CHAPTER 8: DRAFT 4(F) EVALUATION

8.1 INTRODUCTION

This discussion complies with the federal requirements found in 49 USC, Section 303 and 23 USC, Section 138, commonly referred to as Section 4(f). These requirements pertain to all actions or projects undertaken by agencies within the U.S. Department of Transportation, including the Federal Transit Administration (FTA). The essence of 4(f) requirements is that special efforts are to be made to protect public park and recreation lands, wildlife and waterfowl refuges, and historic sites. The law states that the Secretary of Transportation shall approve a project which requires the use of land from a significant publicly-owned park, recreation area, wildlife or waterfowl refuge, or historic site of significance only if (1) there is no prudent and feasible alternative to the use of that land and (2) the project includes all possible planning to minimize harm to the resource being affected by that use.

As defined under Section 4(f), use occurs when protected land is permanently acquired for a transportation facility, when a temporary use is considered adverse, or when there is "constructive use" of the resource. Constructive use occurs when indirect impacts are so severe that the activities, features, or attributes that qualify the resource for protection are substantially impaired.

Pursuant to DOT Rules and Regulations, Part 771 Section 771.135 (p) (5) (I), constructive use of an historic property does not occur when "compliance with the requirements of Section 106 of the National Historic Preservation Act and 36 CFR Part 800 for proximity impacts of the proposed action . . . results in an agreement of 'no adverse effect.'" Because the proximity impacts of the proposed project have been determined to result in "no adverse effect," these impacts would not result in constructive use of the 4(f) resources evaluated herein.

Section 4(f) applies to the present project because both Transbay Terminal alternatives would require the use of land from the site of the Transbay Terminal, demolition of the Transbay Terminal building, and demolition and removal of the terminal loop ramp that connects the terminal to the San Francisco-Oakland Bay Bridge. The terminal loop ramp and the terminal are both considered contributory elements of the Bay Bridge, which is an NRHP-eligible resource.

In addition, both Caltrain Downtown Extension alternatives would require the use of 4(f)-protected resources. Either Caltrain Downtown Extension Alternative using cut-and-cover construction would require demolition and removal of 13 other buildings that are contributors to a historic district that is eligible or appears eligible for listing on the National Register of Historic Places (NRHP). Either Caltrain Downtown Extension Alternative constructed using tunneling approach would require demolition and removal of three such contributory buildings. Ten of the 13 buildings are contributors to the Rincon Point / South Beach Industrial Warehouse Historic District, which was identified as appearing eligible for the NRHP in 1983. It has not been determined eligible. The

other three buildings are contributors to the Second and Howard Streets Historic District, which was determined eligible for the NRHP in 1999.

Pursuant to DOT Rules and Regulations Part 771.135 (g) (2), Section 4(f) does not apply to archaeological sites where the FTA, after consultation with the State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (ACHP), determines that the archaeological resource is important chiefly because of what can be learned by data recovery and has minimal value for preservation in place, and data recovery is undertaken. On the basis of this qualification, Section 4(f) does not apply to any of the archaeological resources identified or potentially existing in the project APE.

8.2 PROJECT PURPOSE AND NEED

The City and County of San Francisco, Peninsula Corridor Joint Powers Board (JPB), and San Francisco Redevelopment Agency propose to construct a new multi-modal Transbay Terminal on the site of the present Transbay Terminal, extend Caltrain commuter rail service from its present northern terminus at Fourth and Townsend Streets in San Francisco to an underground terminus in the basement of a new Transbay Terminal, and establish a redevelopment area plan and related development projects, including transit-oriented development on publicly-owned land in the vicinity of the new terminal. The primary purposes of the project are to improve public access to bus and rail services, modernize the Transbay Terminal and improve its service, reduce non-transit vehicle usage, and revitalize the Transbay Terminal area. The project will also address a number of related needs. It will improve Caltrain commute service by providing direct access to downtown San Francisco and enhance connectivity between Caltrain and other major transit systems. It will accommodate future intercity or high-speed rail services. The project is also expected to serve future travel demand in the San Jose - San Francisco corridor and alleviate traffic congestion on US Highway 101 and I-280 between San Jose and San Francisco as well as other routes; improve regional air quality; enhance accessibility to employment, retail and entertainment opportunities; and support local economic and land use development goals. More detailed discussion of the project purpose and need is provided in Chapter 1, Purpose of and Need for the Project.

