Addendum for the Transbay Terminal/Downtown Extension/Redevelopment Project

Final Environmental Impact Statement/Report

May 25, 2006

Transbay Transit Center

URS

In association with
Hatch Mott McDonald & EPC Consultants
Consultants to the Transbay Joint Powers Authority

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TRANSBAY TRANSIT CENTER PROGRAM

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1 INTRODUCTION

This addendum to the Transbay Terminal/Caltrain Downtown Extension/Redevelopment Project Final Environmental Impact Statement/ Environmental Impact Report (Final EIS/EIR) (SCH #95063004), which was certified in April 2004 and was reaffirmed by the Board of Supervisors on June 15, 2004, has been prepared pursuant to Section 15164 of the California Environmental Quality Act (CEQA) guidelines. The addendum provides an analysis of the environmental impacts that may result from proposed changes to the approved Locally Preferred Alternative (LPA) described and analyzed in the Final EIS/EIR. Each topical area previously examined in the Final EIS/EIR is reviewed and analyzed below with regard to proposed changes to the Transbay Transit Center (TC) Building design and reconstruction. The proposed changes, which are refinements to the LPA (herein identified as the Refined Project), are described in the following subsection.

This addendum addresses the question of whether the proposed changes to the Project would trigger the need for subsequent environmental review pursuant to Public Resources Code 21166 and Section 15162(a) of the CEQA guidelines. The Final EIS/EIR evaluated the following natural resources and urban systems: Land Use/Wind/Shadow, Displacements and Relocations, Socio-economics, Community Facilities and Services/Safety and Security, Parklands/Schools/Religious Institutions, Air Quality, Noise and Vibration, Geology and Seismology, Water Resources and Floodplains, Utilities, Historic and Cultural Resources, Hazardous Materials, Visual and Aesthetics, Transit/Traffic/Parking, and Construction Methods and Impacts. Analysis of cumulative impacts is interwoven in the discussion provided for each topic area. An analysis of each of these topics for the Refined Project is provided below under the Evaluation of Environmental Impacts subsection.

2 DESCRIPTION OF REFINED PROJECT

The Transbay Transit Center (TC) Building component of the LPA consists of a new, multi-modal transit center.[1] The Refined Project consists of the following changes to the conceptual design and construction for the TC Building component of the LPA:

- Reduction in the building height and size;
- Consolidation of bus operations on the AC Transit level;
- Relocating Greyhound operations to the Train Mezzanine level;
- Elimination of one level of bus ramp;
- Improvements in public access and pedestrian circulation at the Ground level;
- Two-phase (Phase 1 and Phase 2) construction process;
- Use of a temporary Greyhound boarding area prior to construction of the permanent boarding facility in Phase 2; and
- Use of a reduced number of piles (caissons) for construction of the Transbay Transit Center Building.

[1] A more detailed description of the Refined Project is provided in the Recommended Program Implementation Strategy, Transbay Joint Powers Authority, February 10, 2006, and the Final Massing Study for the Transit Center Building, Transbay Joint Powers Authority, February 16, 2006.

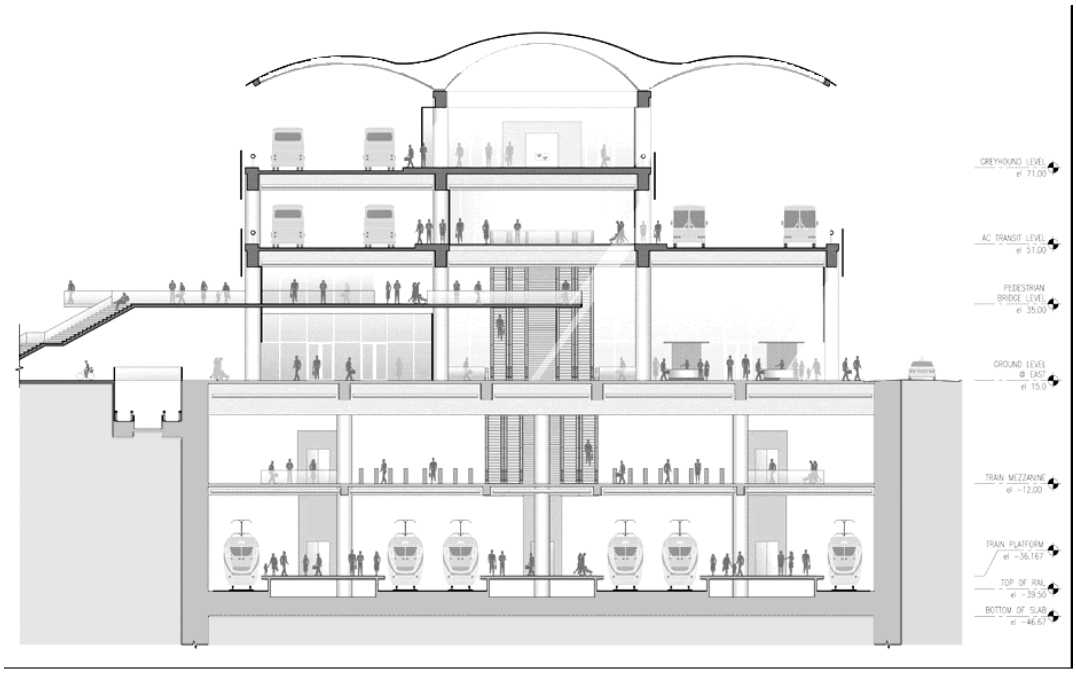
2.1 Modifications to the Transbay Transit Center Building and Bus Ramp Design

The Transbay Transit Center (TTC) Building would retain the footprint established in the Final EIS/EIR – extending from the west side of Beale Street across Fremont and First Streets to and including the parcels acquired by the Transbay Joint Powers Board (TJPA) at 80 Natoma – but would be reduced in height and size. The reduction in height would be accomplished by removing the top bus level originally planned to serve Greyhound and other miscellaneous bus carriers (Figure 2.1). The specific reduction in the 109-foot roof height and approximately 156 feet to the top of the cone-shaped roof elements presented in the Final EIS/EIR would be determined in final design. Although the TC Building would be extended 100 lineal feet on the west end from what was proposed in the Final EIS/EIR, the total square footage contained within the TC Building would be reduced from approximately 1.1 million gross square feet to approximately 1.0 million gross square feet because of reductions in floor space on the Concourse and Ground level as described below.

The AC Transit (AC) level would then become the building's top level, which would be reduced in width from 165 feet to 155 feet, but would maintain the same number of bus bays and circulation pattern planned as part of the LPA. By eliminating one bus level, the bus ramp linking the TC Building with I-80 (Bay Bridge) could be confined to a single-level structure replacing the two-level, stacked ramp concept described for the LPA. The single-level ramp would be approximately 40 feet above street level and approximately 20 feet lower than the top of the stacked ramp. The suburban and charter bus operations displaced from the upper level would be relocated on the AC level. Greyhound would move to a permanent boarding area on the Train Mezzanine level when the passenger train station is completed in Phase 2.

Located directly below the AC level, the Concourse level would be reduced in area from that described for the LPA. The Refined Project would concentrate retail uses in the central portion of the building above the main public lobby and at the west end of the TC Building on the Ground level and on the Concourse level, creating two-level retail spaces. The reduction in retail space on the Concourse level would allow a more spacious lobby and improved circulation between the Ground level and the Concourse (Figure 2.1).

The Concourse level and Ground level would be reduced in width from 165 feet to approximately 110 feet, allowing adjacent public sidewalks to be widened and more sunlight to penetrate into the center of the TC Building. The actual widths will be established during final design. Space resulting from the redesigned Concourse and Ground levels would be allotted for office lease space, flexible support space, and community use space. In addition, the Ground level would be redesigned to take advantage of the enlarged lobby and expanded exterior sidewalks created by cantilevering the AC level over the main public entryway for the TC Building. Pedestrian access to and from the north side of the Ground level would be from a redesigned public plaza or enclosed winter garden space facing Mission Street. The south side of the Ground level (along Natoma Street) would be configured to accommodate taxi and paratransit drop-offs and pick-ups and to improve pedestrian access to and from the TC Building. A second public lobby area is located on the western side of the TC Building between Minna and Natoma Streets with entrances from First Street. An additional public access point would be provided from the Bus Plaza between Beale and Fremont Streets.



