Planning Department to develop an outreach plan and schedule of public notification and meetings to obtain public comment and to identify potential interested parties in accordance with 36 CFR Part 800 for the purpose of implementing the Section 106 process. In preparation for this outreach the Port has identified the following additional list of interested parties that would supplement the agencies and organizations listed above for purposes of Section 106 outreach:

San Francisco Preservation Consortium
San Francisco Historical Society and Museum
ILWU
Chinese Historical Society
California Office of Historic Preservation
San Francisco Historic Preservation Commission
Rincon Point South Beach Citizens Advisory Committee
South Beach Mission Bay Neighborhood Organization
Chris Hart, Beltline Railroad
San Francisco Maritime Museum
California Preservation Foundation

To date the Port has made presentations at meetings of SF Heritage and the Rincon Point South Beach CAC to inform these parties of the Pier 36/Brannan Street Wharf project and to make them aware of upcoming public comment opportunities afforded by CEQA and Section 106 process.

FIGURES

- 1. Location Map
- 2. Port of San Francisco Embarcadero Historic District Map
- 3. Site Plan Proposed Brannan Street Wharf
- 4. 1909 Floor Plan and South Elevation of Pier 36
- 5. Area of Potential Effect
- 6. Photographs of the Area of Potential Effect
- 7. Transverse Section of Seawall and Bulkhead Wharf
- 8. Seawall and Bulkhead Wharf by Section

Historic Property Survey Report Prepared by:

Mark Paez Historic Preservation Planner Port of San Francisco, Planning & Development



DEPARTMENT OF THE ARMY

SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS 1455 MARKET STREET SAN FRANCISCO, CALIFORNIA 94103-1398

May 11, 2011

Planning Branch (1105)

Milford Wayne Donaldson State Historic Preservation Officer Office of Historic Preservation 1725 23rd Street, Suite 100 Sacramento, California 95816

Dear Mr. Donaldson:

The U.S. Army Corps of Engineers, San Francisco District (Corps) and the Port of San Francisco (Port) have collaborated on a proposal to demolish Pier 36 and three sections of the Bulkhead Wharf located in the South Beach area of the San Francisco Waterfront. The Pier and the three sections of the Bulkhead Wharf are listed as contributing elements to the Port of San Francisco Embarcadero Historic District, listed in the National Register of Historic Places in 2006. The proposed project was initiated pursuant to Section 5051 of the Water Resources Development Act of 2007, which granted authority to the Secretary of the Army, in cooperation with the Port, to repair and remove, as appropriate, Piers 30-32, 35, 36, 70, and 80, substantially in accordance with the Port's Waterfront Land Use Plan. The current undertaking is limited to the removal and alteration of the Pier 36 waterfront structures required to accommodate the construction of a new wharf structure, the deck of which will be developed as a new public open space and park referred to as the Brannan Street Wharf proposed by the Port. The purpose of this letter is to request your comment in accordance with 36 C.F.R. Part 800.

Historic Property Survey Report

The Port, with assistance from the Corps, prepared a Historic Property Survey Report (Enclosure 1). The report includes the relevant information called for in the Section 106 process: (a) a detailed description of the undertaking, (b) selected details of the Historic District and contributing elements, (c) the undertaking's Area of Potential Effects, (d) a discussion of the effects to the Historic District from the Pier 36 work and construction of the new park, and (e) preliminary mitigation measures for use in preparing an Historic Property Treatment Plan.

The planning research for archaeological resources revealed no evidence of submerged resources in the affected offshore areas, as indicated by the results of a records search of the files of the Northwest Information Center by the Port. Indeed, submerged shipwreck sites and Native American archaeological sites have been discovered in the Bay generally. In addition, there have been waterfront-development projects that have encountered buried resources. It is therefore assumed such unrecorded resources may exist in the area of potential effects and undisturbed sediments may be affected. Because of the past major disturbance with pier construction and the

infrequency of these discoveries along this portion of the waterfront, we believe that the pile driving for this undertaking has little potential to encounter such resources. The Port and the Corps agree that the two agencies shall develop a plan to protect cultural resources discovered in submerged sediments during the course of construction.

Background of the Undertaking

The Historic Property Survey Report presents background information about the local and State planning efforts that led to the adoption of policy requiring the removal of Pier 36 to create new waterfront open space and accommodate the proposed construction project. The Port's planning effort relied on a survey-level historical analysis conducted in 1996 that concluded Pier 36 was not eligible for listing in the National Register of Historic Places as an individual property. Subsequent to the policy decision, the Port completed the nomination of the Historic District, which identified Pier 36 and the Bulkhead Wharf as contributing elements to the Historic District.

The Corps understands that the Port, the California Office of Historic Preservation, and representatives of San Francisco's environmental and historic preservation communities collaborated closely on the National Register nomination of the Historic District, and that the participants were apprised of the need to remove Pier 36 and modify the Bulkhead Wharf when the nomination was undergoing formal review. At that time, the Port conveyed to the parties that it would comply with the State and Federal environmental review requirements and proceed with demolition of the contributing elements to prepare the site for the construction of the Brannan Street Wharf project. In accordance with the California Environmental Quality Act, the Port has prepared a draft Environmental Impact Report (EIR) for the Brannan Street Wharf project, which was released for public review in January 2011. The San Francisco Planning Department is preparing the Comments and Responses portion of the EIR and proposes to return to the Planning Commission in June 2011 for approval of the Final EIR. In addition, the Corps is preparing an Environmental Assessment of the Pier 36 removal and associated work to comply with the National Environmental Policy Act.

Determination and Resolution of Adverse Effects

In accordance with 36 C.F.R. § 800.5(a)(1), the Corps, in concert with the Port, has made several findings. We have determined that removal of Pier 36 and the three sections of the Bulkhead Wharf constitute adverse effects to the individual maritime properties. Specific mitigation measures are included in the EIR and proposed as part of a Historic Property Treatment Plan in response to the effects on these individual resources. However, despite the loss of these four contributing elements, it appears that there would not be an adverse effect to the Historic District. The Historic District would retain sufficient presence of the Bulkhead Wharf, and combined with the continuity of the remaining contributing pier and wharf structures, it would still convey the historical character of the Historic District during the period of significance. Lastly, it was concluded that the Brannan Street Wharf project, although not

consistent with the general pattern of rectangular shaped piers radiating out perpendicular from the seawall, is otherwise generally compatible with the Historic District in terms of its proposed character, pile-supported design, materials, and function. For example, the Brannan Street Wharf project is a wedge-shaped park, has a simple contemporary landscape design with a cantilevered, pile-supported deck structure that is attached to the seawall and projecting out over the Bay, characteristics that are compatible with the Historic District. In addition, the design incorporates materials compatible with the maritime industrial character of the Historic District.