8.3 PROJECT DESCRIPTION

The proposed project has three major components, as follows:

- A new, multi-modal Transbay Terminal on the site of the present Transbay Terminal;
- Extension of Caltrain commuter rail service from its current San Francisco terminus at Fourth and Townsend Streets to a new underground terminus underneath the proposed new Transbay Terminal; and

- Establishment of a Redevelopment Area Plan with related development projects, including transit-oriented development on publicly owned land in the vicinity of the new multi-modal Transbay Terminal.

Of various alternatives considered, two Transbay Terminal Alternatives, two Caltrain Downtown Extension Alternatives, and two Redevelopment Alternatives were carried forward into conceptual engineering and environmental studies. Both of the Caltrain Downtown Extension Alternatives include design options. A brief description of these alternatives and options is provided in the following paragraphs; Chapter 2, Description of the Project Alternatives, describes these alternatives and options in detail.

8.3.1 TRANSBAY TERMINAL ALTERNATIVES

Two alternatives are being studied for a new Transbay Terminal. Under either alternative, a new multi-modal terminal would be located at the site of the existing Transbay Terminal. Bus ramps would connect directly from the new terminal to the San Francisco-Oakland Bay Bridge, while a rail facility in the basement of the new terminal would provide space for the terminus of the Caltrain Downtown extension and for potential future East Bay commuter rail and California's high-speed intercity rail. The new terminal would provide facilities for AC Transit, Golden Gate Transit, Greyhound, and Muni buses and trolley coaches, paratransit, and for Greyhound Package Express and private taxi services. It would also include space for retail and cultural uses. It would incorporate sustainable design features to conserve energy and water resources.

8.3.1.1 Transbay Terminal West Ramp Alternative

The Transbay Terminal West Ramp Alternative proposes to construct a terminal one block (165 feet) wide by three blocks (1,300 feet) long on the site of the existing Transbay Terminal, requiring demolition of the existing terminal and its loop ramp. The new Terminal would include six levels, with four levels above ground and two below, comprising an underground train level with a direct connection to the train platforms from the Transbay Terminal; an underground train mezzanine; a street level for bus services; an above-ground pedestrian concourse including 150,000 to 225,000 square feet of retail, entertainment, conference, educational, and cultural uses; and two above-ground bus decks. Elevators and escalators would provide for pedestrian circulation between levels.

Under this alternative, new direct bus ramps between the terminal and the Bay Bridge would be constructed on the west side of the terminal building in generally the same location as the existing ramps paralleling Essex Street. The existing loop ramp would be demolished and would not be rebuilt. Midday bus storage would be provided off-site under the west Bay Bridge approaches between Second and Fourth streets. Please see Section 2.2.1.1, Transbay Terminal West Ramp Alternative, for a detailed description of this alternative.

8.3.1.2 Transbay Terminal Loop Ramp Alternative

The Transbay Terminal Loop Ramp Alternative proposes to construct a terminal one block (165 feet) wide and three blocks (1,300 feet) long on the site of the existing Transbay Terminal, requiring demolition of the existing terminal and its loop ramp. It would include five levels: an underground train level; an underground train mezzanine; a street level for bus services; an above-ground pedestrian concourse including entertainment, conference, educational, and cultural uses; and an above-ground bus level. Vertical pedestrian circulation would be provided as in the West Ramp Alternative.

The Loop Ramp Alternative would reconstruct both the west and east bus ramp structures, providing for a full one-way loop of bus circulation through the new Transbay Terminal, with direct connections to the Bay Bridge on both the east and west sides of the terminal building. The Loop Ramp Alternative would allow for some midday bus storage on the ramps, with the remaining storage off-site under the west Bay Bridge approaches. Please see Section 2.2.1.2, Transbay Terminal Loop Ramp Alternative, for a more detailed description of this alternative.

8.3.2 CALTRAIN DOWNTOWN EXTENSION ALTERNATIVES

The Caltrain Downtown Extension component of the project consists of an underground extension of Caltrain from its present San Francisco terminus at Fourth and Townsend Streets to a new underground terminal at the site of the present Transbay Terminal at First and Mission Streets. The extension would consist of two to four tracks branching to several additional tracks into the basement of the proposed new Transbay Terminal. The extension would include new mainline tracks as they pass the Caltrain Fourth and Townsend storage yard, with a new subsurface station/platform near Fourth Street adjoining Townsend Street.