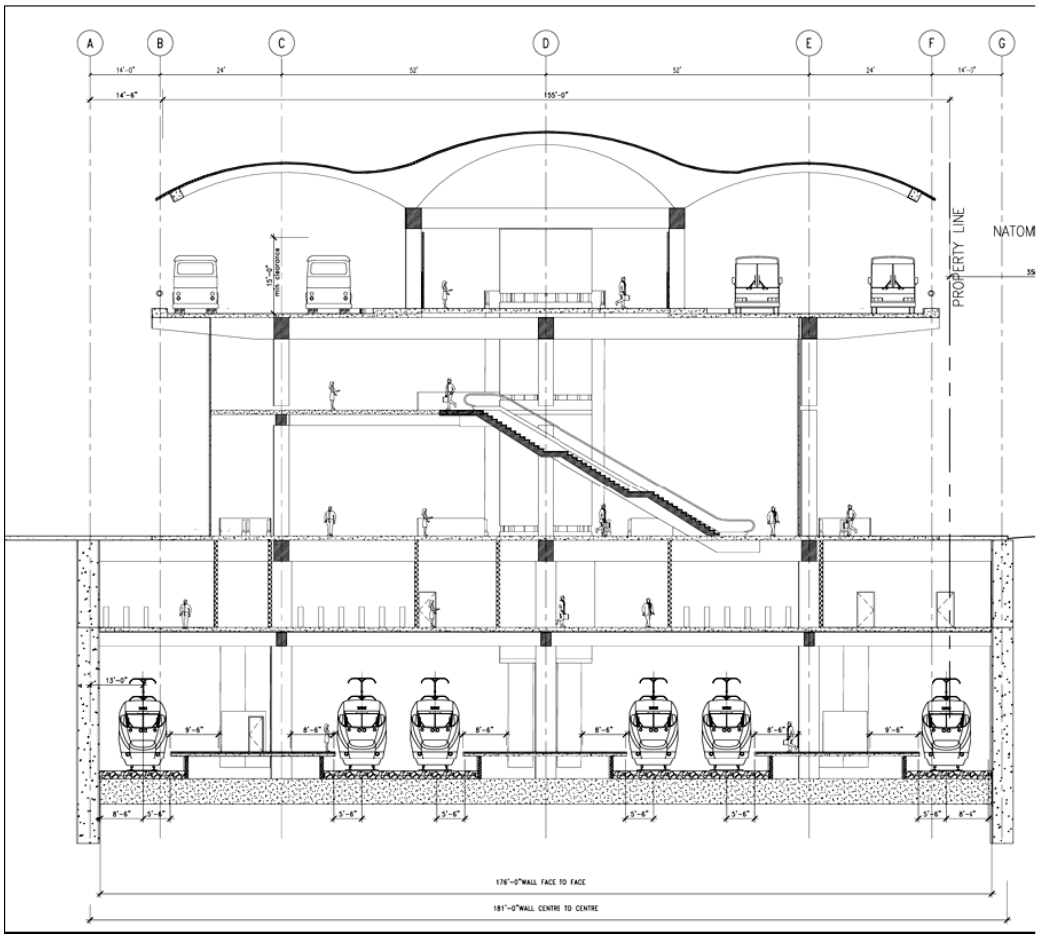


Figure 2.1, Refined LPA

2.1.1 Phased Construction and Refined Construction Methods

All components of the LPA were to be constructed simultaneously in one phase. In the Refined Project, construction activities would be accomplished in two phases. Phase 1 would complete the above-grade (bus operations) portion of the TC Building and provide the structural supports, including drilled caissons and permanent perimeter shoring walls, to allow excavation and completion of the underground train station and mezzanine level in Phase 2 (Figure 2.2, Figure 2.3) Approximately 125 caissons would be used to support the above-grade TC Building, substituting for the nearly 1,000 piers assumed in the original (LPA) construction procedures. In addition, structural steel would replace concrete as the main support element to lighten the structure and to reduce costs.

2.1.2 Temporary Terminal

As described in the Final EIS/EIR (pg. 5-184), the LPA would require construction of a Temporary Terminal that would be used by bus operators during construction of the new Transbay Transit Center. The Temporary Terminal is proposed to be located on two blocks. Under the LPA, the core of the Temporary Terminal would be constructed on the block defined by Main/Beale/Folsom/Howard Streets and would serve primarily AC Transit operations. The curbside areas would serve Muni, Samtrans, and Golden Gate Transit. Greyhound passengers would board and alight at an adjacent terminal across Beale Street between Folsom and Howard Streets. Under the Refined Project, the Temporary Terminal would be used during Phase 1 construction and may be continued for use by Greyhound if Option 2, described below, were selected as the Greyhound interim boarding area prior to Phase 2 construction.

2.1.3 Greyhound Temporary and Permanent Boarding Areas

The two-phase construction schedule would delay Greyhound's move to a permanent boarding area on the Train Mezzanine level until Phase 2 construction is completed. The Refined Project would, therefore, require Greyhound to operate at an interim boarding location until Phase 2 is finished. Three temporary locations are being considered for the Greyhound interim boarding location: 1) the AC level of the Terminal; 2) the Temporary Terminal; or 3) the western end of the TC Building on the Ground level. These options are described below.

2.1.3.1 Option 1: Temporarily Relocating Greyhound to the AC Level

Relocating Greyhound operations to the AC Transit level in Phase 1 is the preferred option if sufficient capacity is available to accommodate AC Transit, Greyhound, and other bus operators using the Transbay Transit Center. An operational and capacity analysis will be conducted to confirm this assumption. Access to and from the TC Building would still be via the bus ramp connecting with I-80 or through bus storage link ramps linking the TC Building with the bus storage area at Third Street and Stillman Street, as described in the Final EIS/EIR.

2.1.3.2 Option 2: Remaining for an Extended Period at the Temporary Terminal until Phase 2 is Complete.

Greyhound operations at the Temporary Terminal could be located on the block bounded by Folsom, Beale and Fremont Streets, as described in the Final EIS/EIR (pg. 5-184), and would remain there until Greyhound's permanent boarding area in the Terminal Train Mezzanine level is finished. Alternatively, Greyhound could be temporarily located on the block bounded by

Folsom, Main, Beale and Howard Streets where AC Transit and other bus carriers would operate until Phase 1 is completed (Figure 2.4 illustrates these alternative locations). A customer waiting and ticket area would be constructed for Greyhound in the center of the block. This structure would either be torn down when Greyhound moves to its permanent boarding area within the TC Building or reused as a park pavilion for the planned park in the middle of this block. To make room for Greyhound operations on this block, some AC Transit buses would move across the street to the block bounded by Folsom, Beale and Fremont Streets.