In accordance with 36 C.F.R. § 800.6(a), we would like to proceed with consultation. Given the background of historic preservation planning and the advanced design of the undertakings, the Corps and Port suggest that avoiding adverse effects is not possible and that mitigation measures to resolve the adverse effects to the contributing elements is appropriate. We plan to notify the Advisory Council on Historic Preservation of the adverse-effects determination per 36 C.F.R. § 800.6(a)(1). At this time, we believe that the Council's participation in the Section 106 review is not needed for this undertaking.

Public Review and Comment

The Port has solicited public and agency comment regarding the proposal to remove and alter some of the Historic District's contributing elements and construction of the new park and open space. No comments relevant to historic properties were received through the State Clearinghouse review process. San Francisco Architectural Heritage (Heritage) and the City of San Francisco Historic Preservation Commission (HPC) submitted comments in response to the draft EIR. Their letters are presented as Enclosure 2. At this time, the Port and the Corps are considering the Heritage and HPC suggestions and recommendations, and we anticipate future meetings with the organizations pursuant to 36 C.F.R. § 800.6(a)(4).

Richard Stradford is available at (415) 503-6845 and <u>richard.stradford@usace.army.mil</u> to answer any questions you may have. I look forward to receiving your comments.

Sincerely,

J' In Arijs A. Rakstins

Deputy for Project Management

Enclosures



DEPARTMENT OF THE ARMY

U.S. ARMY CORPS OF ENGINEERS, SAN FRANCISCO DISTRICT 1455 MARKET STREET SAN FRANCISCO, CALIFORNIA 94103-1398

August 3, 2011

Programs and Project Management Division

Reid Nelson Office of Federal Agency Programs Advisory Council on Historic Preservation 1100 Pennsylvania Avenue, NW, Suite 803 Old Post Office Building Washington, DC 20004

Dear Mr. Nelson:

In accordance with 36 C.F.R. § 800.6 (a) (1), this letter serves as notification to the Advisory Council that the San Francisco District, Corps of Engineers, has determined its proposed demolition of Pier 36, the transit shed, and three sections of the Bulkhead Wharf along the San Francisco Waterfront would be an adverse effect. Pier 36, the transit shed, and the Bulkhead Wharf are contributing elements to the Port of San Francisco Embarcadero Historic District, listed in the National Register of Historic Places in 2006. Please see the attached Section 106 Historic Property Survey Report that provides the information required by 36 C.F.R. § 800.11 (e) (Enclosure 1).

The Corps' proposed demolition project was initiated pursuant to Section 5051 of the Water Resources Development Act of 2007, which granted authority to the Secretary of the Army, in cooperation with the Port of San Francisco, to repair and remove several piers substantially in accordance with the Port's Waterfront Land Use Plan. The Corps' undertaking is required to accommodate the construction by the Port of the Brannan Street Wharf project, a new public open space and park.

In May 2011, the San Francisco District wrote to the California State Historic Preservation Officer (SHPO) and submitted documentation to begin Section 106 consultation. The Corps had determined that removal of the pier and bulkhead elements constituted an adverse effect to the individual waterfront properties. Despite the loss of these four contributing elements, the Historic District would retain sufficient presence of the Bulkhead Wharf, and combined with the continuity of the remaining contributing pier and wharf structures, it would still convey the historical character of the Historic District during the period of significance. The Corps is currently addressing the SHPO's request to clarify information and provide supplemental data.

The Brannan Street Wharf project would introduce new construction, but it was found to be generally compatible with the Historic District in terms of its proposed character, pile-supported design, materials, and function. The Brannan Street Wharf was designed as a wedge-shaped park, using a simple contemporary landscape design with a cantilevered, pile-supported deck structure that is attached to the seawall and projects out over the Bay. These characteristics are considered compatible with the Historic District, since the design incorporates materials compatible with the waterfront's maritime industrial character. The project, however, is

inconsistent with the general pattern of rectangular shaped piers radiating out perpendicular from the seawall.

The Port and the Corps concluded that the proposed demolition and construction projects cannot avoid the adverse effects, and therefore, draft mitigation measures have been developed (see Enclosure 1). The measures originated with the Port through its planning and public review processes. The Corps and the Port will jointly implement these treatment measures, which may be expanded pending the results of the SHPO consultation.

Should you have any questions regarding this matter, please contact Richard Stradford: 415-503-6845 or Richard.A.Stradford@usace.army.mil. A copy of this letter is being furnished to the Port of San Francisco.

Sincerely,

Arijs A. Rakstins

Deputy for Project Management

Enclosure

MEMORANDUM OF AGREEMENT

BETWEEN THE U.S. ARMY CORPS OF ENGINEERS AND THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER

REGARDING THE PIER 36 DEMOLITON PROJECT SAN FRANCISCO, SAN FRANCISCO COUNTY, CALIFORNIA

WHEREAS, the San Francisco District, U. S. Army Corps of Engineers ("USACE"), has proposed to remove Pier 36, its Transit Shed, and three sections of the Bulkhead Wharf that connect the Pier and the Seawall, on the San Francisco Waterfront ("Undertaking"); and,

WHEREAS, the Undertaking is a prerequisite to construction of the Brannan Street Wharf, a new park and open space proposed by the Port of San Francisco (Port) that meets the policy and goal of the Port's Waterfront Land Use Plan under the authority of the Port; and,

WHEREAS, Article XVI.B of the Project Partnership Agreement between the Port and USACE, dated September, 29, 2010, outlines that USACE shall perform or ensure performance of any mitigation activities or actions for historic properties or that are otherwise associated with historic preservation including data recovery activities; and

WHEREAS, USACE has determined that the implementation of the Undertaking will adversely affect contributing elements of the Port of San Francisco Embarcadero Historic District (Historic District), a property listed in the National Register of Historic Places (NRHP) under Criteria A, B, and C in 2006, and, therefore, an historic property as defined at 36 CFR § 800.16(l)(1); and

WHEREAS, the Historic District is owned and under the jurisdiction of the Port; and

WHEREAS, the Port has participated in the consultation for the Undertaking and has been invited to be a consulting party to this Memorandum of Agreement (MOA); and

WHEREAS, USACE has consulted with the California State Historic Preservation Officer (SHPO) pursuant to 36 CFR Part 800, the regulations that implement Section 106 of the National Historic Preservation Act (Act) of 1966 (16 U.S.C. § 470f), as amended, regarding the Undertaking's adverse effects on the Historic District; and

WHEREAS, USACE has notified the Advisory Council on Historic Preservation (Council) of the adverse effect finding pursuant to 36 CFR § 800.6(a)(1), and the Council

has determined it would not participate in the consultation unless requested by a consulting party; and

