

No Build/TSM Alternative

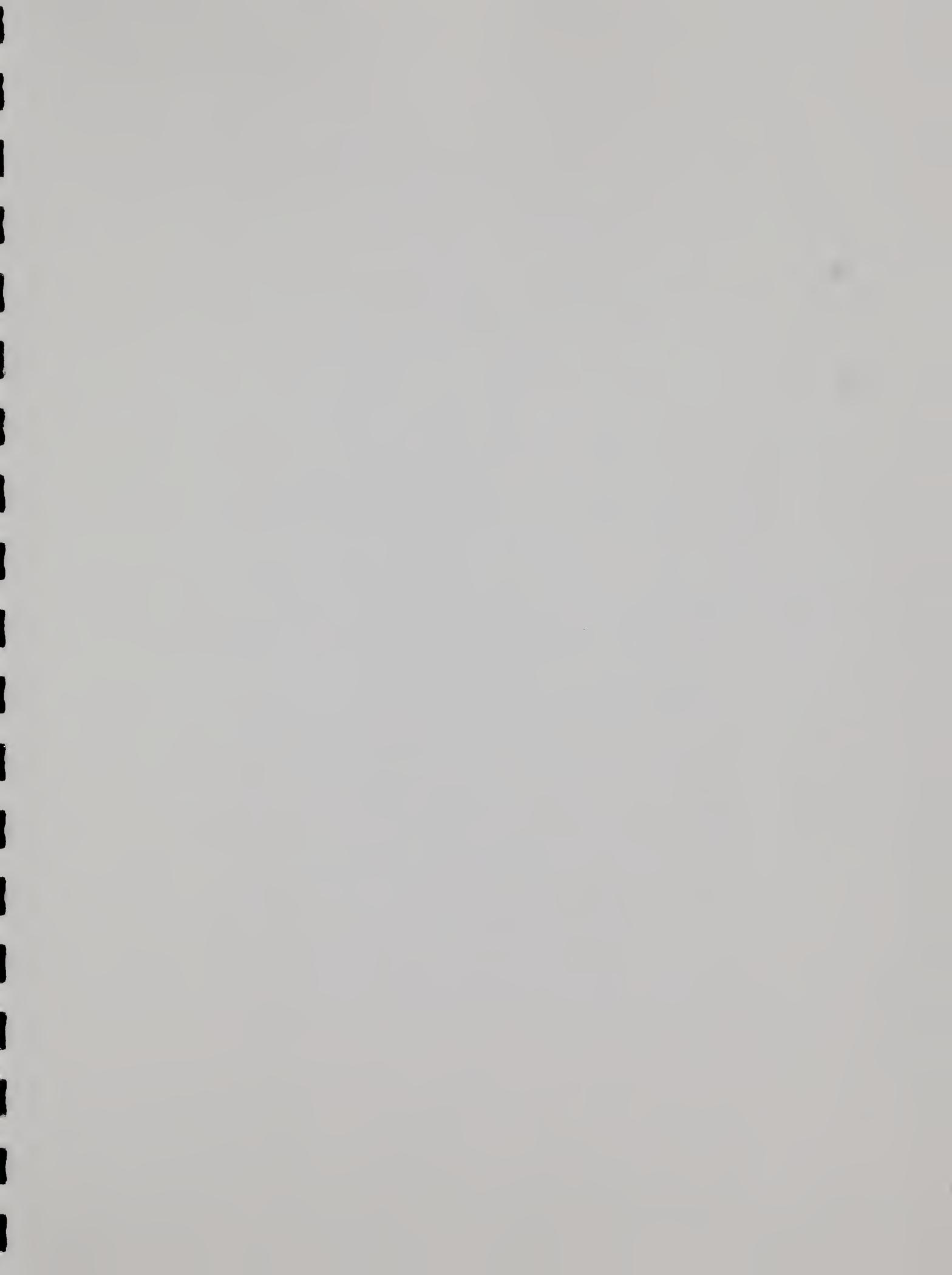
Capital equipment and facilities associated with the No Build/TSM Alternative would be funded with 50 percent federal Section 5309 Bus Capital and 50 percent state and local funds. There would be no capital or operating deficits associated with the No Build/TSM Alternative.

Light Rail Alternative-Initial Operating Segment

The IOS would utilize mostly local capital funds, but it would require a small amount of state and federal enhancement funds. The IOS would reflect the local financial commitment to FTA when federal funds are solicited for the New Central Subway at a future date. No capital or operating deficits would be associated with the IOS.

Light Rail Alternative-New Central Subway

The New Central Subway phase of the Light Rail Alternative would require 74 percent capital funding from FTA. It is also likely that the New Central Subway would require additional funding from unidentified local and/or state sources in order to meet local capital match requirements, and also to fund its higher operating costs. However, it is estimated that there would be no capital or operating deficits associated with the New Central Subway.