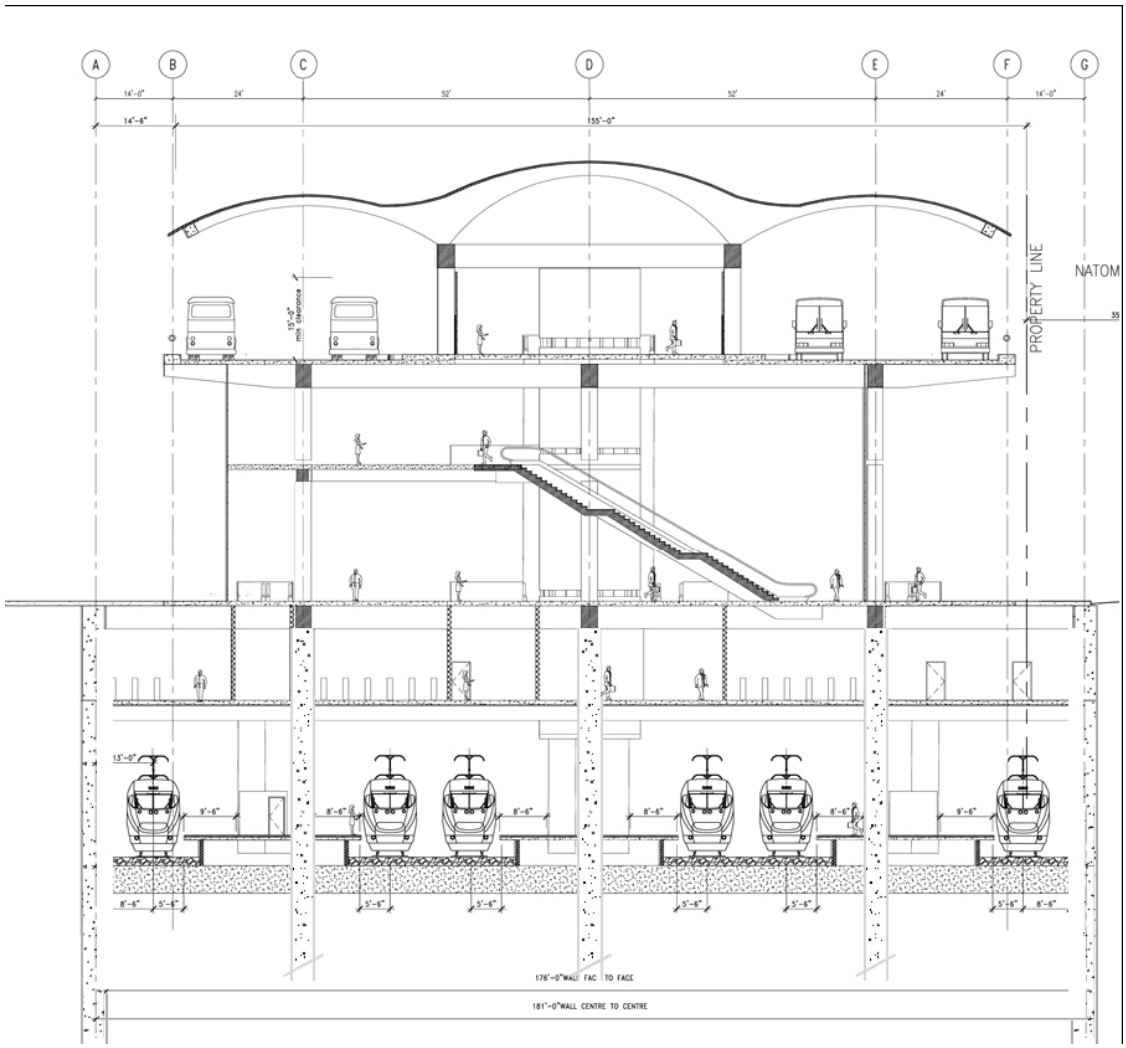


Figure 2.2, Phase 1 – Above-Grade Building

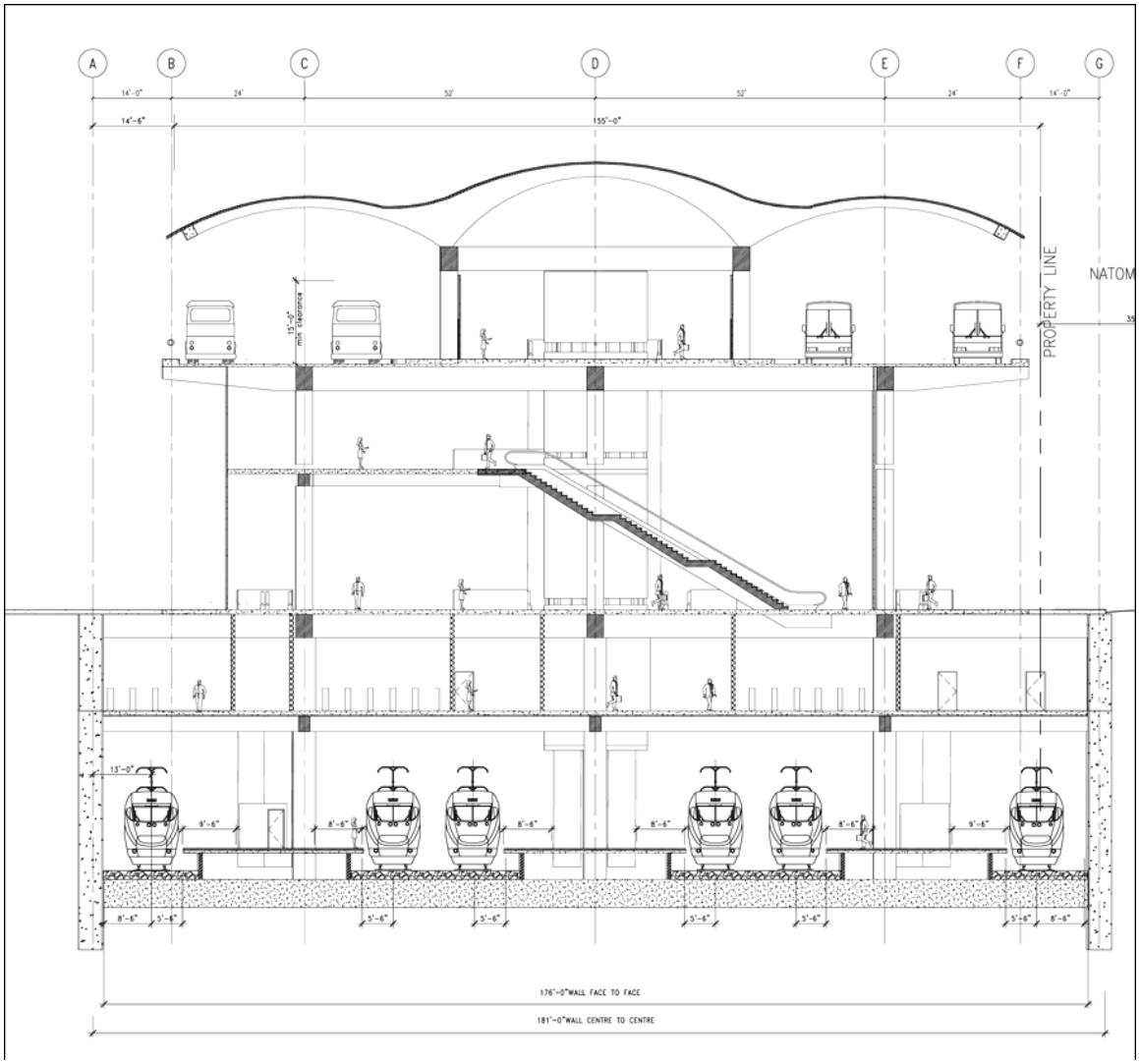


Figure 2.3, Phase 2 - Excavated Train Station

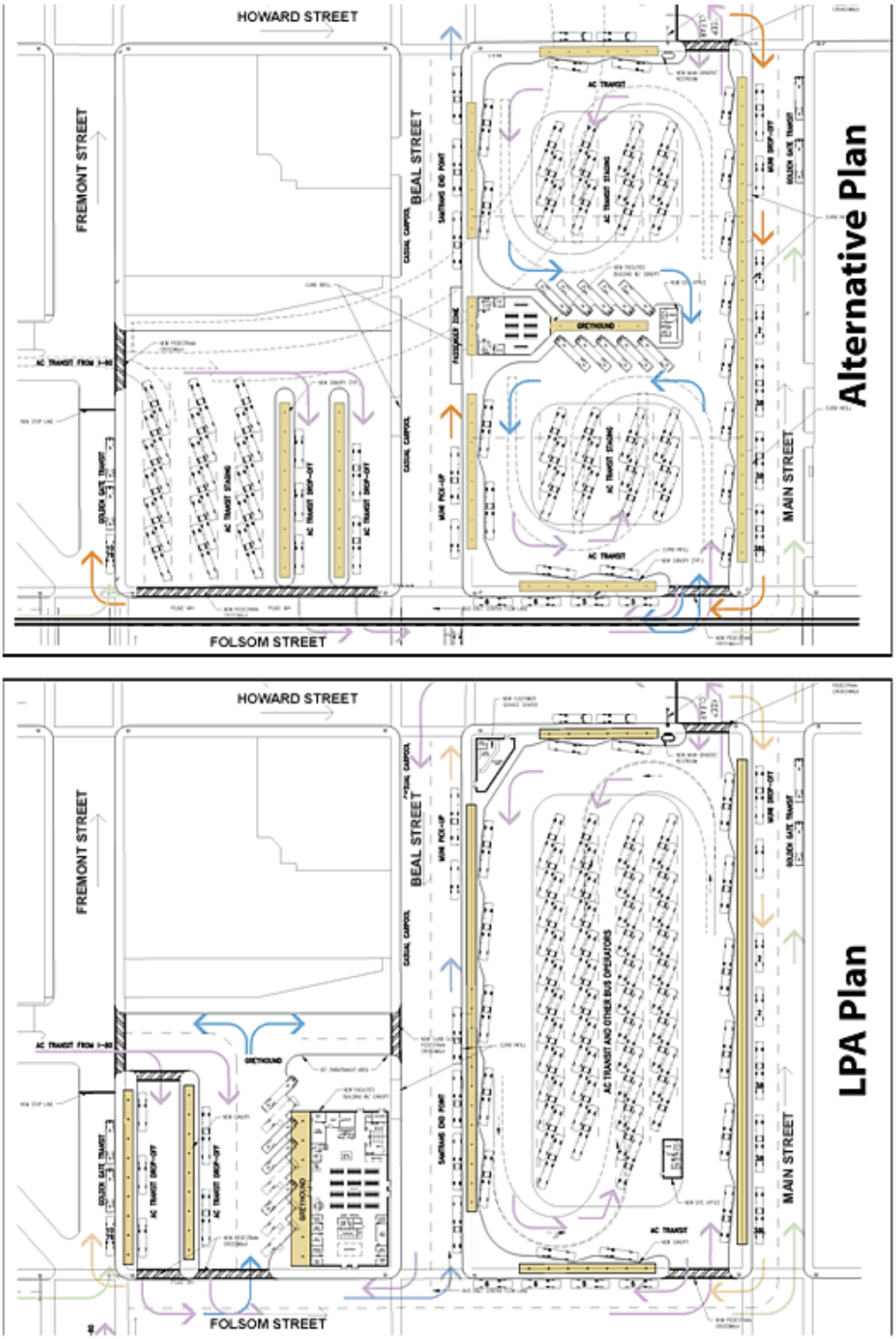


Figure 2.4, Greyhound at the Temporary Terminal - Interim Location

In Option 2, buses traveling from the I-80 off-ramp at Fremont Street could either enter the two blocks of the Temporary Terminal from Folsom Street or enter the block between Fremont and Beale Streets directly from the Fremont Street off-ramp by crossing Fremont Street at the foot of the ramp (Figure 2.4, Greyhound at the Temporary Terminal – Interim Location: LPA PLAN). Northbound through-traffic on Fremont Street would be controlled by a stoplight or stop sign at the foot of the Fremont Street off-ramp to ensure safe movement of buses into the Temporary Terminal. As indicated in Figure 2.4, Greyhound at the Temporary Terminal – Interim Location: Alternative Plan, the street segments of Beale Street between Folsom and Howard Streets, and Main Street between Folsom and Howard Streets, would be converted to two-way traffic operation to allow bus loading zones and curbside public access at the Temporary Terminal. The contra-flow bus-only lane established on Folsom Street extending from Main Street to Essex Street and passing adjacent to the Temporary Terminal would remain as described in the LPA. These elements of the project design would allow bus circulation and bus stops to be placed on all four sides of the Temporary Terminal. Circulation patterns established for the Temporary Terminal would be modified for two-way operation consistent with Design for Development guidelines in the Transbay Redevelopment Plan.

2.1.3.3 Option 3: Temporarily Relocating Greyhound to the Western End of the Transit Center on the Ground Level.

Relocating Greyhound operations to the western end of the Terminal at street level would require creation of a dedicated boarding area on Natoma Street as indicated in Figure 2.5. Natoma Street operates as a one-way eastbound alley. Buses would enter Natoma Street from westbound Howard Street via a new driveway, and would leave Natoma Street and enter First Street southbound at a signal-free intersection. In this option, buses would travel to the I-80 on-ramp via First Street and from the I-80 off-ramp via Fremont and Howard Streets. Selection of Option 3 would require that proposed Ground level retail and pedestrian sidewalk improvements at the western end of the TC Building would be deferred until Phase 2.