WHEREAS, USACE has notified the California Native American Heritage Commission (Commission) and shall contact the individual and groups identified by the Commission,

WHEREAS, the Port and USACE have afforded opportunities to the public, and the Port has consulted with key historic preservation stakeholders, the San Francisco Historic Preservation Commission and San Francisco Architectural Heritage; and,

WHEREAS, USACE has taken into account the stakeholder comments and thoroughly considered alternatives to the Undertaking, and, as a result, has concluded that there is no feasible or prudent alternative to the Undertaking that would avoid adversely affecting the Historic District contributing elements; and,

WHEREAS, USACE and has further determined that it will resolve the adverse effects of the Undertaking on the Historic District through the execution and implementation of this MOA; and

WHEREAS, USACE has determined that the proposed removal of Pier 36, its Transit Shed and Sections 11a, 11 and portions of 12 that connect the Pier to the Seawall, is the preferred alternative to ensure the navigation improvement goal is achieved, constitutes an adverse effect to the historic property, a finding which was concurred by the SHPO; and

WHEREAS, USACE has further determined that resolution of the adverse effect will be achieved through execution and implementation of this MOA; and

NOW, THEREFORE, USACE, the SHPO, and the Port agree that the Undertaking shall be implemented in accordance with the following Stipulations in order to take into account the effects of the Undertaking on historic properties the Pier 36 removal project, and further agree that these Stipulations shall govern the Undertaking and all of its parts until this MOA expires or is terminated.

STIPULATIONS

USACE shall ensure that the following measures are carried out:

I. HISTORIC AMERICAN ARCHITECTURAL SURVEY AND AMERICAN ENGINEERING RECORD (HABS/HAER) DOCUMENTATION PLAN

- A. USACE shall ensure the preparation of the following documentation for the affected contributing elements of the Historic District in accordance with the HABS/HAER Level II requirements:
 - 1. Large format black and white photographs (4" by 5" or larger negative size) showing the Pier 36, Transit Shed, and the three visible sections of the Bulkhead Wharf in context, as well as, details of associated historical engineering features. The photographs shall be produced and processed for archival permanence (i.e., negatives must be on safety film only; resin-coated paper is not accepted), and shall be include a photographic index. Views shall include:
 - a. general contextual views of Pier 36 and other features in their setting,
 - b. views of each elevation for the Pier and associated features, and
 - c. views of the historical architectural and engineering features of the Pier.

Images must be fully identified with the name and location of the structure, a description of the feature or view being photographed, the direction in which the photograph was taken, and the name of the photographer and the date created.

- 2. Should original construction drawings of Pier 36 and associated features be available, selected drawings shall be reproduced photographically in accordance with the following photographic specifications.
 - a. The preferred negative format (black and white) for reproducing drawings is 8 x 10 in.
 - b. A 4×5 in. negative format may be used as long as the prints are enlarged to 8×10 in. in order to maximize their legibility.
 - c. The photographs shall be produced and processed for archival permanence, and shall include a photographic index.

If existing drawings are not available, detailed drawings (e.g., plans, elevations, and selected details) shall be completed. The available original plans of the resources shall be included as part of the documentation. All drawings and site plans shall be appropriately conserved at the site or at a qualified repository.

3. A written historical and descriptive report shall be prepared according to the "Narrative Format" of the NPS Guidelines for HABS/HAER documentation. The report should include a detailed description of the Pier and a brief discussion of the contextual history of Historic District. The Pier 36 description and historical context, previously presented in the Port's "Historical Resources Evaluation Report" for the evaluation of the Historic

- District to the NRHP, will be incorporated into the report. A site plan on $8 \frac{1}{2} x$ 11 in. paper should be incorporated into the report.
- 4. USACE shall submit a copy of the documentation in draft form to the SHPO for review prior to transmitting the final documentation. The SHPO shall return the draft documentation with comment. In addition, the documentation shall be submitted to the City and County of San Francisco Planning Department prior to authorization of any permit that may be required for demolition of the building. Once completed and accepted, USACE shall retain a minimum of one archival stable copy of the final recordation, and provide copies to the SHPO and Port.

II. INTERPRETIVE EXHIBIT PROGRAM

- A. The USACE and the Port shall develop and implement an interpretive program, utilizing the HABS/HAER documentation and other information regarding the Pier 36 demolition project generated by the Port and the City and County of San Francisco. The interpretive program shall include the following:
 - 1. In discussions with the Port, incorporate interpretive materials into the City of San Francisco's website.
 - 2. Create an exhibit as part of the proposed landscape design of the proposed Brannan Street Wharf project. The exhibit shall consist of historical images, maps and photographs, and narrative text, to explain and summarize the historical significance of the Historic District and the significant events that occurred in the South Beach area (e.g., construction and operation of Pier 36 and the Belt Railroad).
 - 3. Incorporate commemorative rail markers in the deck of the new Brannan Street Wharf in the approximate location of the existing historic rail spur on the south apron of Pier 36.
 - 4. In discussions with the Port and the San Francisco Planning Department, salvage character-defining elements of Pier 36 and incorporate into the design of the Brannan Street Wharf project, such as the historic neon identification sign and other elements of interest which can be feasibly salvaged.
 - 5. Based upon input from local historic preservation organizations, such as San Francisco Architectural Heritage and the San Francisco Museum and Historical Society, donate to the organizations any additional structural elements not incorporated into the design of the Brannan Street Wharf or used in the interpretive exhibit as requested.

6. A video documenting the resources in their historic context, to be made available by USACE and the Port to institutions, such as the History Room of the San Francisco Public Library, Main Branch.

III. ARCHAEOLOGICAL DISCOVERY AND TREATMENT PLAN

A. USACE shall implement the Archaeological Discovery and Treatment Plan presented as Attachment 1 to avoid or resolve significant adverse effects from the Undertaking on buried or submerged archaeological resources.

IV. ADMINISTRATIVE PROVISIONS

A. Professional Qualifications

1. The activities prescribed by Stipulations I, II, and III of this MOA shall be carried out by or under the authority of USACE and the Port, and under direct supervision of a person or persons meeting at a minimum the *Secretary of Interior's Professional Qualifications Standards* (48 Fed. Reg. 44,716, 44,738-39 (Sept. 29, 1983)) (PQS) in the appropriate discipline. However, nothing in this stipulation may be interpreted to preclude USACE, the Port, or any agent or contractor thereof from using the properly supervised services of persons who do not meet the PQS.