9.0 COORDINATION AND CONSULTATION

9.1 NOTICE OF INTENT/NOTICE OF PREPARATION

A Notice of Intent (NOI) was prepared and distributed by the Federal Transit Administration in the Federal Register on October 25, 1996. A Notice of Preparation was distributed on October 18, 1996, by the San Francisco Planning Department and amended on June 27, 1997 to add the maintenance facility sites (see Appendix F).

9.2 PUBLIC INVOLVEMENT PROGRAM

The DEIS/DEIR builds on community input received over the past nine months:

- In November 1997, more than 100 interested citizens attended a pair of scoping meetings to learn more about the Third Street Light Rail Project and share their ideas about the proposed light rail line.
- The Community Advisory Group (CAG), a body of neighborhood representatives, has met throughout the planning process to provide public comments, discuss technical findings and make recommendations on the project.
- Early in 1997, MUNI hosted a series of neighborhood workshops in Visitacion Valley/Little Hollywood, Bayview Hunters Point, Potrero Hill, South of Market, and Chinatown/ Downtown, to discuss the project with the community. Over 300 people attended the workshops.
- MUNI has made over 20 presentations on the Project to community groups.
- Newsletters on the Project are mailed to about 5,000 persons as a means of providing information to the public on project development.

As a result of public input, MUNI modified existing design options and added new ones to ensure that the Project fully reflects the community's desires. MUNI plans to continue their on-going public involvement program during the review period for this DEIS/DEIR and during the response to comments, selection of a Preferred Investment Strategy, final design, construction and environmental compliance monitoring.

9.3 COMMUNITY ADVISORY GROUP

MUNI established a Community Advisory Group (CAG) early in the planning process to provide input to the identification and selection of design options for the Light Rail Alternative and to help select the options to carry forward for environmental review. The CAG is composed of a broad cross-section of stakeholder groups from the six primary neighborhoods in the Third Street Corridor: Visitacion Valley, Little Hollywood, Bayview Hunters Point, Potrero Hill, South of Market, and Chinatown/Downtown. Prior to the DEIS/DEIR, six meetings were held with the CAG. The 31 CAG members, listed below, represent the various neighborhoods along the Third Street Corridor.

Doug Atkins - Lower Potrero Hill Neighborhood Association
Ena Aguirre - Bayview Hunters Point Project Area Committee
Lewis Ames - San Francisco Planning and Urban Research
Don Bertone - Little Hollywood Association
Wendy Brummer-Kocks - Southeast Alliance for Environmental Justice
Janet Carpinelli - Lower Potrero Hill Neighborhood Association
Michele Daniels - Bayview Hunters Point Project Area Committee

Jim Firth - Potrero Hill Active
 Neighbors League
 Anita Hill - Yerba Buena Gardens Alliance
 Henry Holmes - Urban Habitat Program
 Jasmine Kaw - Chinatown Resource Center/Chinatown TRIP
 Michael Kwok - Planning for Elders
 Enid Lim - Chinatown TRIP
 Michael Mah - SFCTA CAC
 Sopenia Maxwell - Bayview Hunters Point Project Area Committee
 Harold McCoy - Bayview Merchants Association
 Dick Millet - Potrero Boosters
 Linda Mjellen - Union Square Association
 Sam Murray - New Bayview Committee
 Rose Pak - Chinese Chamber of Commerce
 Pauline Peele - ROSES
 Alex Pitcher - South Bayshore Community Development Corporation
 Juan-Thomas Rehbok - San Francisco Bicycle Coalition
 Dwayne Robinson - Enterprise Community Council
 Norman Rolfe - San Francisco Tomorrow
 Sabrina Smith - Visitacion Valley Merchants Association
 Marlene Tran - Asian Residents Association
 Lynn Valente - Greater Market Street Association
 Dorris M. Vincent - Bayview Hunters Point Project Area Committee
 Jim West - TODCO
 Rev. Samson Wong - Visitacion Chinese Baptist Church

9.4 TECHNICAL ADVISORY COMMITTEE

MUNI established a Technical Advisory Committee (TAC) to meet monthly during the project planning process and environmental review. The TAC is composed of representatives of public agencies and City departments that will be involved in approving or permitting the Project. TAC members follow:

Henry Anderson - PUC	Dartan Ito – JPB	Jim Nelson – MUNI
Alec Bash - Port	Cliff Jarrard – Port	Ron Niewiarawski - MUNI
Bruce Bernhard - FTA PMO	Lou Johnson – MUNI	Sue Olive - MUNI
Jose Campos - Redev.	Brian Kalahar – Planning	Bob Olson - MUNI
David Chan - TA	Douglas Kimsey – MTC	Byron Rhatt, Redev.
Carmen Clark - TA	Lisa King – Redev.	Ken Rich - MUNI
Eric Cordoba - TA PMO	Eric Kjelsberg – DPW	Noreen Rodriguez - Caltrans
Brian Cunningham - MUNI	Jill Manton - Art Commission	Bijan Sartipi - Caltrans
Paul Czechowicz - MUNI	Jonathan Miller – MUNI	Charlie Sciammas - MUNI
Regina Davis - Redev.	Dave Minister - ICF Kaiser	Kambiz Shadan - MUNI
Peg Divine - MUNI	Javad Mirabdal – DPT	Peter Straus - MUNI
Ray Favetti - MUNI	Jose-Luis Moscovich – TA	Dave Stumpo - MUNI
Jack Fleck - DPT	Stanley Muraoka - Redev.	Ray Sukys - FTA
Drew Howard - MUNI	Bill Neilson – MUNI	Donna Turchie - FTA

TA = San Francisco Transportation Authority
 JPB = Joint Powers Board
 REDEV = San Francisco Redevelopment Agency
 DPW = San Francisco Department of Public Works

FTA = Federal Transit Administration DPT = Department of Parking and Traffic
 TA/PMO = Project Management Oversight for the Transportation Authority
 PLANNING = San Francisco Planning Department

9.5 AGENCY CONSULTATION

While preparing this EIS/EIR, FTA and the City consulted with the State Historic Preservation Officer for cultural resources, Section 106 analysis (see Appendix F) and with the Bay Conservation and Development Commission (BCDC) staff and the Port of San Francisco on use of Waterfront property for the new maintenance facility. In addition, as described in the previous Section 9.4, several agencies were represented on the Technical Advisory Committee that met regularly during development of the alternatives definition and screening and development of the environmental documents. Agencies and City departments actively consulted included: Caltrans, the San Francisco Transportation Authority, the San Francisco Redevelopment Agency, the Port and Department of Public Works. A list of persons and agencies consulted is provided below.

9.6 PERSONS AND ORGANIZATIONS CONSULTED (EIS/EIR DISTRIBUTION)

Sharon Banks
General Manager
A. C. Transit District
1600 Franklin Street
Oakland, CA 94612

Wayne S. White
Field Supervisor
U.S. Fish and Wildlife Service
3310 El Camino Ave., Suite 130
Sacramento, CA 95821-6340

Bill Wong
California Division
Federal Highway Administration
980 Ninth Street, #400
Sacramento, CA 95814

Joseph Steinberger
Bay Area Air Quality Management
939 Ellis Street
San Francisco, CA 94109

Claudia Nissley
Western Regional Office
Advisory Council on Historic
Preservation
730 Simms Street, #410
Golden, CO 80401

Lawrence Dahms
Executive Director
Metropolitan Transportation
Commission
101 Eight Street
Oakland, CA 94607-4700

CA Office Intergovernmental
Management
State Clearinghouse
1400 Tenth Street
Sacramento, CA 94109

Sally Germain
Association of Bay Area
Governments
101 Eighth Street
Oakland, CA 94607

Gerald Haugh
General Manager
SAMTRANS
P. O. Box 3006
San Carlos, CA 94070

Robert I. Remen
Executive Director
California Transportation
Commission
1120 N. Street, #2233
Sacramento, CA 95814

William Travis
Executive Director
BCDC
30 Van Ness Avenue, #2011
San Francisco, CA 94102

Tom Margro
BART
800 Madison Street
Oakland, CA 94607

Carney Campion
General Manager
Golden Gate Bridge HTD
P.O. Box 9000, Presidio Station
San Francisco, CA 94129-0601

Brian Hunter
Regional Manager
California Department of Fish &
Game
7329 Silverado Trail
Napa, CA 94558

James M. Strock
Director
CA Environmental Protection Agency
555 Capitol Mall, #235
Sacramento, CA 95814

Steven Hill
Regional Water Quality Control
Board
2101 Webster Street, #500
Oakland, CA 94612

Harry Yahata
District Director
Caltrans District 4
P. O. Box 23660
Oakland, CA 94623-0660

Cherilyn Widell
Historic Preservation Officer
California Dept. of Parks and
Recreation
1416 Ninth Street, #1442-7
Sacramento, CA 95814

Brian O'Neill
National Park Service
Fort Mason, Building #201
San Francisco, CA 94123

Office of Federal Activities
Environmental Protection
Agency
75 Hawthorne Street
San Francisco, Ca. 94105

Regulatory Branch
U.S. Army Corps of Engineers
211 Main Street
San Francisco, CA 94105