The extension alignment would enter a portal south of Townsend near Fifth Street, pass the new subsurface Fourth and Townsend platform, and continue eastward below grade under Townsend Street in a cut-and-cover tunnel configuration. It would then curve northward just east of Third Street in a cut-and-cover configuration to Second and Brannan Streets. The alignment would then continue in a cut-and-cover configuration under Second Street for about 2,055 feet.

8.3.2.1 Caltrain Extension Tunneling Option

Use of tunneling rather than cut-and-cover is an option for the portion of the underground Caltrain Extension between Townsend Street and Folsom Boulevard. A highly specialized tunneling technique known as the “stacked drift” approach is suitable to the fractured rock geology of this portion of the alignment. It involves very little risk of collapse and was evaluated specifically as an alternative to preserve many of the buildings under which the tunnel alignment would pass. Please see Sections 2.2.2.3 and 5.20 for more detail on this tunneling option.

Two Caltrain Extension alignment alternatives are under consideration from Howard Street northward, both of which would be in a cut-and-cover configuration, as described in the following sections.

8.3.2.2 Second-to-Main Caltrain Extension Alternative

As the Second-to-Main Caltrain Extension Alternative approaches Howard Street along Second Street, it would curve 90 degrees northeasterly, into the basement of the proposed new Transbay Terminal. It would have six tracks and three platforms within the Terminal building and would include approximately 2,000 feet of additional tracks in a cut-and-cover configuration from the east end of the new Terminal, curving 90 degrees south to Main Street, and continuing underneath Main Street to south of Folsom Street. This track could be used for temporary train storage and could be extended for a San Francisco-to-Oakland cross-bay alignment as a separate project. This alternative would include an option for an 800-foot-long pedestrian connection underneath Fremont Street to the BART Embarcadero Station.

8.3.2.3 Second-to-Mission Caltrain Extension Alternative

The Second-to-Mission Alternative would follow the same alignment as the Second-to-Main Alternative up Second Street to about Howard Street. As the alignment approaches Howard Street, rather than entering the terminal from the west and parallel to the axis of the terminal, it would curve northeasterly at about Tehama Street, cutting diagonally under what is known as the "hump" area in front of the present Transbay Terminal and would exit out Mission Street towards The Embarcadero. Two tracks would continue under Mission Street in a cut-and-cover configuration; these could be used for temporary train storage and could be extended for a San Francisco-to-Oakland cross-bay alignment as a separate project.

Please see Section 2.2.2, Caltrain Downtown Extension Alternative, for a more detailed description of this project component.

8.3.3 REDEVELOPMENT ALTERNATIVES

The third component of the project consists of establishment of a Redevelopment Plan Area and related development projects, including transit-oriented development on publicly owned land in the vicinity of the proposed new multi-modal Transbay Terminal. There are two alternatives to this component: a "full build" development scenario and a "reduced scope" development scenario.

8.3.3.1 Full Build Development Scenario

The Full Build Alternative includes about 7.6 million square feet (sq. ft.) of new residential / office / retail / hotel development, including approximately 5.6 million sq. ft. (74 percent of the total development) of residential development (4,700 residential units including affordable housing);

1.2 million sq. ft. of office development; 475,000 sq. ft. of hotel development; and 355,000 sq. ft. of retail development.

8.3.3.2 Reduced Scope Development Scenario

The Reduced Scope Alternative assumes a lesser amount of commercial and retail development and is weighted more toward housing. It assumes approximately 5.4 million sq. ft. of residential / office / retail / hotel development, including 4.7 million sq. ft. (87 percent of the total development) of residential development (3,900 dwelling units); 350,000 sq. ft. of hotel development; and 200,000 sq. ft. each of office and retail development.

8.3.4 THE NO-PROJECT ALTERNATIVE

The No-Project Alternative represents existing and committed (that is, funded) transportation services and facilities in the project corridor. The No-Project Alternative consists of existing Caltrain service plus funded improvements and other committed bus, rail, and roadway improvements to the 2020 horizon year and a BART extension to the San Francisco International Airport.

8.3.5 ALTERNATIVES CONSIDERED AND WITHDRAWN

Other alternatives considered for the Transbay Terminal and Caltrain Extension project elements were withdrawn from further study because they would not accomplish the purpose and need for the project; would severely constrain railroad or bus operations; would constrain pedestrian circulation; would have severe community impacts; had extemely poor constructability; or would have involved extraordinary costs or substantial risk. These alternatives and the reasons why they were withdrawn from further consideration are described in Section 2.3, Alternatives Considered and Withdrawn.