B. Data Dissemination

1. A copy of the documentation identified in Stipulations I, II, and III shall be sent by USACE to the Northwest Information Center (California State University, Sonoma), the History Room of the San Francisco Public Library, San Francisco County Historical Society and to other appropriate archives designated by USACE, the Port, and the SHPO.

C. Dispute Resolution

1. Should any signatory to this MOA object at any time to the manner in which the terms of this MOA are implemented, USACE shall immediately notify the SHPO of the objection and consult with the objecting party to resolve the objection. USACE shall reasonably determine when this consultation will commence. If the objection is resolved through such consultation, the action in dispute may proceed in accordance with the terms of that resolution. If, after initiating such consultation, USACE determines that the objection cannot be resolved, USACE shall forward all documentation relevant to the objection, including the proposed response to the objection by USACE, to the

Council and request the Council to comment. Within thirty (30) days after receipt of such documentation, the Council shall:

- a. Provide USACE with recommendations, which USACE shall take into account in reaching a final decision regarding the dispute; or
- b. Notify USACE that it will comment pursuant to 36 C.F.R. § 800.7(c)(1) through (c)(3) and Section 110(a)(1) of the Act, and proceed to comment.
- 2. USACE shall take into account any Council comment provided in response to such a request, with reference to the subject of the dispute, and will issue a decision on the matter.

D. Public Objection

1. At any time during implementation of the measures stipulated in this MOA, should an objection pertaining to this MOA be raised by a member of the public, USACE shall immediately notify the SHPO in writing of the objection and take the objection into consideration. USACE shall consult with the objecting party, and, if the objecting party so requests, the SHPO for no more than 15 days. Within 10 days following closure of this consultation period, USACE will render a decision regarding the objection and notify all parties of its decision in writing. In reaching its decision, USACE will take into account any comments from all parties regarding the objection, including the objecting party. USACE's decision regarding the resolution of the objection will be final. USACE may authorize any action subject to objection under this paragraph to proceed after the objection has been resolved in accordance with the terms of this paragraph.

E. Amendments, Non-Compliance and Termination

- 1. If any of signatories believes that the terms of this MOA cannot be carried out or that an amendment to its terms should be made, that signatory shall immediately consult with the other parties to develop amendments to this MOA pursuant to 36 CFR § 800.14(b)(3), § 800.6(c)(7) and § 800.6(c)(8). No amendments shall take effect without the unanimous consent of the signatories.
- 2. If this MOA is not amended as provided for in this stipulation, any of the signatories may terminate it, whereupon USACE shall proceed in accordance with 36 CFR § 800.6(c)(8).

F. Duration of the MOA

- 1. Unless terminated pursuant to Stipulation E, above, or unless it is superseded by an amended MOA, this MOA shall be in effect until USACE, in consultation with the other signatory, determines that all of its terms have been satisfactorily fulfilled. Upon a determination by USACE that all the terms of this MOA have been satisfactorily fulfilled, this MOA will terminate and have no further force or effect. USACE shall promptly provide the other signatories with written notice of its determination or of termination of the MOA.
- 2. The terms of this MOA shall be satisfactorily fulfilled within five years following the date of execution by the signatory parties. If USACE determines that this requirement cannot be met, the MOA parties shall consult to reconsider its terms. Reconsideration may include the continuation of the MOA as originally executed, amendment of the MOA, or termination. In the event of termination, USACE shall comply with Subsection 1 of Stipulation E, above, if it determines that the Undertaking will proceed notwithstanding termination of this MOA.
- 3. If the Undertaking has not been implemented or amended to extend the time within five years following execution of this MOA by the signatory parties, this MOA shall automatically terminate and have no further force or effect. In such event, USACE shall notify the other MOA parties in writing, and, if it chooses to continue with the Undertaking, shall reinitiate review of the Undertaking in accordance with 36 CFR Part 800.

G. Effective Date

1. This MOA will take effect on the date that it has been executed by the SHPO.

Execution of this MOA, pursuant to 36 CFR § 800.6, including its transmittal by USACE to the Council in accordance with 36 CFR § 800.6 (b)(1)(iv), evidences that USACE has taken into account the effects of the Undertaking on historic properties, and that those parties believe that USACE has satisfied its responsibilities under Section 106 of the Act and applicable implementing regulations. It further evidences that USACE has afforded the Council an opportunity to comment on the Undertaking and its effect on historic properties.

SIGNATORIES:

U. S. Army Corps of Engineers, San Francisco District

By:	Date:
Torrey A. DiCiro	
Lieutenant Colonel, U.S. Army	
Commanding	
California State Historic Preservation Officer	
Bre	Date:
By: Milford Wayne Donaldson, FAIA	Date.
California State Historic Preservation Officer	
California State Historic Preservation Officer	
CONSULTING PARTY:	
Port of San Francisco	
By:	Date:
Monique Moyer	
Executive Director	

March 23, 2011

Mr. Bill Wycko Environmental Review Officer San Francisco Planning Department 1650 Mission Street, 4th Floor San Francisco, CA 94103

Dear Mr. Wycko,

On March 16, 2011, the Historic Preservation Commission (HPC) held a public hearing and took public comment on the Draft Environmental Impact Report (DEIR) for the proposed Pier 36/Brannan Street Wharf Project. After discussion, the HPC arrived at the comments below:

- The HPC agreed with the assessment made in the DEIR that the proposed project is not compatible with the historic district.
- In reviewing the preservation alternatives, the HPC agreed more information is needed about what is included or excluded in the cost estimate for Alternative B (i.e. tax credits and other incentives for preservation of historic resources).
- The HPC agreed additional preservation alternatives are needed, perhaps a variation of Alternative B that shows retention of more historic fabric.
- The HPC agreed more analysis is needed for generating a leasable and revenueproducing project for the Port to off-set the cost for preservation and rehabilitation as a preservation alternative.
- The HPC is not comfortable with the determination made in the DEIR that there is no cumulative impact simply because the previous projects in the historic district were found to be in compliance with the Secretary of Interior's Standards. The HPC points out that a historic resource, the adjacent pier (Pier 34), has already been lost.
- The HPC agreed documentation of previous and current projects is needed in order to
 evaluate new proposals and their cumulative impacts to the historic district in the
 future.
- The HPC noted that there is considerable cost associated with long-term storage / curatorship of salvage materials. The HPC agreed that salvage materials, if and when possible, should be used in on-site interpretive displays.
- The HPC agreed that the Interpretative Program should be prepared by a qualified consultants meeting the minimum qualifications.
- The HPC agreed that the Interpretative Program should include the history of the entire Port of San Francisco Embarcadero Historic District, so that the site is viewed in the broader context of the district to which Pier 36 contributes to.

1650 Mission St. Suite 400 San Francisco, CA 94103-2479

Reception: **415.558.6378**

Fax.