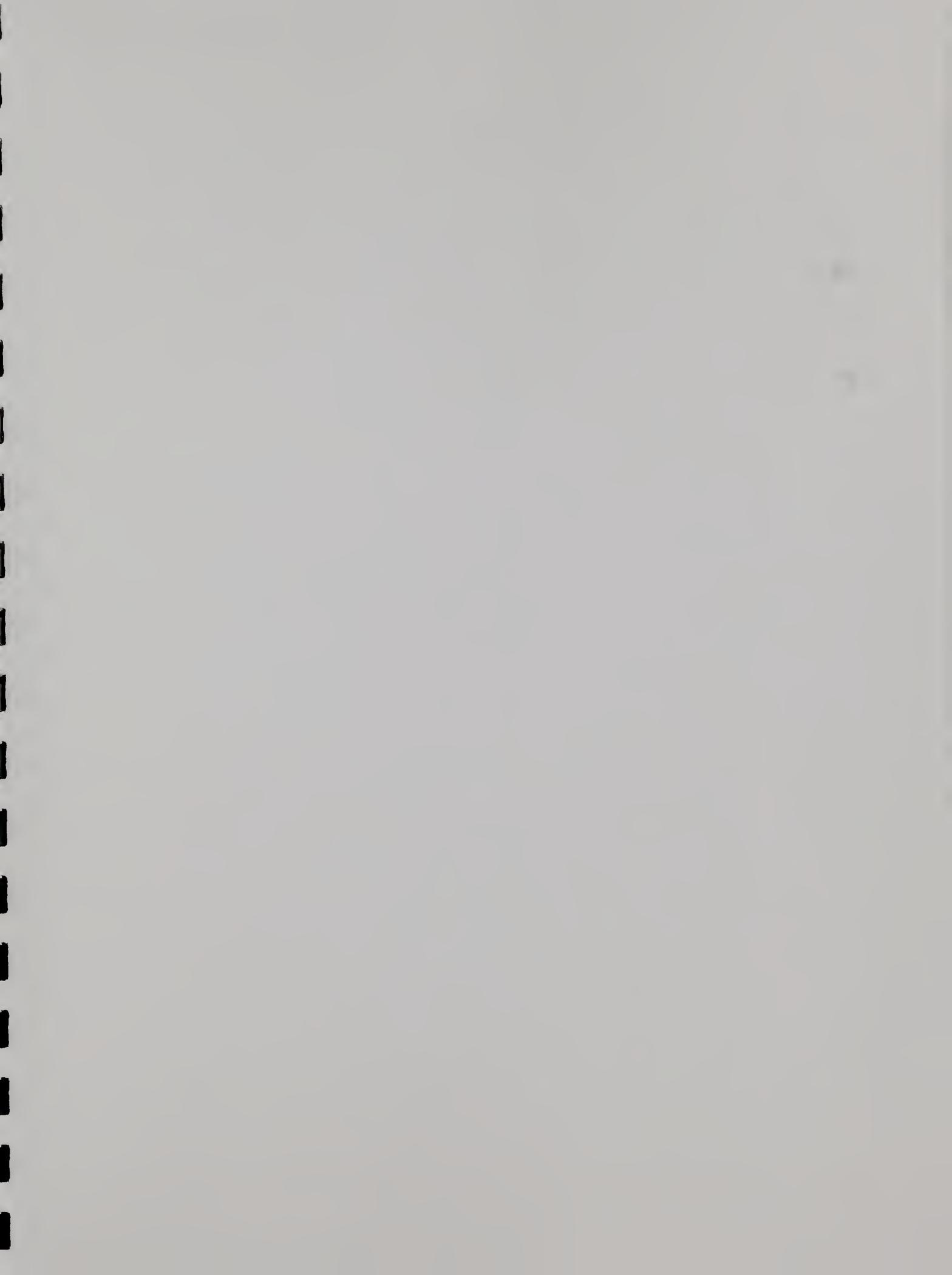
Peter Douglas
Executive Director
California Coastal Commission
45 Fremont Street
San Francisco, CA 94105

Commanding Officer
U.S. Coast Guard Pacific Area
Coast Guard Island
Alameda, CA 94501

Dave Plummer/Mary Griggs
California State Lands
Commission
1807 13th Street
Sacramento, CA 95814

William Ivers
Department of Boating &
Waterways
1629 "S" Street
Sacramento, CA 95814

Willie Taylor
Director
Office of Environmental Policy
and Compliance
U.S. Department of the Interior
MS 2340
1849 C Street, NW
Washington, D.C. 20240



APPENDICES

- A. List of Preparers**
- B. Objectives and Policies
Relevant to the Third Street
Corridor**
- C. Hazards (Soil Analysis,
Groundwater Quality)**
- D. Light Rail Alternative Bus Service
Plan A and Bus Service Plan B
Route Maps**
- E. Transportation Analysis
Technical Information**
- F. Notice of Intent, Notice of
Preparation, and Correspondence
and Memorandum Of Agreement
with the State Historic
Preservation Office (SHPO)**