8.4 POTENTIALLY AFFECTED SECTION 4(f) PROPERTIES

Both Transbay Terminal alternatives and both Caltrain Downtown Extension alternatives would require the use of land from the Transbay Terminal property and demolition of the Transbay Terminal building, which is eligible for the NRHP and is also a contributing element to the San Francisco-Oakland Bay Bridge, another NRHP-eligible resource. Both TransbayTerminal alternatives would also require demolition and removal of the existing terminal loop ramp, which is also a contributing element to the Bay Bridge.

Cut-and-cover tunnel construction for either Caltrain Downtown Extension alternative would require the use of land from and demolition of 13 buildings that are eligible for listing in the NRHP, as contributory elements to a district that is or appears eligible for listing. The Tunnel Option for the Caltrain Downtown Extension alternatives would require the use of land from and demolition of

three buildings that are eligible for listing in the NRHP as contributors to a district that is eligible for listing.

Both alternatives would also require a construction easement through the corner of a fourteenth property that is a contributor to an eligible district. This building would not be demolished, and the construction easement would not result in an adverse effect under Section 106.

The Redevelopment Area component would not require the use of 4(f) property.

8.4.1 THE TRANSBAY TERMINAL

The Transbay Terminal at 425 Mission Street occupies land extending from Mission Street on the north to Natoma Street on the south; the terminal building crosses Fremont Street on the east and First Street on the west. It was designed by Timothy Pfleuger, Arthur Brown, Jr., and John J. Donovan, consulting architects. Built in 1939, the Transbay Terminal was the "functional successor to the Ferry Building. When electric trains began arriving over the Bay Bridge, use of the Ferry Building dropped to almost nothing overnight, and the Transbay Terminal took over as the primary gateway to the city." (Caltrans, 1983) The Terminal has been determined eligible for listing in the NRHP by consensus of the SHPO and a federal agency (FHWA) and is considered as a contributory element to the historic significance of the Bay Bridge. The present owner of the Transbay Terminal is Caltrans. Its current use is for commuter and inter- and intra-regional bus transportation.

8.4.2 THE TRANSBAY TERMINAL LOOP RAMP

The Transbay Terminal and the Terminal Loop Ramp, which leads from the Bay Bridge approaches to the Transbay Terminal, would be demolished to construct the new Transbay Terminal component of the project.

The Transbay Terminal loop ramp structure constitutes two of the six approach spans that remain from the original Bay Bridge project. It is considered a contributing element of the Bay Bridge. Originally designed to carry trolley trains from the bridge to the terminal, the ramp's tracks were removed when electrified trains gave way to buses in the late 1950s. The terminal loop ramp currently serves bus traffic exclusively and is used for midday storage of transit buses.

8.4.3 THE SAN FRANCISCO – OAKLAND BAY BRIDGE

The Bay Bridge is an eight and one-half mile long series of connecting structures carrying two levels of traffic between San Francisco and Oakland. Opened to service in 1936, in its original design, the bridge upper level carried two-way auto traffic while the lower level carried truck and trolley traffic. Structurally, the bridge is distinctive in its use of a variety of bridge-building technologies, the length of its 1,400-foot cantilever channel span on the east (Oakland) side, and the length of the two

2,320-foot suuspension spans on the west (San Francisco) side. The outstanding engineering feature is the center pier between the two suspension spans of the western half of the bridge. The tunnel connections between the east and west spans on Yerba Buena Island was the first double-decked highway tunnel in the United States. Notable individuals connected wth the project were Charles H. Purcell, Chief Engineer; Charles E. Andrew, Bridge Engineer; Glenn B. Woodruff, Design Engineer; and T. L. Pfleuger, Arthur Brown, Jr., and John J. Donovan, consulting architects. The Bay Bridge was evaluated by Caltrans in 1983 as meeting National Register eligibility criteria A, B, and C at the national level; it was determined eligible for listing in 1985.