415.558.6409

Planning Information: 415.558.6377 • The HPC agreed further clarification is needed for Mitigation Measures (MM) CP-1(b) – identification of what resource is being mitigated.

The HPC appreciates the opportunity to participate in review of this environmental document.

Sincerely,

Charles Chase, President

Historic Preservation Commission

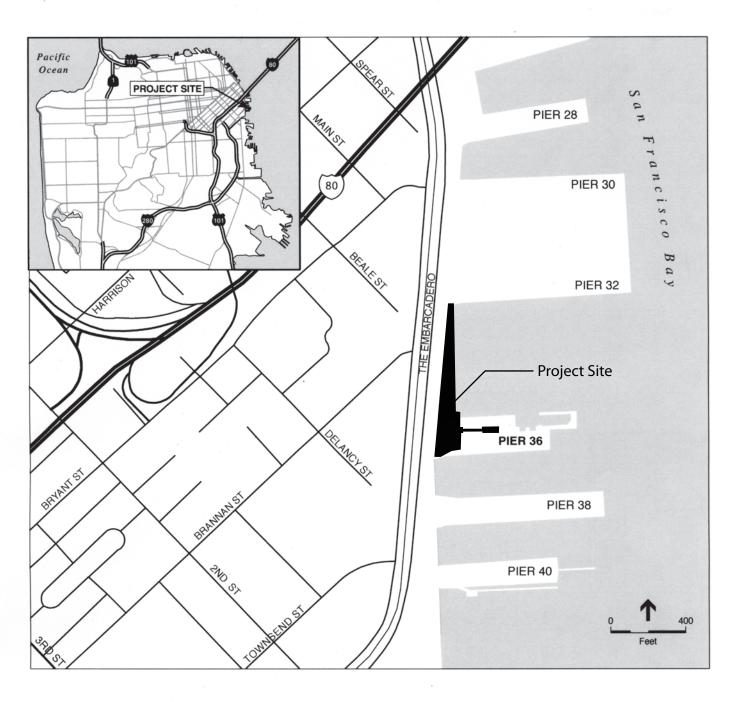


Figure 1
Project Location Map
Brannan Street Wharf

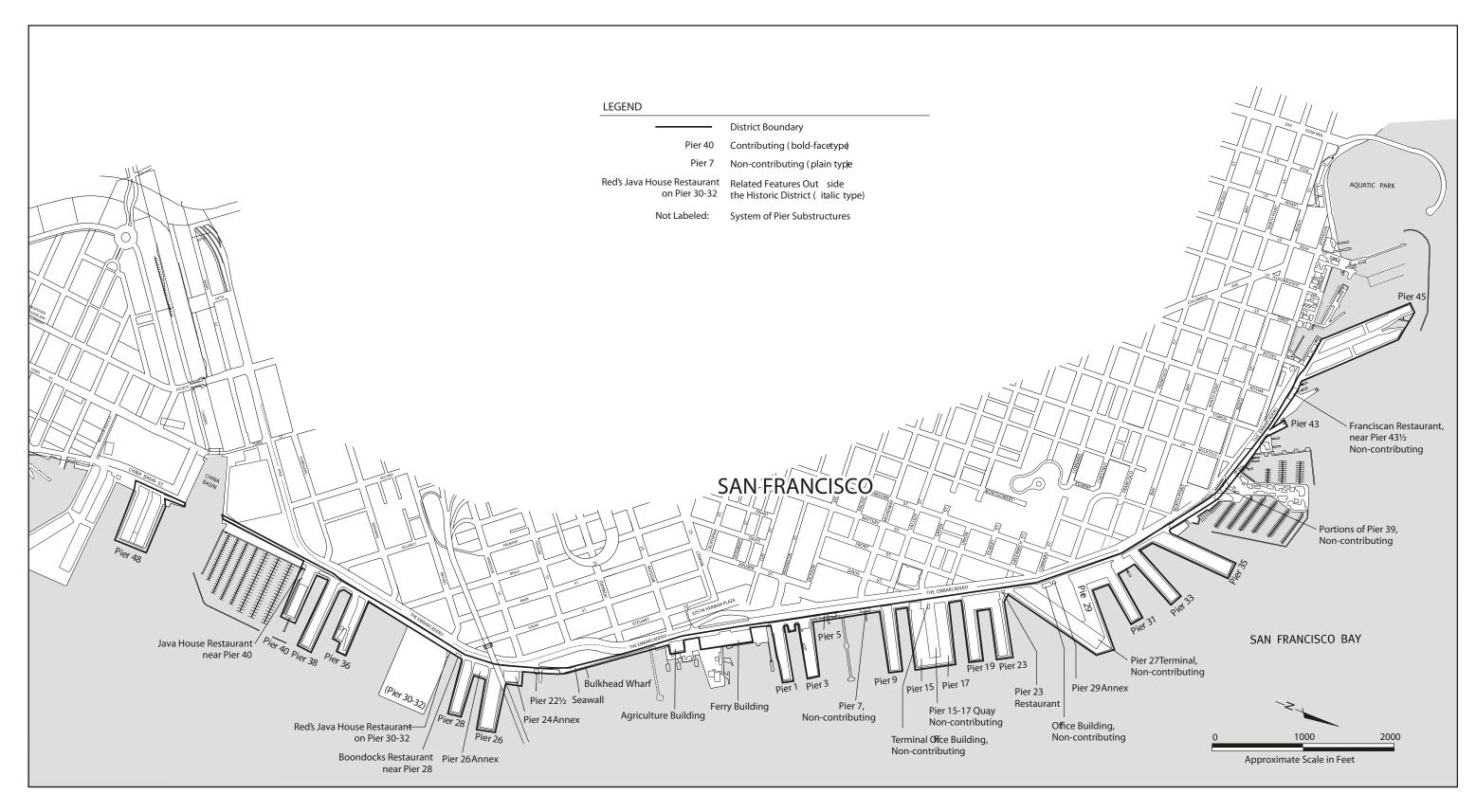
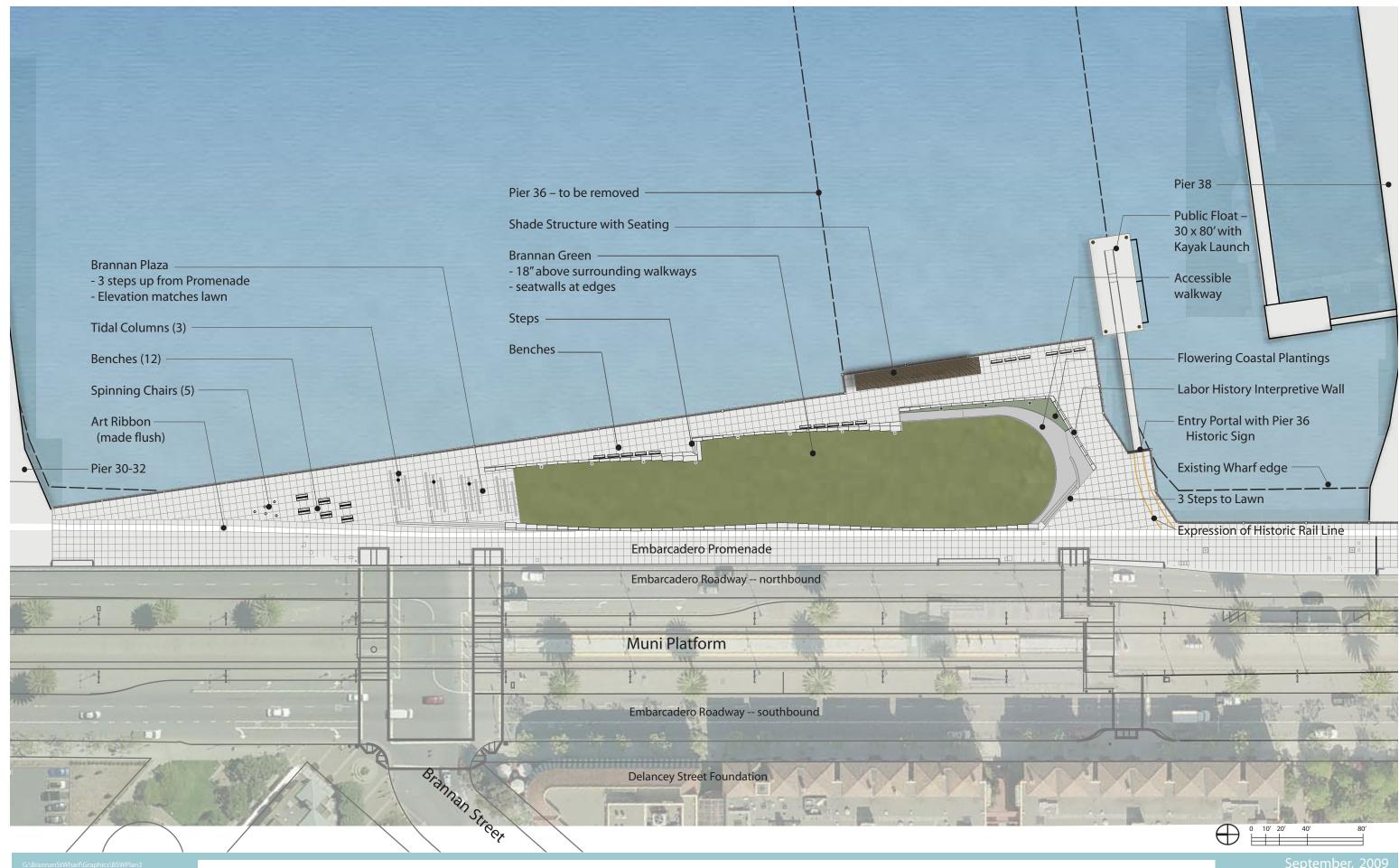
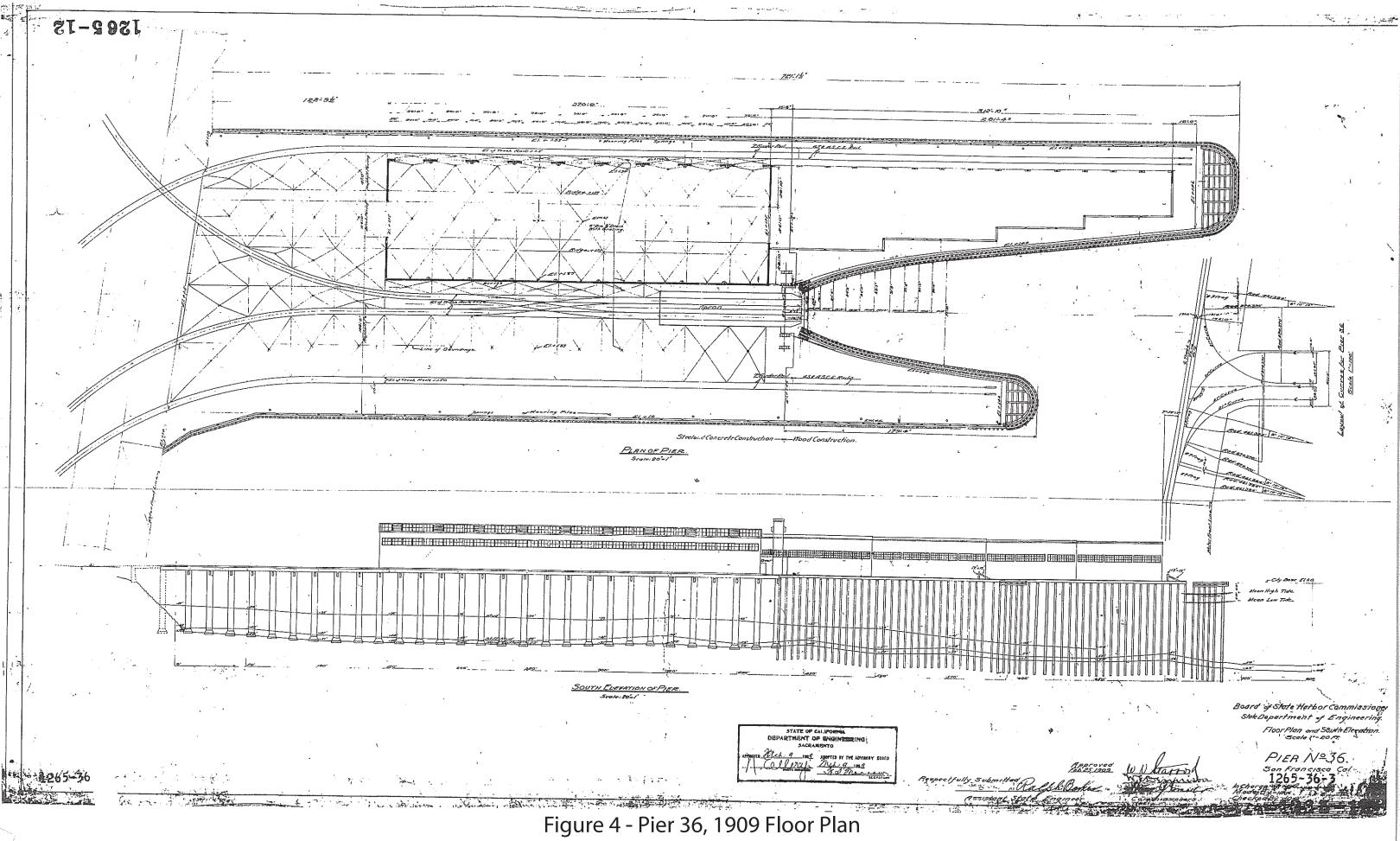
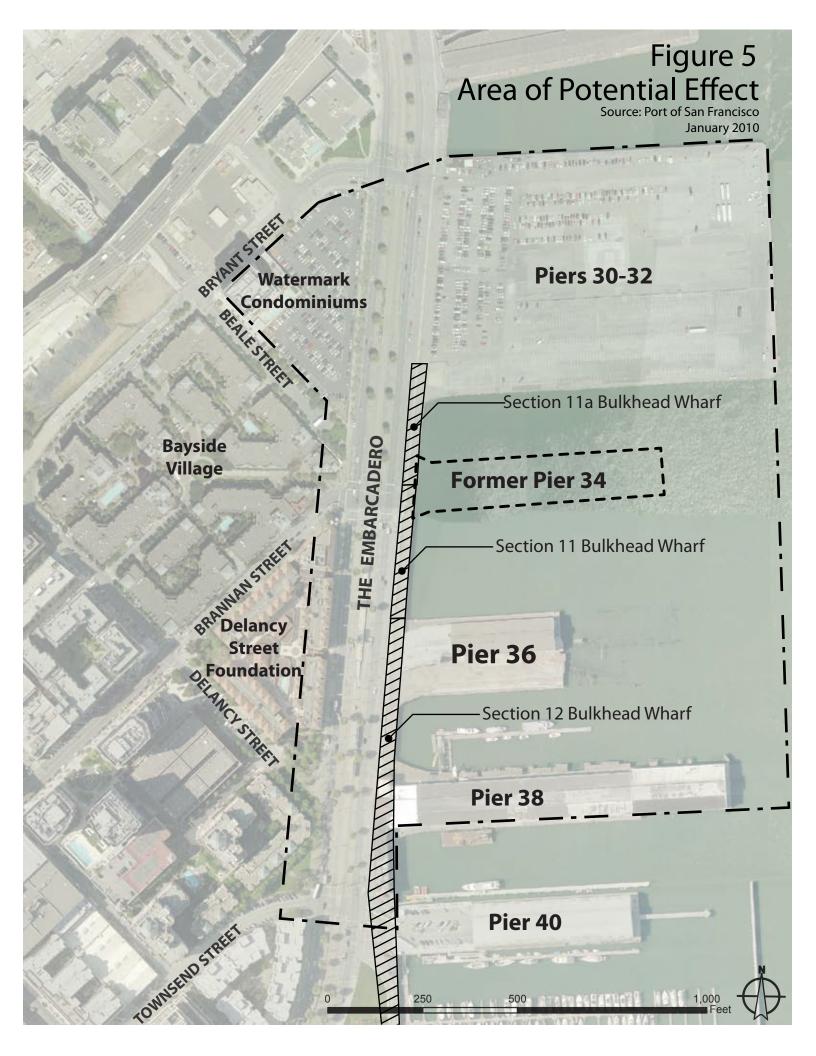