After Phase 2 construction is completed, Greyhound would relocate to a permanent boarding area on the Train Mezzanine level of the TC Building. A two-way bus driveway ramp would be constructed on Howard Street 250 feet east of the intersection with Second Street to allow Greyhound buses to enter the underground boarding area (Figure 2.6). The two-way ramp, used exclusively by Greyhound, would be aligned directly below or adjacent to the overhead bus ramp that provides access at the AC Transit level, passing under Natoma Street before entering the TC Building. Greyhound customer service, public waiting and ticketing area would be located on the Ground level, one level above the boarding area. Stairs, escalators, and an elevator would provide access from the Ground level waiting area to the Greyhound boarding area below.

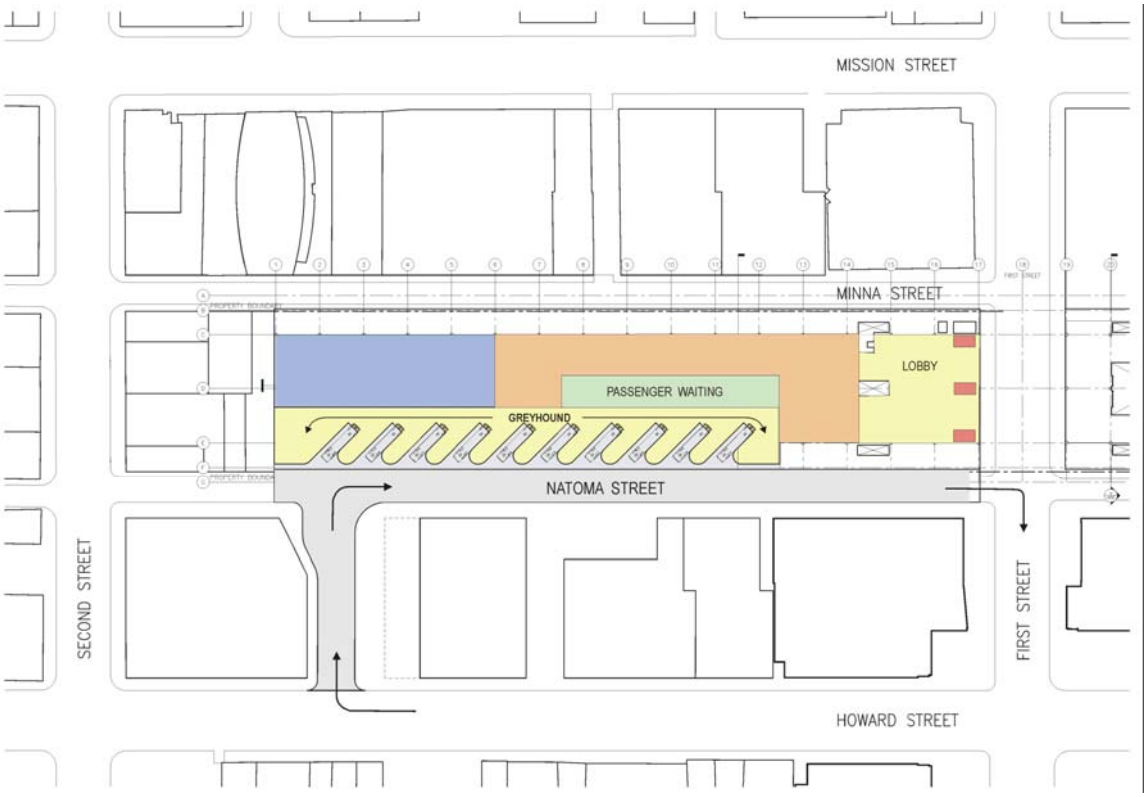


Figure 2.5, Greyhound at the West End of the Transit Center Building- Interim Location

Figure 2.6, Greyhound Permanent Boarding Area Plan and Connector Ramp

3 EVALUATION OF ENVIRONMENTAL IMPACTS DUE TO THE PROPOSED CHANGES IN THE PROJECT

3.1 Land Use/Wind/Shadow

The Refined Project would continue to provide the beneficial land use impacts described in the Final EIS/EIR (pg. 5-2), including an intensification of land uses, freeing land for development, and enhanced pedestrian circulation in the area. The beneficial impacts would extend to creating a more vibrant and cohesive neighborhood, which is consistent with the San Francisco Planning Department and Redevelopment Agency plans, policies, and guidelines for the area (Final EIS/EIR pg. 5-12 and 5-13). Although the Refined Project would reduce the height of the TC Building, the decrease in height is not sufficient to reduce shadow and wind impacts identified for the LPA, because multiple high-rise buildings would be built on the surrounding blocks under both the LPA and the Refined Project.