8.4.4 RINCON POINT / SOUTH BEACH HISTORIC WAREHOUSE-INDUSTRIAL DISTRICT

The Rincon Point / South Beach Historic Warehouse-Industrial District was identified and designated in the 1983 survey by Caltrans. It was developed beginning in the 1850s and 1860s, when landfill efforts and warehouse construction changed the physical appearance of the "point" and "beach" forever. This district contains the greatest concentration of architectural resources within the project vicinity. The district was identifed as appearing eligible for the NRHP in 1983, based on research completed by Caltrans historians for the I-280 Transfer Concept Project, but it was never determined eligible by the SHPO. That research also found that the district appeared eligible under all four National Register criteria. About 60 buildings within the district have been identified as contributing to the district's significance. Approximately eight of these buildings date from before the 1906 San Francisco earthquake, with several from the mid-1800s.

The Rincon Point / South Beach Historic Warehouse Industrial District has also been designated locally significant and is eligible for listing in the California Register of Historic Places.

In 1985, the San Francisco Planning Department proposed the "South End Historic District," and the San Francisco Planning Commission designated this district under its landmarks program in February 1990. The South End Historic District has nearly identical boundaries and is nearly the same size as the Rincon Point District identified by Caltrans. The National Register status of the properties within the district, whether recognized as part of the South End district or Rincon Point / South Beach district, is the same. Please see Section 4.16.6, Historic Architectural Resources, for more detailed descriptions of both the NRHP and City of San Francisco districts.

8.4.5 SECOND AND HOWARD STREETS DISTRICT

The Second and Howard Streets District was determined eligible for the NRHP in 1999. This small district consists of 19 contributing properties and three non-contributors (two heavily-altered buildings and a vacant lot) with addresses on Second, Howard, Natoma and Montgomery streets. The contributing buildings date from 1906 to 1912; the primary original uses of these buildings were wholesaling, light manufacturing, and printing. The area was built for services to the construction industry. The permit for the first building to be erected in the District was approved on July 5, 1906, just two and a half months following the 1906 earthquake and fire. The Second and Howard Streets

District is partially surrounded by a locally recognized district known as the "New Montgomery – Second Street Conservation District." The San Francisco Planning Commission uses the conservation district designation to recognize parts of the city that have substantial concentrations of "special architectural and aesthetic importance." Please see Section 4.16.6, Historical Architectural Resources, for more detailed descriptions of both the NRHP and City of San Francisco districts.

As many as fourteen historic buildings, including ten contributors to the Rincon Point / South Beach Industrial Warehouse District and three contributors to the Second and Howard Streets District would be affected by the project. The Transbay Terminal and ramps, which are contributors to the San Francisco-Oakland Bay Bridge, would also be affected. Descriptions of each affected property are provided in Section 5.14, Historic and Cultural Resources.

Table 8.4-1 summarizes the impacts to the 4(f) properties that would be affected by the project, grouped in terms of the primary resources or districts to which they contribute.

Table 8.4-1
4(f) Properties That Would be Affected by the Transbay Terminal and Caltrain Downtown Extension Component Alternatives

Property Descriptor	NRHP Status	Impact	
		Cut-and-Cover Trench	***Stacked Drift Tunneling***
Bay Bridge			
Transbay Terminal, 425 Mission Street	Individually eligible & contributor	Demolition	Demolition
Bay Bridge Approaches	Contributor	Demolition	Demolition
Bus Ramps	Contributor	Demolition	Demolition
Second and Howard Streets District			
165-173 Second Street	Contributor	Demolition	Demolition
191 Second Street	Contributor	Demolition	Demolition
580-586 Howard Street	Contributor	Demolition	Demolition
Rincon Point/South Beach Industrial Warehouse District			
35 Stanford Street	Contributor	Demolition	No adverse effect
640 Second Street	Contributor	Demolition	No adverse effect
650 Second Street	Contributor	Demolition	No adverse effect
670-680 Second Street	Contributor	Demolition	No adverse effect
301-327 Brannan Street	Contributor	Demolition	No adverse effect
130 Townsend Street	Contributor	Demolition	No adverse effect
136 Townsend Street	Contributor	Demolition	No adverse effect
144-46 Townsend Street	Contributor	Demolition	No adverse effect
148-54 Townsend Street	Contributor	Demolition	No adverse effect
162-164 Townsend Street	Contributor	Demolition	No adverse effect
166-78 Townsend Street	Contributor	Construction Easement / No Adverse Effect	Construction Easement / No Adverse Effect

8.5 IMPACTS

Both Transbay Terminal Alternatives would require the removal of the Transbay Terminal, an NRHP-eligible resource and contributory element to the Bay Bridge, and of its existing ramp and bridge approaches, which are also contributing elements to the Bay Bridge.