Figure 2 - Historic District Map

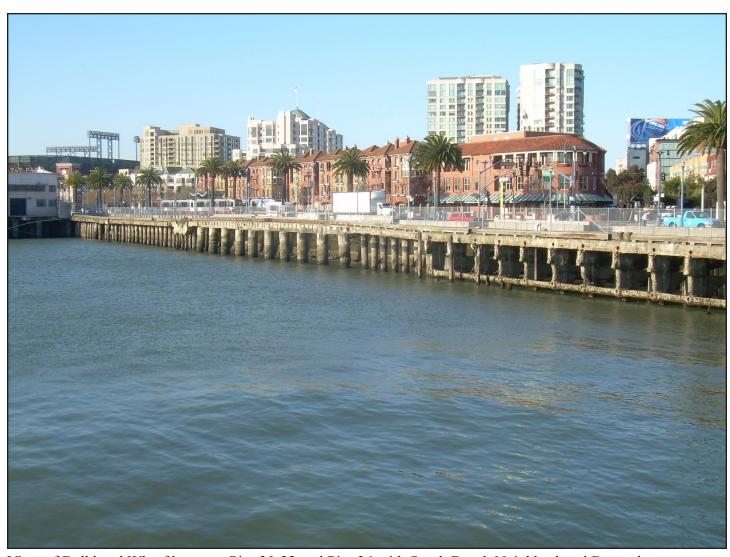








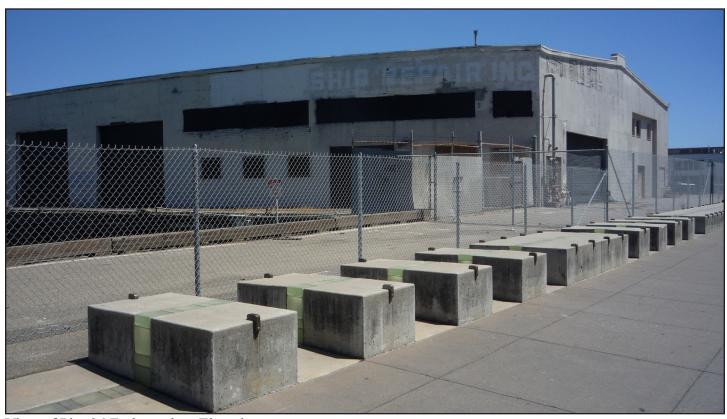
View of Area of Potential Effects from Residential Tower Across The Embarcadero.



View of Bulkhead Wharf between Pier 30-32 and Pier 36 with South Beach Neighborhood Beyond.



View of Deteriorated Bulkhead Wharf Substructure Piles



View of Pier 36 Embarcadero Elevation



Embarcadero Roadway and South Beach Neighborhood Beyond



View of Residential Towaer across the Embarcadero from Pier 30-32



View of Bulkhead Wharf and Pier 30-32 Beyond



View of Pier 38, Pier 40 and South Beach Marina



View of Bulkhead Wharf and South Elevation of Pier 36



View of Outboard End of Pier 36, 2006

BULKHEAD WHARF AND SEAWALL LOCATION BY SECTION Embarcadero National Register Historic District (Pier 45 - 48 at China Basin)

Source: Board of State Harbor Commissioners 1924 Biennial Report

Legend

Section B - 1000' between Taylor and Powell Streets - Constructed 1914.

Section A - 561' between Powell and Stockton Streets - Constructed in two parts in 1914.