3.2 Displacements and Relocations

The Final EIS/EIR (pg. 5-25, Figure 5.2-3) identified 564 Howard Street as property to be acquired for construction of the TC Building and associated bus ramps, however, that property was inadvertently omitted from Table 5.2-1 (pg. 5-22) and Table 5.2-5 (pg. 5-33). The displacements and relocations required for the Transbay Transit Center Building component of the LPA are discussed in the Final EIS/EIR on pages 5-22 to 5-26. The modified TC Building and associated bus ramps would continue to require the acquisition of the property at 564 Howard Street; therefore, the text of the Final EIS/EIR is hereby corrected in this addendum as shown in Table 3.2 below.

Table 3.2, Property Acquisitions for the Transbay Transit Center Refined Project

Block	Lot	Address
Full Acquisitions		
3721	19	564 Howard Street
3721	45A	70 Natoma Street
3721	46	78-80 Natoma Street
3721	53	81 Minna Street
3721	54	65 Minna Street
3736	74	57 Tehama Street
3736	88	60 Tehama Street
3739	2	Vacant Lot on Main Street
3739	6	272 Main Street
3739	4 and 7	200 Folsom Street
Partial Acquisitions		
3721	16	546 Howard Street (northeast corner)
3719	17	101-129 Fremont Street (southern portion of the parcel)

The building located at 564 Howard Street, which was constructed in 1907, has been modified substantially over the years. Regarding this building, the San Francisco Planning Department determined the following:

In 1996 the California Office of Historic Preservation assigned 562-564 Howard Street a 6Y National Register (NR) Code (Determined ineligible for NR by consensus through Section 106 process-not evaluated for California Register (CR) or Local Listing) in 1996. According to the Planning Department's CEQA Review Procedures for Historic Resources the property is considered to be Category C, "Property Determined to not be historical resources." As a result of this categorization the subject property does not qualify for California Register or Local Listing.[2]

The building at 564 Howard Street is not located in a Historic District nor is it eligible to be listed as a National Historic Resource.[3] There is currently one business, a professional office, in 564 Howard that would be displaced under both the LPA and the Refined Project. No other uses occupy the building. Because 564 Howard Street was inadvertently omitted from Table 5.2-5 on pg. 5-33 of the Final EIS/EIR, the number of offices displaced by either the LPA as reported in the Final EIS/EIR, which would remain unchanged under the Refined Project, is hereby corrected to be 10 rather than nine. The mitigation measures identified for displacement and relocation in the Final EIS/EIR (pg. 5-34), which have been adopted and incorporated into the Project, also would reduce this displacement to a less-than-significant level.

3.3 Socio-economics

While economic and social changes resulting from a project impact are not considered significant effects on the environment pursuant to CEQA, the following update of the discussion in the Final EIS/EIR is provided for informational purposes. The Final EIS/EIR (pg. 5-35) identified potential beneficial socio-economic impacts because of the increased activity and economic vitality generated by the LPA. Although retail uses in the TC Building would be somewhat reduced under the Refined Project, the overall beneficial socio-economic effects of the entire project, including the extensive development proposed under the Transbay Redevelopment Plan, would remain.

3.4 Community Facilities and Services/Safety and Security

The community facility and service impacts identified in the Final EIS/EIR (pg. 5-37 to 5-42) resulting from increased activity and uses in the Transbay Transit Center Redevelopment Area would not be substantially altered for the Refined Project, although the Refined Project includes a somewhat smaller Transit Center Building facility than the LPA. Design guidelines for lighting, pedestrian walkways, and corridor sight lines incorporated into the Transbay Transit Center design to enhance Safety and Security (Final EIS/EIR, pg. 5-122) would also be applicable to the Refined Project. The Final EIS/EIR found that no additional staff or public service capacity would be required to respond to emergencies in the study area. Since the Refined Project would somewhat reduce the scale and uses of the reconstructed TC Building and maintain the remainder of the LPA components, no new public facility, community service, or safety and security impacts would be expected under the Refined Project.

[2] Mark Luellen, Preservation Coordinator, San Francisco Planning Department, January 6, 2006

[3] Historic Architectural Survey Report for the Transbay Terminal/Caltrain Downtown Extension Project, JRP Consulting Services, Davis, California, October 25, 2001.

3.5 Parklands/Schools/Religious Institutions

The Final EIS/EIR (pg. 5-44 and 5-45) concluded that no long-term adverse impacts on parklands, schools, and religious institutions would occur in the study area. The Refined Project, which incorporates a lower Transit Center Building, would not alter this finding. If Greyhound remains at the Temporary Terminal until Phase 2 construction is completed, establishment of the park proposed for the midblock area on the Temporary Terminal site between Main and Beale Streets, which is a benefit of the LPA, would occur later in time. This would be a temporary and less than significant impact.

3.6 Air Quality

Although the Transit Center Building would be reduced in size and the Downtown Extension would be phased such that construction of the underground rail extension and station would occur after the bus terminal and ramps are completed, the level of transit service and future patronage at the Transit Center would remain as described for the LPA in the Final EIS/EIR (pg. 5-54). As a result, transit's share of the regional mode split and the reduction in vehicle miles traveled would remain the same under the Refined Project. Therefore, the Refined Project would accrue the same air quality benefits over the 20-year planning period as the LPA, and would not create any new or increased impacts on air quality. Like the LPA, the Refined Project would conform with State Implementation Plan goals.

3.7 Noise and Vibration

The Final EIS/EIR (pg. 5-74) found no long-term noise impacts associated with the LPA except at the Bus Storage areas. Potential vibration impacts from underground train operations were identified (Final EIS/EIR pg. 5-75 and 5-76). Mitigation measures adopted and incorporated into the LPA would reduce the impacts due to vibration to a less-than-significant level. Under the Refined Project, the project components generating noise and vibration impacts would remain, and the adopted mitigation measures would have the same effectiveness in reducing impacts to a less-than-significant level.[4] No new long-term noise and vibration impacts would be created by the proposed refinements to the Transbay Transit Center design.

3.8 Geology and Seismology

Under the Refined Project, the modified structural design and construction methods for the Transit Center Building would be effective in minimizing risk from seismic events and geologic conditions in the construction area, particularly during the excavation and construction of the underground train station during Phase 2.[5] No geologic or seismic impacts would occur due to the proposed refinements to the Transbay Transit Center design.

3.9 Water Resources and Floodplains

No long-term impacts on Water Resources or Floodplains were identified in the Final EIS/EIR (pg. 5-80 and 5-81) for the Project. The Refined Project, which is the same as the LPA except for the size and construction phasing of the Transbay Transit Center, would not change this conclusion.

[4] Hugh Saurenman, ATS Consulting, Phone Conversation, February 22, 2006.
[5] Loring Wylie, Degenkolb Engineers, Phone Conversation, February 22, 2006.

3.10 Utilities

The Final EIS/EIR (pg. 5-81) concluded that the LPA would not substantially increase the demand for energy or water, thereby requiring expansion of power or water facilities. A smaller Transbay Transit Center facility with reduced retail space may slightly reduce the overall water and energy consumption due to the LPA. Construction of the Refined Project would affect sewer, water, and communications lines in the same manner as disclosed in the Final EIS/EIR (pg. 5-81 to 5-83) for the LPA because the construction envelope would be the same. Phasing may delay, but not reduce, the utility impacts associated with construction of the rail extension. As indicated in the Final EIS/EIR, pg. 5-82, LPA construction activities will require utilities to be avoided, relocated, and/or supported to prevent damage to utility systems and to minimize disruption and degradation of utility service to local customers. Coordination efforts with affected utility providers will focus on identifying potential conflicts, planning utility reroutes, and formulating strategies for overcoming problems that may arise. These procedures apply to the Refined Project as well. No new or substantially increased significant impacts on utilities would occur due to the change in the Transbay Transit Center design.