Either alignment alternative of the proposed Caltrain Downtown Extension constructed using the cut-and-cover method would require the removal of 13 historic buildings, 10 of which are contributors to the Rincon Point / South Beach Industrial Warehouse District and three of which are contributors to the Second and Howard Historic District. These impacts would result in an adverse effect under Section 106, both to the individual resources and buildings and to the resources and districts to which they contribute, and these adverse effects would constitute use under Section 4(f).

The Tunneling Option would require the removal of three historic buildings, all of which are contributors to the Second and Howard Historic District. These impacts would result in an adverse effect under Section 106. Under this tunneling option, the 10 buildings that are contributors to the Rincon Point / South Beach District would be retained and would be underpinned to protect them from harm during construction. There would thus be no adverse effect to these properties with this construction option. The stacked drift tunneling method has an extremely low likelihood of collapse or tunnel failure.

A construction easement through a fourteenth property (affecting the southeast corner of the 166-178 Townsend property) would also be required to construct the subway for the Caltrain Downtown Extension under either construction option. The California Electric Light Company building would not be removed and would be underpinned to protect it from harm during construction. The easement would result in an effect under Section 106, but it would not be adverse and would not constitute use under Section 4(f) pursuant to 23 CFR 771.135 (7). The occupancy of land from the affected 4(f) property would be temporary, and less than the time needed for construction of the project. The encroachment would be for a construction easement only; there would be no change in ownership of the land. The scope of the work would be minor and there would be no changes to the nature or magnitude of the 4(f) resource; the building would be unchanged. Not only would there be no adverse physical impact, but there would be no interference with the purposes of the 4(f) resource, which would remain in place during construction. The resource would remain a contributor to its historic district. Following construction of the cut-and-cover tunnel, the property would be returned to its original condition.

This Draft 4(f) Evaluation is being circulated with this environmental document for review and agreement by the appropriate State and local officials having jurisdiction over the resources regarding the conditions as described in the preceding paragraphs.

8.6 AVOIDANCE ALTERNATIVES

Two alternatives were evaluated for each project component to achieve the project purpose and need. Also, the Caltrain Extension component has two construction Options. There are differences in effects on 4(f)-protected resources among these Alternatives and Options, as discussed in the following section, which is organized by project component. The No-Project Alternative is also briefly discussed.

8.6.1 TRANSBAY TERMINAL COMPONENT

There are no Transbay Terminal alternatives that are either reasonable, or feasible and prudent, and that avoid 4(f)-protected resources, as shown in the following paragraphs.

8.6.1.1 Transbay Terminal Alternatives Considered in the Present Document

As required by Proposition H, both new Transbay Terminal alternatives are proposed to be located on the site of the existing Transbay Terminal. In order to construct the new terminal and bring the new Caltrain Downtown Extension subway to this site, it would be necessary to demolish the existing Transbay Terminal and the terminal loop ramp, both of which are 4(f)-protected resources. Therefore, neither alternative constitutes an avoidance alternative under Section 4(f).

8.6.1.2 Transbay Terminal at Main/Beale

The New Bus Terminal at the Main/Beale Site that was considered in the 1997 Draft EIS/EIR for the Caltrain Downtown Extension would not have constructed a new terminal at the site of the present Transbay Terminal but it would not have avoided removal of the existing Transbay Terminal and terminal loop ramp. Although this option would have placed bus operations at the Main/Beale site, the Caltrain Downtown Extension was still proposed to terminate underground at the site of the present Transbay Terminal, which required demolition and removal of the terminal and terminal loop ramp. Note that this bus terminal alternative had been endorsed by the San Francisco Board of Supervisors but was ultimately found not to be feasible because the Main/Beale site could not provide for the needed level of AC Transit service. Withdrawal of the Main/Beale site was also consistent with the provisions of Proposition H (passed by the voters of San Francisco in November, 1998), which called for a multi-modal facility on the site of the current Transbay Terminal.

8.6.2 CALTRAIN DOWNTOWN EXTENSION COMPONENT

Two Alternatives with different horizontal and vertical alignment geometrics and two construction approaches (cut-and-cover and tunneling) were evaluated to meet the project purpose and need for the Caltrain Downtown Extension. There would be no difference in effects to 4(f)-protected resources between the Second–to-Mission Street and Second-to-Main Street Alternatives if constructed using the cut-and-cover trenching technique, however, construction of these alternatives using the tunneling option would affect fewer Section 4(f) protected properties.