Section 1 - 1000' between Stockton and Kearny Streets - Constructed in two parts in 1913-14 &1914-15.

Section 2 - 1000' between North Point and Francisco Streets - Constructed in two parts in 1914-16 & 1917-19.

Section 3 - 1000' between Francisco and Lombard Streets - Constructed in three parts in 1915-16, 1917-18 & 1918-19.

Section 4 - 1000' between Lombard and Union Streets - Constructed in two parts in 1920 and 1921-22.

Section 5 - 1000' between Union and Vallejo Streets - Constructed in four parts in 1912-13, 1914-15, 1921-22 & 1930-31.

Section 6 - 800' between Vallejo and Pacific Streets - Constructed in three parts in 1916-17, 1917 & 1920.

Section 7 - 980' between Pacific and Clay Streets - Constructed in six parts in 1894-95, 1909, 1916, 1920, 1921-22 & 1929-30.

Section 8b - 450' between Market and Mission Streets - Constructed 1915.

Section 8 - 300' between Mission and point north of Howard Streets - Constructed 1915.

Section 9a - 990' south of Mission to Folsom Street - Constructed 1913 and demolished in 1975 and 1983.

Section 9b - 788' between Folsom and Harrison Streets - Constructed 1913, all but 60' was demolished in 1983.

Section 9 - 990' south of Mission to Folsom Street - Constructed in two parts in 1909-10.

Section 10 - 537' north of Beale to Main Street- Constructed 1910-11.

Section 11a - 281' south of Main to Beale Street - Constructed 1912-14.

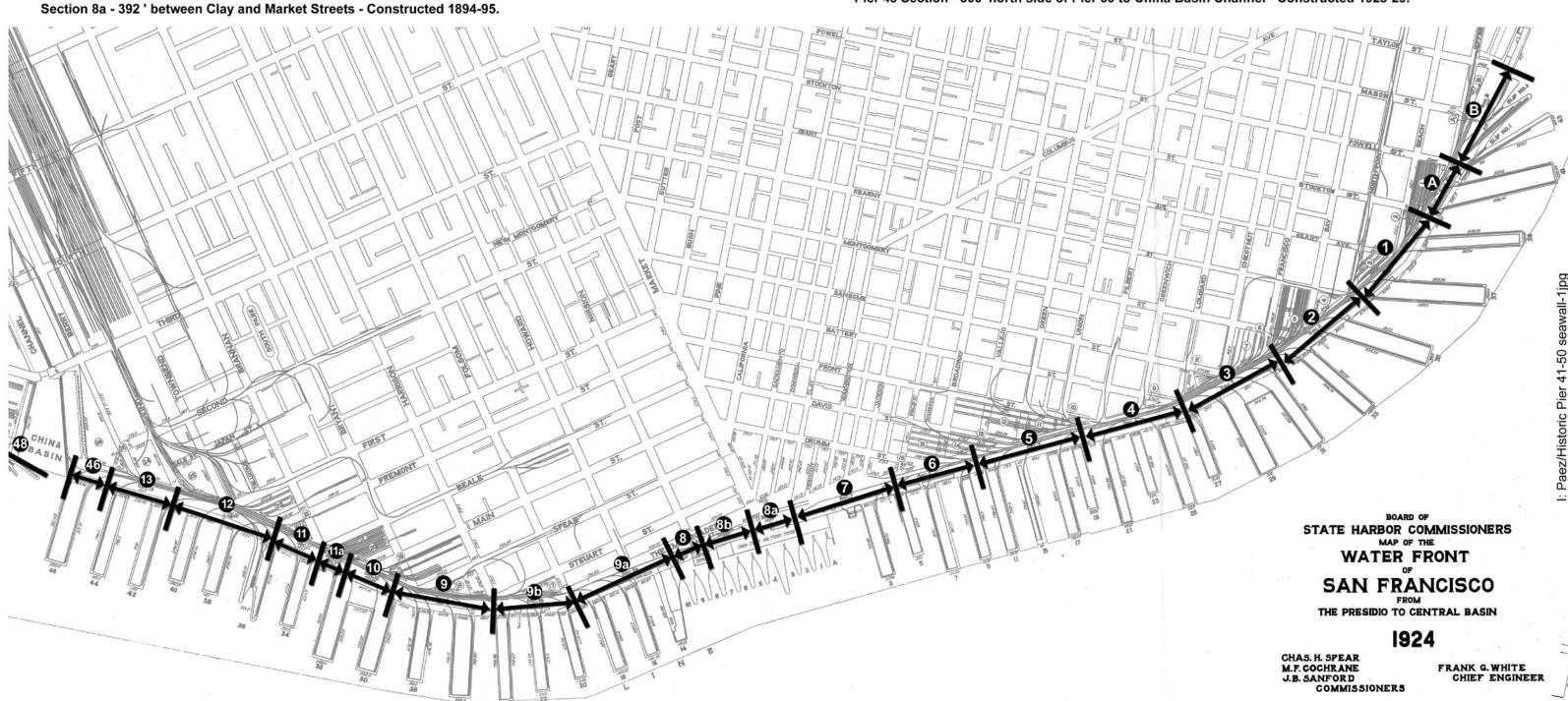
Section 11 - 353' north of Beale to Fremont Street - Constructed 1909-10.

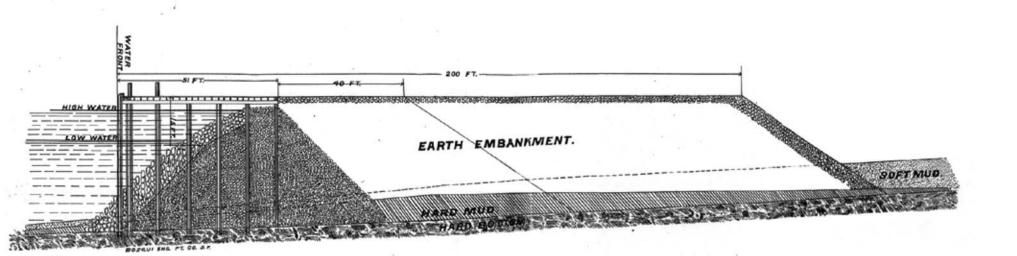
Section 12 - 1167' between Fremont and King Streets - Constructed in two parts in 1909.

Section 13 -600' between King and Berry Streets -Constructed in two parts in 1917-18 & 1935-36.

Pier 46 Section - 236' between Berry Street and China Basin Channel - Constructed in 1914.

Pier 48 Section - 500' north side of Pier 50 to China Basin Channel - Constructed 1928-29.





TRANSVERSE SECTION of SEA WALL and THOROUGHFARE.

SCALE ZOFT -INCH.

Figure 12 - Seawall Section