3.11 Historic and Cultural Resources

The construction of the LPA may uncover archaeological resources. The Refined Project would be constructed within the same footprint and Area of Potential Effect (APE) as the LPA, and would have the same possibility of unearthing these resources. The procedures for recovering buried resources identified in the Memorandum of Understanding among the co-lead agencies, State Historic Preservation Officer (SHPO), and the Department of the Interior would also apply to the Refined Project (refer to pg. 5-86 to 5-89 of the Final EIS/EIR). The historic structures that would be demolished to construct the LPA and identified in the Final EIS/EIR (pg. 5-92 to 5-107) include the existing Transbay Terminal and Bay Bridge Connector ramps, which have been designated as National Historic Resources. Although the Refined Project would reduce the size of the Transit Center Building, construction of the Refined Project also would require demolition of these historic resources because the APE and construction envelope for the TC Building would be the same as for the LPA. For both the LPA and the Refined Project, the demolition of historic resources would result in significant and unavoidable impacts.

3.12 Hazardous Materials

Hazardous materials would be used to fuel and clean train equipment located in the Caltrain storage yard near Fourth and Townsend Streets (Final EIS/EIR, pg. 5-111). In addition, demolition of existing buildings and construction of new facilities may expose construction workers to hazardous materials. Handling of these hazardous materials would be in conformance with California OSHA (Occupational Safety and Health Administration) and local (Maher Ordinance) guidelines and procedures. The potential to encounter hazardous materials would be the same for the Refined Project and the LPA. By following appropriate procedures, impacts from hazardous materials would be reduced to a less-than-significant level.

3.13 Visual and Aesthetics

The visual changes associated with the LPA, such as the demolition of the existing Transbay Terminal and bus ramps, would also occur under the Refined Project. The design of the reconstructed Transit Center would be contemporary and a point of visual interest. Under both the LPA and the Revised Project, the ramps would be reduced in scale and, as such, would be less visually intrusive than what currently exists. In addition, under both the LPA and the Refined Project, the Transbay Redevelopment Plan would alter the visual landscape by allowing substantial mid-rise and high-rise development in the study area and creating parks and pedestrian walkways where none currently exist. The Final EIS/EIR (pg. 5-120) concludes that although the proposed new development would alter the aesthetic nature of the area, the added visual features are common to a built-up urban area and, by following the Redevelopment Area's Design for Development guidelines, they could enhance the visual quality of the study area, which would be a beneficial impact. The Refined Project would maintain these changes to the visual and aesthetic landscape, producing the same visual and aesthetic benefits. In addition, the Refined Project would improve the visual and aesthetic quality of the LPA by: 1) reducing the size and height of the Transit Center Building; 2) narrowing the width of the Concourse and Ground level to allow expansion of the sidewalks and public plaza area as well as greater penetration of sunlight into the interior space; and 3) eliminating the second level of the bus ramps connecting to I-80.

3.14 Energy

The Final EIS/EIR (pg. 5-126) found that the increased energy consumption required for the new Transbay Transit Center, underground rail facilities, expanded transit operation, and the increased uses under Transbay Redevelopment Plan would be somewhat offset by the diminished auto use and by the sustainable design elements incorporated into the Project. As a result, the Final EIS/EIR (pg. 5-126) concluded that no energy mitigation measures would be required. The Refined Project would also entail the same energy requirements and offsets, which would be further diminished by the reduced size of the Transit Center Building and the reduction in retail uses inside the Transit Center Building. Therefore, the conclusion that no energy mitigation measures would be required for the LPA would also apply to the Refined Project.

3.15 Transit/Traffic/Parking

The Final EIS/EIR (pg. 5-142 and 5-143) found that cumulative, adverse and unmitigated traffic impacts would occur at seven intersections in the study area. Under the Refined Project, these significant and unavoidable traffic impacts would be unchanged because most of the projected traffic volume in the study area would result from the level of development proposed in the Transbay Redevelopment Project. Mitigation measures adopted and incorporated into the Project, such as having developers of Redevelopment Area properties contribute to the City's new Integrated Management System program and Intelligent Transportation System infrastructure components, would apply to the Refined Project as well.

Upon project completion, cumulative pedestrian volumes would be the same for the LPA and Refined Project, and mitigation measures adopted and incorporated into the LPA (Final EIS/EIR, pg. 5-157) that would alleviate pedestrian impacts would apply to the Refined Project. The Refined Project would improve pedestrian circulation compared to the LPA because it would create expanded sidewalks and improve public access to and public spaces within the

Transit Center. There would be no change in parking supply due to the proposed refinements to the Transbay Transit Center design. In any event, this is not considered a significant impact under the City's applicable transportation policies.

Under the Refined Project, Greyhound would have a permanent boarding area established in the Train Mezzanine level of the new Transit Center. The underground Train Mezzanine and Station area would not be completed until Phase 2. As a result, Greyhound would need an interim boarding location. Three options for the interim boarding area are included in the Refined Project. Two of the proposed interim boarding options - the Temporary Terminal (Option 2) and Natoma Street along the West End of the Transit Center (Option 3) - would produce eight additional peak hour bus trips on City streets that do not occur under the LPA. Temporarily relocating Greyhound to the AC Transit level in Phase 1 (Option 1) would not produce any additional trips on City streets since Greyhound would use the Transit Center bus ramps to access I-80. The traffic analysis for the Temporary Terminal (Option 2 in the Refined Project) presented on page 5-184 through page 5-186 in the Final EIS/EIR indicated that intersections located between the Temporary Terminal and the Bay Bridge on-ramps would operate satisfactorily except at First/Folsom and Essex/Harrison Streets, which are projected to operate at Level of Service (LOS) F with or without bus trips from the Temporary Terminal. The Final EIS/EIR concluded that bus trips operating from the Temporary Terminal and passing through First/Folsom and Essex/Harrison would not create a cumulatively considerable contribution to the intersections' congestion. This conclusion would apply to the Refined Project as well. The eight additional Greyhound trips passing through these intersections in Options 2 and 3 would occur after operations for the other bus carriers at the Temporary Terminal have ceased and have been relocated to the Terminal at the end of Phase 1, thereby removing these bus trips from congested intersections.[6]

After Phase 2 is completed, Greyhound would access its permanent boarding area in the Terminal via a new driveway located on Howard Street 250 feet east of Second Street and used exclusively by Greyhound buses. An analysis of Greyhound operation along Howard Street found that the addition of eight peak hour inbound and outbound Greyhound trips during the afternoon peak would not affect the movement of traffic along Howard Street nor substantially affect operations (projected to operate at LOS D under 2020 cumulative conditions) at the intersection of Second/Howard Streets.[7] In addition, the analysis found that Greyhound buses turning into and out of the Transit Center Building via the access driveway would not result in significant impacts to bicyclists using a bicycle lane on the north side of Howard Street because the number of Greyhound trips entering and exiting the Transit Center would be minimal. As a result, no new or substantially increased significant impacts on transit, traffic, or parking would occur due to the change in Transit Center design.

3.16 Construction Methods and Impacts

As stated in the Refined Project description, Transit Center construction would occur in two phases. The extended construction period would require mitigation measures identified in the Final EIS/EIR (pg. 5-184 to pg. 5-222), which have been adopted and incorporated into the LPA,

[6] Transbay Terminal/Caltrain Downtown Extension/Redevelopment Project EIS/EIR Transportation Assessment of Change to Traffic Flow associated with the proposed Refined Locally Preferred Alternative, Technical Memorandum, Luba C. Wyznyckyj, February 22, 2006.
[7] ibid

to be applied over a longer period of time under the Refined Project. They would remain effective in mitigating construction impacts to a less-than-significant level.