**APPENDIX A
LIST OF PREPARERS**

U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL TRANSIT ADMINISTRATION

201 Mission Street, Room 2210
San Francisco, CA 94105

Robert Hom, Office of Program Development
Donna Turchie, Project Coordinator

SAN FRANCISCO MUNICIPAL RAILWAY (MUNI)

949 Presidio Avenue
San Francisco, CA 94115

Kam Shadan, Project Director
Sue Olive, Project Manager
Peter Straus, Director of Service Planning
Ken Rich, Project Coordinator

CITY AND COUNTY OF SAN FRANCISCO PLANNING DEPARTMENT

1660 Mission Street, 5th Floor
San Francisco, CA 94103

Hillary Gitelman, Environmental Review Officer
Brian Kalahar, Project Coordinator

SAN FRANCISCO DEPARTMENT OF PARKING AND TRAFFIC

25 Van Ness Avenue, 3rd Floor
San Francisco, CA 94102

Jack Fleck, Traffic Analysis
Javad Mirabdol, Traffic Analysis
Rowena Chu, Traffic Analysis

EIS/EIR CONSULTANTS

The Duffey Company
414 Jackson Street, Suite 404
San Francisco, CA 94111

Marilyn Duffey, Project Manager
Mara Feeney, Assistant Project Manager
David Parisi, Transportation Manager, Parking and Non-Motorized Transportation Analysis
Rebecca Kohlstrand, BCDC Coordination and Transportation Analysis
Michele Bellows, Peer Review

ICF Kaiser Engineers, Inc.
2101 Webster Street, Suite 1000
Oakland, CA 94612-3430

R. David Minister, Alternatives
Mark Weisman, Alternatives, Purpose and Need, Visual, Community Facilities and Services,
Utilities
Deborah Dickerson, Report Publications Coordinator

Korve Engineering
155 Grand Avenue, Suite 400
Oakland, CA 94612

Luba Wyznyckyj, Transit and Freight Analysis

Baseline Environmental Consultants
5900 Hollis Street, Suite D
Emeryville, CA 94608

Yane Nordhav, Hazards, Water Quality, Ecology and Biology
Rhodora Delrosario, Air Quality

Gabriel Roche
10933 Cotter Street
Oakland, CA 94605

Janet Roche, Socioeconomics and Environmental Justice
Michael Fajans, Land Use and Socioeconomics

David Chavez & Associates
P.O. Box 52
Mill Valley, CA 94941

David Chavez, Archeology

Dames & Moore
221 Main Street, Suite 600
San Francisco, CA 94105-1917

Michael Corbett, Historic Properties
Denise Bradley, Historic Properties

Harris Miller Miller & Hanson
15 New England Executive Park
Burlington, MA 01803

Hugh Saurenman, Noise and Vibration

G. Richard Swanson and Associates
833 Market Street, Suite 905
San Francisco, CA 94103-1814

Dick Swanson, Financial Feasibility

Manuel Padron and Associates
1175 Peachtree Street, Suite 414
Atlanta, Georgia 30361

John Mason, No Build/TSM and Light Rail Alternatives Operating Plan and Operating Cost
Jim Baker, No Build/TSM and Light Rail Alternatives Operating Plan and Operating Cost
Dennis Markham, Evaluation of Alternatives

**APPENDIX B
OBJECTIVES AND POLICIES RELEVANT TO
THE THIRD STREET LIGHT RAIL CORRIDOR**

The text below summarized adopted objectives and policies relevant to the Third Street Light Rail project from the San Francisco General Plan and other plans described in Section 4.1.1.

COMMERCE AND INDUSTRY ELEMENT

Objective 4: Improve the Viability of Existing Industry in the City and the Attractiveness of the City as a Location for New Industry.

Policy 7: Improve public and private transportation to and from industrial areas.

TRANSPORTATION ELEMENT

Objective 1: Meet the Needs of all Residents and Visitors for Safe, Convenient and Inexpensive Travel within San Francisco and Between the City and Other Parts of the Region, While Maintaining the High-Quality Living Environment of the Bay Area.

Policy 1.1: Involve citizens in planning and developing transportation facilities and services, and in further defining objectives and policies as they relate to district plans and specific projects.

Policy 1.3: Give priority to public transit and other alternatives to the private automobile as the means of meeting San Francisco's transportation needs, particularly those of commuters.

Policy 1.5: Coordinate regional and local transportation systems and provide for interline transit transfers.

Policy 1.6: Ensure choices among modes of travel and accommodate each mode when and where it is most appropriate.

Objective 2: Use the Transportation System as a Means for Guiding Development and Improving the Environment.

Policy 2.1: Use rapid transit and other transportation improvements in the city and region as the catalyst for desirable development, and coordinate new facilities with public and private development.

Policy 2.2: Reduce pollution, noise and energy consumption.