8.6.2.1 Cut-and-Cover Tunneling Option

The Cut-and-Cover Option would require the removal of all 13 historic buildings described in Section 8.4, Potentially Affected Section 4(f) Properties. Ten of these buildings are contributors to the Rincon Point / South Beach Industrial Warehouse District and three are contributors to the Second and Howard Historic District. This Cut-and-Cover Option would also require the construction easement through the southeast corner of the 166-178 Townsend property, which is a contributor to the Rincon Point historic district.

8.6.2.1 Stacked Drift Tunneling Option

The Tunneling Option would avoid removal of 10 historic buildings that are contributors to the Rincon Point / South Beach Industrial Warehouse District, but would require removal of three buildings that are contributors to the Second and Howard Historic District. This Tunneling Option would also require the construction easement through the southeast corner of the 166-178 Townsend property, which is a contributor to the Rincon Point historic district.

8.6.2.2 Caltrain Downtown Extension – Essex Street Stub-End Alignment Alternative

In response to the curve radii problems associated with the 1997 Caltrain Downtown Extension alignment, an alternate subway alignment was reviewed that did not curve into the basement of the proposed new Transbay Terminal, but included a train terminal oriented perpendicular to and west of the existing Terminal. Therefore, it did not require demolition of the existing Transbay Terminal. Also, it would have been possible to construct this alignment using the stacked drift technique. This would have avoided demolition of all of the historic buildings in and around the Rincon Point / South Beach Industrial Warehouse District, while the alignment would not have encroached into the Second and Howard Historic District.

This alternative was included in the Notice of Preparation and Notice of Intent to Prepare this EIS/EIR, but was found not to be feasible. During the scoping process, the public noted several shortcomings of this alignment, and these public comments and shortcomings contributed to the withdrawal of this alternative alignment from further consideration. Because the train platforms would not have been directly under the new multi-modal transit facility, internal passenger circulation and transfers between modes would have been substantially compromised. Also, the stub-end orientation meant that trains would not be able to enter one end of the station and exit at the other. In the stub-end configuration, trains would pull into the station and would need to reverse direction to exit. This would substantially impair operating efficiency and would not meet the project purpose to improve Caltrain service to downtown San Francisco.

While it would have been possible to construct the Essex Street Stub-End Alignment of the Caltrain Downtown Extension without demolishing and erecting a new Transbay Terminal, this action would not have been a reasonable undertaking. Leaving the existing Transbay Terminal in place would have done nothing to improve space utilization, passenger circulation, signage, safety or operating

efficiency within the existing Transbay Terminal. There would have been very limited potential for revenue-generating joint development within the terminal or its environs. The existing terminal footprint includes numerous structures crossing city streets, a condition that has contributed to the continued deterioration and underutilization of land in the surrounding area. None of these conditions would have been improved without demolition of the terminal under this alternative.

In summary, therefore, this alternative alignment was found not to be feasible or reasonable and it was withdrawn from further consideration. It therefore does not constitute an avoidance alternative under Section 4(f).

8.6.3 NO-PROJECT ALTERNATIVE

The No-Project Alternative would not use the Transbay Terminal or the existing loop ramp, but this alternative would not address the Project's purpose and need. Note, however, that Caltrans is currently completing design for seismic retrofit of the loop ramp, and Caltrans plans include demolition and removal of the east ramps and reconstruction of the west ramps. Further, The existing Transbay Terminal building also requires substantial and costly retrofit and reconstruction to meet current seismic and other building codes. Interim retrofit measures have been taken, but the full reconstruction (to be undertaken by others) may be so extensive as to result in the use of the resource under Section 4(f). Given the high costs of retrofitting the existing terminal, the City of San Francisco requested Caltrans cooperation in considering replacement alternatives that would meet the project purposes identified for the present study.

8.6.4 OTHER ALTERNATIVES

Other alternatives and alignment variations considered for the 1997 Draft EIS/EIR for the Caltrain Downtown Extension were not feasible or prudent for the present study. Geometrics for these alignment alternatives did not meet curve radius minimums required to accommodate high-speed steel-wheel-on-rail equipment currently in use in Europe and under consideration by the California High-Speed Rail Authority for implementation in California, including a station in downtown San Francisco. Constructing a new Caltrain alignment that precluded future use by high-speed rail equipment was not prudent, and these alternatives were withdrawn from further consideration.

Table 8.6-1 compares the alternatives in terms of their potential involvement of 4(f)-protected resources.