To lighten the Transit Center structure and reduce costs, the Refined Project would employ alternative construction techniques for the building's foundation and structural support system. Instead of using a grid of 1,000 piles to provide the support structure for the Transit Center, approximately 125 caissons would be required. The caissons would be drilled during the first phase of construction. Any residual construction-related noise and vibration impacts on above-ground Transit Center uses, which would have resumed operation in the new Transit Center during Phase 2 construction, would be effectively mitigated as indicated in the Final EIS/EIR (pg. 5-206 to 5-214).[8] Permanent perimeter shoring walls used to support subsequent excavation and build-out of the underground train station would be installed in Phase 1. As indicated in Geology and Seismology above, the refined structural support system would minimize risk from seismic events or geologic impacts during both phases of construction.

Hauling of excavation materials, as well as delivery and staging of construction materials, would occur as indicated in the Final EIS/EIR, with the train station construction occurring in tandem with the construction of the underground rail alignment from Fourth and Townsend Streets. By phasing rail construction, project staging areas and hauling routes would need to be maintained for a longer period of time under the Refined Project. This could delay development of the parcels used for construction staging, which is a benefit of the LPA, until Phase 2 construction is completed. Mitigation measures that require identifying truck routes and temporary street detours (Final EIS/EIR pg. 5-192 to 5-200), which were previously adopted and incorporated into the LPA, would mitigate hauling and construction-related access and circulation impacts to a less-than-significant level and would also apply to the Refined Project.

4 ENVIRONMENTAL FINDINGS

Based on the above information and analysis, the proposed revisions to the LPA (Refined Project) would not trigger the need for subsequent environmental review pursuant to Public Resources Code section 21166 and Section 15162 of CEQA Guidelines. The proposed changes in the Refined Project would not require major revisions of the Transbay Terminal/Caltrain Downtown Extension/Redevelopment Project Final Environmental Impact Statement/ Environmental Impact Report (FEIS/EIR) due to new or substantially increased significant environmental effects; no substantial changes have occurred with respect to the circumstances under which the Refined Project would be undertaken that would require major revisions of the FEIS/EIR due to new or substantially increased significant effects; and there has been no discovery of new information of substantial importance that would trigger or require major revisions of the FEIS/EIR due to new or substantially increased significant effects. In addition to the benefits that would be provided by the approved Project, the proposed Refined Project would provide the following environmentally beneficial effects:

- Reduced height and size of the building
- Reduced height and visual intrusion of the connecting bus ramp with I-80
- Expanded adjacent sidewalks and public access, including improved access for taxi and paratransit services
- Greater penetration of sunlight into the interior of the Transit Center Building

[8] Hugh Saurenman, ATS Consulting, Phone Conversation, February 22, 2006.

- Increased customer service and public waiting areas in the western end of the Transit Center Building

5 REFERENCES

Final Massing Study for the Transit Center Building, Transbay Joint Powers Authority, February 16, 2006.

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Wylie, Loring. Degenkolb Engineers, Phone Conversation, February 22, 2006.

Wyznyckyj, Luba C. Transbay Terminal/Caltrain Downtown Extension/Redevelopment Project EIS/EIR Transportation Assessment of Change to Traffic Flow associated with the proposed Refined Locally Preferred Alternative, Technical Memorandum, February 22, 2006.

Appendix

Transbay Terminal/Caltrain Downtown Extension/Redevelopment Project EIS/EIR Transportation Assessment of Change to Traffic Flow associated with the proposed Refined Locally Preferred Alternative Technical Memorandum

LCW Consulting

Memo

To: Mark Weisman, URS

From: Luba C. Wyznyckyj

Date: March 7, 2006

Re: Transbay Terminal/Caltrain Downtown Extension/Redevelopment Project EIS/EIR
Transportation Assessment of Changes to Traffic Flow associated with the proposed Refined Locally Preferred Alternative

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1. INTRODUCTION

This memorandum presents an assessment of the changes to vehicular traffic flow associated with the Refined Locally Preferred Alternative (RLPA) under consideration for adoption by the Transbay Joint Powers Authority (TJPA), within the context of the transportation analysis conducted for the *Transbay Terminal/Caltrain Downtown Extension/ Redevelopment Project Final EIS/EIR*, March 2004 (Case No. 2000.048E). The Transbay Terminal/Caltrain Downtown Extension/Redevelopment Project is referred to in this memorandum as the "Transbay Project". The changes include elimination of the top level of the planned Transbay Transit Center building (TC Building). Greyhound bus operations would be relocated to a permanent location at the west end of the below-grade Train Mezzanine level of the TC Building. Other paratransit and private bus operators planned to use the top level of the TC Building would be relocated to the AC Transit level and share space with AC Transit.

The transportation analysis in the *Final EIS/EIR* assumed that the Greyhound and miscellaneous bus operators would be located on the top level of the TC Building and would have direct access to the building from elevated bus ramps connecting with I-80. Access to the bus ramps from surface streets would be via the Bus Storage Facility Link Ramp at the new bus storage area, located at Third Street and Stillman Street. These ramps would be used by Greyhound, paratransit and private operators' buses traveling to and from U.S. 101 northbound and southbound via I-80, which would require travel via the I-80 ramps and surface streets.

The TJPA is also considering adopting a program implementation strategy that would phase construction of the TC Building in two major phases. Phase 1 would include the above-grade portion of the TC Building. Construction of the below-grade portion of the TC Building that would house the Train Station and Greyhound bus operations area would occur in Phase 2. Until the completion of Phase 2 construction, Greyhound would continue operations at a temporary location.

This memorandum assesses the potential impacts of the relocation of the Greyhound operations for Phase 1 conditions, during which time only the above-grade bus terminal structure is constructed and occupied, and for Phase 2 conditions, when the above-grade terminal and below-grade rail terminal are both constructed and occupied.

Upon completion of Phase 2, Greyhound would move to the permanent boarding area located to the west end of the train mezzanine level, below the ground floor public customer service waiting and ticketing areas (See attached drawings A100 Refined LPA Illustrative Site Plan, and A101 Refined LPA Train Platform and Mezzanine Level Plans).

2. PROJECTED GREYHOUND BUS ACTIVITY

Projections of Greyhound activity during the weekday PM peak hour was based on *New Transbay Terminal Building Program Update, Section 6.0 Space Needs and Functional Requirements*. During the PM peak hour, there are projected to be a total of 111 inbound and 333 outbound passenger trips, results in a total of 444 passenger trips to and from the terminal. Assuming an average of 40 passengers per bus, there would be a maximum of 8 inbound and 8 outbound bus trips entering and exiting the terminal during the weekday PM peak hour.

3. PHASE 1 GREYHOUND OPERATIONS

The *Final EIS/EIR* assumed that the Temporary Terminal would be in operation for approximately five years while the new TC Building is under construction. When the new TC Building begins operation is was assumed that all bus operations at the Temporary Terminal would relocate to the TC Building, and the Temporary Terminal would be demolished.

Under the RLPA currently under consideration, following construction of Phase 1 all bus operators would relocate to the TC Building, with the possible exception of Greyhound. Under Phase 1 of the RLPA three location options are being considered for temporary Greyhound operations until a permanent location for Greyhound is constructed in Phase 2, including:

A) Greyhound Remaining for an extended period at the Temporary Terminal,
B) Relocating Greyhound to the AC Transit level in Phase 1 with scheduled sharing of bus berths with AC Transit, and
C) Relocating Greyhound to the western end of Phase 1 of the new TC Building at the ground floor level.

3.1 Relocating to the AC Transit Level

Relocating Greyhound operations to the AC Transit level in Phase 1 would not result in substantial changes to Greyhound bus operations or access as proposed in the *Final EIS/EIR*. Access to and from the Transbay Terminal Center building would still be via the ramps connecting with I-80 or through Bus Storage Link Ramps through the bus storage area at Third Street and Stillman Street, as anticipated in the certified *Final EIS/EIR*.

3.2 Remaining for an Extended Period at the Temporary Terminal until Phase 2 is complete

The *Final EIS/EIR* included a discussion of the construction impacts associated with the Transbay Project, which included the analysis the impact of the temporary terminal operations on the intersections in the vicinity of the temporary terminal. This analysis assumed that all buses using the existing Transbay Terminal would use local streets to gain access to their specified temporary terminals.