Policy 2.3: Design and locate facilities to preserve the historic city fabric and the natural landscape, and to protect views.

Policy 2.4: Organize the transportation system to reinforce community identity, improve linkages among interrelated activities and provide focus for community activities.

Policy 2.6: In conversion and re-use of inactive military bases, provide for a balanced, multi-modal transportation system that is consistent with and complementary to the planned land use and the local and regional transportation system.

Objective 4: Maintain and Enhance San Francisco's Position as the Hub of a Regional, City-Centered Transit System.

Policy 4.1: Rapid transit lines from all outlying corridors should lead to stations and terminals that are adjacent or connected to each other in downtown San Francisco.

Policy 4.2: Increase transit ridership capacity in all congested regional corridors.

Policy 4.4: Integrate future rail transit extensions to, from, and within the city as technology permits so that they are compatible with and immediately accessible to existing BART, CalTrain or Muni rail lines.

Policy 4.5: Provide convenient transit service that connects the regional transit network to major employment centers outside the downtown area.

Policy 4.7: Locate outlying rapid transit stations close to the commercial and high-density residential districts and employment centers of each community.

Objective 5: Support and Enhance the Role of San Francisco as a Major Destination and Departure Point for Travelers Making Interstate, National and International Trips.

Policy 5.4: Encourage the use of public transportation and improve its services between the airport and all Bay Area communities, for airport employees as well as air passengers.

Objective 9: Improve Bicycle Access to San Francisco from All Outlying Corridors

Policy 9.1: Allow bicycles on regional transit vehicles such as trains and ferries whenever practical.

Policy 9.2: Where bicycles are prohibited on roadway segments, provide parallel routes accessible to bicycles or shuttle service that transport bicycles.

Objective 11: Maintain Public Transit as the Primary Mode of Transportation in San Francisco and as a Means through Which to Guide Future Development and Improve Regional Mobility and Air Quality.

Policy 11.2: Continue to favor investment in transit infrastructure and services over investment in highway development and other facilities that accommodate the automobile.

Objective 21: Develop Transit as the Primary Mode of Travel to and from Downtown and All Major Activity Centers within the Region.

Policy 21.1: Provide transit service from residential areas to major employment centers outside the downtown area.

Policy 21.2: Where a high level of transit ridership or potential ridership exists along a corridor, existing transit service or technology should be upgraded to attract and accommodate riders.

Policy 21.3: Make future rail transit extensions in the city compatible with existing BART, CalTrain or Muni rail lines.

Policy 21.4: Provide for improved connectivity and potential facility expansion where any two fixed guide-way transit corridors connect.

Policy 21.6: Establish frequent and convenient transit service, including water-based transit, to major recreational facilities and provide special service for sports, cultural and other heavily attended events.

Objective 27: Ensure that Bicycles Can be Used Safely and Conveniently as a Primary Means of Transportation, as Well as for Recreational Purposes.

Policy 27.1: Expand and improve access for bicycles on city streets and develop a well-marked, comprehensive system of bike routes in San Francisco.

Policy 27.2: Develop a rational classification system of bicycle preferential streets.

ENVIRONMENTAL PROTECTION ELEMENT

Objective 14: Assure that the ambient air of San Francisco and the Bay region is clean, provides maximum visibility, and meets air quality standards.

Policy 2: Encourage the development and use of urban mass transportation systems in accordance with the objectives and policies of the Transportation Element.

Objective 15: Increase the energy efficiency of transportation and encourage land use patterns and methods of transportation which use less energy.

Policy 1: Increase the use of transportation alternatives to the automobile.

CENTRAL WATERFRONT AREA PLAN

Objective 7: Improve the Transportation Accessibility of the Subareas.

Policy 1: Improve citywide and regional transit access to the subareas.

Policy 4: Extend a Light-Rail Vehicle line through the Central Waterfront along the Third Street corridor connecting to the Southern Pacific Depot and the proposed Embarcadero rail line.

CHINATOWN AREA PLAN

Objective 7: Manage Transportation Impacts to Stabilize or Reduce the Difficulties of Walking, Driving, Delivering Goods, Parking or Using Transit in Chinatown.

Policy 2: Make MUNI routes more reflective of and responsive to Chinatown ridership, including bilingual signage, schedules and maps.

DOWNTOWN PLAN

Objective 17: Develop Transit as the Primary Mode of Travel to and from Downtown.

Policy 1: Build and maintain rapid transit lines from downtown to all suburban corridors and major centers of activity in San Francisco.

Policy 3: Establish exclusive transit lanes on bridges, freeways and city streets where significant transit service exists.

Policy 4: Coordinate regional and local transportation systems and provide for interline transit transfers.

Objective 20: Provide for the Efficient, Convenient and Comfortable Movement of People and Goods, Transit Vehicles and Automobiles within the Downtown.