Table 8.6-1
Involvement of Section 4(f) Properties for Transbay Terminal and Caltrain Extension Alternatives

ALTERNATIVES BY COMPONENT	POTENTIAL INVOLVEMENT OF 4(F) PROPERTIES

	Terminal &/or Terminal Ramps	Historic Buildings / Districts
TRANSBAY TERMINAL COMPONENT		
Transbay Terminal West Ramp Alternative	Terminal & both ramps	
Transbay Terminal Loop Ramp Alternative	Terminal & both ramps	
CALTRAIN DOWNTOWN EXTENSION COMPONENT		
Second-to-Main Caltrain Extension Alternative – Cut-and-Cover Tunnel Option	Terminal & both ramps*	10 buildings in Rincon Point / South Beach District and 3 buildings in Second and Howard Streets Historic District
Second-to-Mission Caltrain Extension Alternative – Cut-and-Cover Tunnel Option	Terminal & both ramps*	10 buildings in Rincon Point / South Beach District and 3 buildings in Second and Howard Streets Historic District
Second-to-Main Caltrain Extension Alternative – Stacked Drift Tunnel Option	Terminal & both ramps*	3 buildings in Second and Howard Streets Historic District
Second-to-Mission Caltrain Extension Alternative – Stacked Drift Tunnel Option	Terminal & both ramps*	3 buildings in Second and Howard Streets Historic District
* Based on the current project definition, the Caltrain Downtown Extension would not be undertaken without replacement of the existing Transbay Terminal.		

Figures 2.2-1, 2.2-5 through 2.2-7, and 2.2-9 though 21 show the project alternatives; Figure 2.3-1 shows all of the alternatives for the terminal and extension components that were considered in the present study and the 1997 Draft EIS/EIR but found not to be viable.

8.7 MEASURES TO MINIMIZE HARM

There are no remaining viable alternatives that avoid 4(f) properties. The Preferred Investment Strategy (when identified) would include all possible planning to minimize harm to the resources. The mitigation measures proposed in this section will be coordinated with the State Historic Preservation Officer (SHPO) and Caltrans, and will be discussed with the Advisory Council for Historic Preservation (ACHP), and San Francisco Landmarks Preservation Board. It is anticipated that the proposed demolitions of the Transbay Terminal and ramps and 12 or 3 historic buildings, depending upon tunneling option, will result in a finding of adverse effect under Section 106. The construction easement required for the building at 166-178 Townsend will not result in an adverse effect. A Memorandum of Agreement (MOA) will be executed by FTA, JPB, the City and County of San Francisco, the San Francisco Redevelopment Agency, ACHP, and SHPO, if appropriate.

JPB will assure that the adverse effects to these properties would be mitigated by recordation to Historic American Buildings Survey (HABS) and Historic American Engineering Record (HAER) standards prior to any construction activities. The HABS/HAER documentation would be filed with

the SHPO, the HABS/HAER collection in the Library of Congress, the University of California Bancroft Library, the San Francisco Planning Department, the San Francisco Architectural Heritage (SFAH), and the San Francisco Public Library. Although recordation mitigates the severity of the effect of demolition, it does not prevent the tangible loss of historic properties.

JPB and the City and County of San Francisco in coordination with Caltrans and the SFAH would develop a display of the photographs produced in the HABS/HAER documentation for public exhibition. This display could be presented in the new multi-modal transit terminal, at the San Francisco Public Library, or in other venues as appropriate.

After recordation and at least 30 days prior to demolition, JPB would ensure that the SHPO or its designee has the opportunity to salvage architectural elements of the properties for re-use or curation. JPB would ensure that the items selected are removed in a manner that minimizes damage and that they are delivered to the SHPO or its designee.

8.8 COORDINATION

The historic and cultural resource investigations conducted for this project have been coordinated with the National Parks Service (NPS), SHPO, and Caltrans; copies of the Draft EIS/EIR and Draft 4(f) Evaluation have been provided to the San Francisco Landmarks Preservation Advisory Board and the SFAH. On May 23, 2002, the SHPO concurred in the eligibility determinations presented in the HPSR; a copy of the SHPO's concurrence letter is included in Appendix D

Consultation with the NPS, SHPO and ACHP will continue through the determination of effects phase of the Section 106 process; results will be included in the Final EIS. Determination of mitigation measures will be coordinated with the NPS, ACHP, Caltrans, and SHPO.