Two options for location of Greyhound operations at the Temporary Terminal are under consideration. Drawing A132 shows the option that would locate the Greyhound operations on Assessors Block 3738, bounded by Folsom, Beale and Fremont Streets, referenced in Figure 2.2.8 of the *Final EIS/EIR*. Drawing A142 shows another option currently under study that would locate Greyhound on Assessors Block 3739, bounded by Folsom, Main, Beale and Howard streets. To make room for Greyhound on this block, some AC Transit buses would move across the street to the block bounded by Folsom, Beale and Fremont Streets.

Drawing A413 shows an enlarged partial site plan of the concept shown in Drawing A142, with Greyhound operations on the center of Assessors Block 3739, with passenger access on Beale Street. Location of Greyhound as shown in Drawing A413 would be preferred if Greyhound would need to continue operations at the Temporary Terminal until Phase 2 is complete.

The street segment of Beale Street between Folsom and Howard Streets, and Main Street between Folsom and Howard Streets, would be converted to two-way traffic to allow bus loading zones and curbside public access at the Temporary Terminal. The contra-flow bus-only lane established on Folsom Street extending from Main Street to Essex Street and passing adjacent to the Temporary Terminal would remain as originally planned in the *Final EIS/EIR*. The contra-flow bus-only lanes would allow bus circulation and passenger bus stops on all four sides of the Temporary Terminal.

Access to the temporary terminal would be through Folsom and Howard streets for the option shown in Drawing A413, and from Folsom, Fremont and Beale streets for the option shown in Drawing A132. The analysis in the *Final EIS/EIR* assumed the provision of a westbound contra-flow lane on Folsom Street to serve primarily AC Transit and Greyhound buses traveling from the Temporary Terminal to the eastbound I-80 on-ramps at First and Essex streets. The intersection analyses for PM peak hour operations indicated that, in general, intersection operating conditions with the temporary terminal operations would be acceptable, except at the intersections of First/Folsom and Essex/Harrison which would operate at LOS F without and with the bus trips. It was determined that the traffic generated by the temporary terminal operations would not represent a considerable contribution to operations under existing conditions, and that there would be no significant traffic impacts at these intersections.

If Greyhound operations were to remain at the temporary terminal currently proposed for Greyhound operations for an extended period, the 8 inbound and 8 outbound bus trips during the PM peak hour would not substantially affect traffic operations. The number of Greyhound bus trips would be substantially fewer than the total number of bus trips analyzed in the *Final*

EIS/EIR for temporary terminal operations, and therefore the conclusion that there would be no severe traffic impacts would remain.

3.3 Temporarily Relocating Greyhound to the Western End of the Terminal at the Ground Floor Level

Under this option, Greyhound temporary operations during Phase 1 would be relocated to a dedicated curb area on Natoma Street as shown in Drawing A213. Natoma Street operates as a one-way eastbound alley, and buses would access Natoma Street from westbound Howard Street via a new driveway, and would leave Natoma Street to access First Street southbound at an unsignalized intersection. In this option, buses would travel to the I-80 on-ramp via First Street, and from the I-80 off-ramp via Fremont and Howard Streets.

As indicated above, the addition of 8 inbound and 8 outbound bus trips to the surface streets is not anticipated to contribute to significant worsening of operating conditions at nearby study intersections. It is likely that Greyhound buses would travel through intersections that would operate poorly (e.g., the intersection of First/Folsom Street to access I-80 eastbound), but the vehicle contribution would be minimal and the bus operations would not adversely affect traffic operating conditions.

4. PHASE 2 GREYHOUND OPERATIONS

The transportation analysis included in the *Final EIS/EIR* was conducted for future year 2020 conditions. As indicated in the *Final EIS/EIR*, the San Francisco County Transportation Authority (SFCTA) countywide travel demand forecasting model (SFCTA Model) was used to develop the travel forecasts for development and growth through the year 2020 in the region, as well as to determine the travel demand to and from the South of Market area (area roughly bounded by The Embarcadero, Market Street, South Van Ness Avenue and King Street).

The traffic impact analysis for the Transbay Project analyzed 27 study intersections in the South of Market area. Under 2020 Baseline plus Project and 2020 Cumulative conditions, the Transbay Project's contribution was considered significant at seven of the 27 study intersections. While improvements at individual intersections may reduce localized congestion somewhat, they may not mitigate operating conditions to less than significant levels. As a result of constraints at downstream intersections and the I-80/U.S. 101 on-ramps and mainline, mitigation measures for the seven intersections were not proposed and the impacts associated with the Transbay Project were considered significant and unavoidable.

Table 1 presents the year 2020 Cumulative operating conditions at intersections in the immediate vicinity of the Transbay Transit Center, and indicates whether that Transbay Project was determined to contribute to the significant adverse impacts at intersections operating at LOS E or LOS F conditions. Of the 13 study intersections in the vicinity of the Transbay Transit Center (and through which Greyhound buses may travel), 9 intersections would operate at LOS E or LOS F conditions, and the Transbay Project was determined to contribute to significant cumulative impacts at 4 of the 9 intersections.

Table 1
2020 Cumulative Conditions – Weekday PM Peak Hour
Intersection Operating Conditions and Project Impact Determinations

Study Intersection	Avg Delay per Vehicle / LOS	Project Impact Determination
Second/Mission	31.6 / D	–
First/Mission	> 60 / F	Significant Impact
Fremont/Mission	30.5 / D	–
Second/Howard	27.3 / D	–
First/Howard	> 60 / F	Significant Impact
Fremont/Howard	42.4 / E	Significant Impact
Second/Folsom	> 60 / F	Significant Impact
First/Folsom	> 60 / F	Not a Significant Impact
Fremont/Folsom	26.8 / D	–
Second/Harrison	> 60 / F	Not a Significant Impact
Essex/Harrison	> 60 / F	Not a Significant Impact
First/Harrison	> 60 / F	Not a Significant Impact
Fremont/Harrison	> 60 / F	Not a Significant Impact

Source: *Transbay Terminal/Caltrain Downtown Extension/ Redevelopment Project Final EIS/EIR,* March 2004 (Tables 5.19-3 and 5.19-4).

Under proposed Phase 2 operations, Greyhound buses would use surface streets to travel between the terminal at the train mezzanine level and either I-80 or U.S. 101, and would travel though some intersections identified above that would operate at LOS E or LOS F, and to which the Transbay Project was determined to contribute to significant impacts. The distribution of buses using I-80 versus U.S. 101 is not known. Buses accessing the driveway on Howard Street would travel from either the I-80 westbound off-ramp at Fremont Street, or from the I-80 eastbound (U.S. 101 northbound) off-ramp at the intersection of Fourth/Bryant. Buses traveling to the site from the different freeway off-ramps would use different streets, however, all inbound buses would travel through the intersection of Fremont/Howard which would operate at LOS E under 2020 Cumulative conditions, and which the Transbay Project would adversely impact. The addition of up to 8 bus tips through these intersections during the PM peak hour would not substantially change the results of the intersection LOS analysis in the *Final EIS/EIR*.

Howard Street between First and Second Streets contains four westbound travel lanes, and the intersection of Howard/Second is projected to operate at LOS D during the 2020 Cumulative weekday PM peak hour conditions. As noted above, up to 8 inbound bus trips would travel westbound on Howard Street and turn right into the driveway connecting to the below-grade Greyhound operations area within the TC Building. The arrival of 8 buses during the PM peak hour would not result in substantial queuing into the driveway, as this driveway would only serve Greyhound buses.

Buses leaving the terminal would be required to turn right onto Howard Street westbound. The driveway would be located about 250 feet east of the intersection of Second/Howard, which

would provide a sufficient merge distance for buses continuing westbound on Howard Street or turning left onto Second Street southbound. The addition of up to 8 outbound bus trips during the PM peak hour would not substantially affect operations at the intersection of Second/Howard (projected to operate at LOS D under 2020 Cumulative conditions), and would not substantially increase traffic volumes at intersections operating at LOS E or F under the 2020 Cumulative conditions.

It should be noted that a bicycle lane is located on the north side of Howard Street, and the new driveway access would increase the potential for conflicts between bicyclists and buses. The driveway would only serve Greyhound operations, which would therefore limit the potential for increased conflicts, and Greyhound operations on Howard Street would not result in significant impacts to bicyclists.