Policy 4: Improve speed of transit travel and service by giving priority to transit vehicles where conflicts with auto traffic occur, and by establishing a transit preferential streets system.

MISSION BAY PLAN

Objective 30: Expand Transit Services to, from, through and within Mission Bay.

Policy 1: Expand public transit routes to permit convenient connections to downtown and other San Francisco destinations.

Policy 4: Establish a separate right-of-way for the MUNI Metro light rail vehicles.

Objective 31: Provide for the Safe and Convenient Use of the Bicycle as a Means of Transportation and Recreation.

Policy 1: Establish bicycle routes where appropriate within the Mission Bay area.

Objective 34: Meet Needs Of Mission Bay Residents, Working Population And Visitors For Safe, Convenient And Inexpensive Travel.

Policy 1: Plan for transit as a primary mode of travel to, within and from Mission Bay.

Policy 4: Coordinate Mission Bay regional and local transportation systems planning.

Objective 37: Minimize Transportation-Related Noise

Policy 1: Encourage the use of electric trolley coaches for new transit within Mission Bay.

NORTHEASTERN WATERFRONT AREA PLAN

Objective 9: To Accommodate the Regional Movement of People and Goods, Permitting the through Movement of Traffic, Access to the Regional System from the Maritime and Other Industrial Areas of the City, and Facilitating the Movement of Regional Transit While Minimizing the Adverse Impact of this System on the Northeastern Waterfront Area.

Policy 2: Prohibit any increase to the capacity of the roadway system along the shoreline to accommodate automobiles between the Bay Bridge-downtown area and the Golden Gate Bridge. Improve transit service in this corridor to encourage the reduction of automobile traffic.

Policy 5: Improve transit service to, and along, the Northeastern Waterfront. Establish a transit line between the South of Market area and the Fisherman's Wharf area which would primarily make use of existing railroad tracks, including those on the Embarcadero, and which would connect to numerous other transit lines, and to a parking reservoir at the southern end.

Policy 6: Make transfers among transit systems as easy, safe and pleasant as possible, and clearly identify loading areas and routes. In particular in the Ferry Building area, design the relationship between the ferries, BART, Muni surface and subsurface lines, and the Transbay Terminal to facilitate connections among the systems.

Objective 25: To Further Develop the Ferry Building Area as a Major Transit Center, Improving Transit Access by and Transfers Among the Transit Lines and Systems, and Reducing the Impact of Traffic Systems on the Area.

Objective 27: To Improve the Embarcadero Corridor in Order to Facilitate the Movement of People and Goods, Enhance Public Access to and Along the Water, and to Eliminate the Blighting Influence of the Elevated Freeway Structure.

RINCON HILL AREA PLAN

Objective 23: To Improve Transit Service to and from Rincon Hill.

While there is no formal policy supporting this objective set forth in the area plan, discussion in the plan states that, with an increased day and evening population in the plan area, all-day local transit service will be needed to serve Rincon Hill. The plan states that, because of the area's proximity to downtown, neither limited, express, nor downtown transit service is expected to be needed.

SOUTH BAYSHORE PLAN

Objective 4: Develop and Maintain a System for the Easy Movement of People and Goods, Taking into Account Anticipated Needs of Both Local and through Traffic.

Policy 4.2: Develop the necessary improvements in public transit to move people efficiently and comfortably between different South Bayshore neighborhoods, to and from Candlestick Park, and to and from Downtown and other parts of the region.

Policy 4.3: Give special consideration to light rail along Third Street as the nucleus for public transit improvements and for stimulating wider public transit usage and social/economic revitalization.

Policy 4.5: Create a comprehensive system for pedestrian and bicycle circulation.

Policy 4.6: Provide convenient regional access to Candlestick Park stadium without negatively impacting nearby residential streets.

Objective 11: Improve Definition of the Overall Urban Pattern of South Bayshore

Policy 11.1: Recognize and enhance the distinctive features of South Bayshore as an interlocking system of diverse neighborhoods.

Policy 11.2: Increase awareness and use of the pedestrian/bicycle trail system that links subareas in South Bayshore with the rest of the City.

Objective 17: Support Community Economic Development and Revitalization through Energy Management and Alternative Energy Technologies.

Policy 17.1: Promote the South Bayshore as an area for implementing energy conservation and energy supply initiatives.

Objective 18: Reduce the Outflow of Dollars from the Community Due to Expenditures on Energy through the Improved Energy Management of Transportation, Housing, Commerce and Industry, and Community Facilities.

Policy 18.1: Encourage land use patterns which will reduce transportation needs and encourage methods of transportation which will use less energy.

SOUTH OF MARKET

Objective 4: Develop Transit as the Primary Mode of Travel to and from Other Parts of the City and Region

Policy 1: Expand local transit lines linking the South of Market to all regional transit facilities and to the rest of the City.

Objective 5 : Minimize the Impact on the Livability of the Area of Auto Traffic through and to/from the South of Market

Policy 1: Provide incentives for the use of transit, taxi, car-pools and vanpools, and reduce the dependence on automobile parking facilities, particularly by area workers.

SAN FRANCISCO BAY PLAN**Transportation**

Policy 2: Because of the continuing vulnerability of the Bay to filling for roads, the Commission should continue to take an active role in Bay Area transportation planning affecting the Bay, particularly to encourage alternative methods of transportation to be used within the Bay Area that do not require fill. The Metropolitan Transportation Commission, the California Department of Transportation, the California Transportation Commission, the Federal Highway Administration and other public and private transportation authorities should avoid planning or funding roads that would require fill in waterways.

Appearance, Design and Scenic Views

Policy 7: Access routes to Bay crossings should be designed so as to orient the traveler to the Bay (as in the main approaches to the Golden Gate Bridge). Similar consideration should be given to the design of highway and mass transit routes paralleling the Bay (by providing frequent views of the Bay if possible, so the traveler knows which way he or she is moving in relation to the Bay). Guardrails, fences, landscaping and other structures related to such routes should be designed and located so as to maintain and to take advantage of Bay views. New or rebuilt roads in the hills above the Bay and in areas along the shores of the Bay should be constructed as scenic parkways in order to take full advantage of the commanding views of the Bay.

DRAFT SAN FRANCISCO BAY AREA SEAPORT PLAN

Provide for integrated and improved surface transportation facilities between San Francisco Bay ports and terminals and other regional transportation systems.

Ground Transportation Policies:

1. Local, state and federal government actions, such as land use decisions, public works projects, or rail abandonments, should not impede access to the marine terminal sites identified in the Seaport Plan. Funding for a transportation project affecting ports or port sites should be approved or endorsed by

MTC only if the project is consistent with the policies of the Seaport Plan, unless there are overriding regional considerations.

2. The Bay Area ports, local governments and marine terminal operators should take steps to make the best possible use of existing ground transportation facilities, and should employ measures to mitigate any significant adverse environmental effects of increased traffic at existing and proposed marine terminal facilities.
3. Local and regional transportation planning and funding priorities should facilitate the efficient movement of goods by rail and truck to and from the Bay Area ports.

METROPOLITAN TRANSPORTATION COMMISSION REGIONAL TRANSPORTATION PLAN

Goals and objectives from the 1994 RTP:

Improve Mobility for Persons and Freight:

- *Improve Metropolitan Transportation System convenience, efficiency, and safety for passengers and freight.*

Promote Equity for System Users:

- *Provide for an equitable decision-making process*
- *Support equitable distribution of costs and benefits of the transportation system among its users.*
- *Provide for mobility needs of the transportation disadvantaged, including the youth, elderly, disabled and economically disadvantaged.*

Enhance Sensitivity to the Environment:

- *Promote a transportation system that supports a healthful environment.*
- *Minimize--by avoidance or mitigation--potential adverse impacts of transportation systems and projects.*

Support Economic Vitality of the Region:

- *Support the local and regional economy by improving the performance of a multimodal Metropolitan Transportation System.*
- *Encourage transit investments that are matched and supported by land use plans that designate development intensities sufficient to support viable transit.*

Support Community Vitality in the Region:

- *Support transportation investments that promote community social and economic objectives.*
- *Mitigate adverse community impacts to the extent possible.*
- *Encourage development concepts that support alternatives to the use of personal autos.*
- *Support transportation investment and improvements that bolster the long-term, sustained economic vitality of the core of the region.*

**APPENDIX C-1
SUMMARY OF SOIL ANALYSES**

LOCATION	CONTAMINANTS OF CONCERN	MAXIMUM CONCENTRATION (mg/kg, unless otherwise specified)	POTENTIAL WASTE DISPOSAL FACILITY	LOCATION ID ¹³	REFERENCE
<i>SEGMENT 1</i>					
Bayshore Blvd. and Sunnysdale Avenue	Chromium Selenium Vanadium	35 5.1 35	II	1	Dames & Moore, 1990
Bayshore Services 2598 Bayshore Blvd.	Fuel	-- ¹	III	2	EDR, 1996
Olympic Service Station 2550 Bayshore Blvd.	TPH Gasoline	-- ¹	III	3	EDR, 1996; BASELINE, 1995
Schlage Locke/Pacific Lithograph 2555 Bayshore Blvd.	PCE TCE	8.0 16 ²	I ² / II	4	Treadwell & Rollo, 1995
<i>SEGMENT 2</i>					
Howell Property 6000 3rd Street	TPH Gasoline	-- ³	III	5	EDR, 1996; LOP, 1997b
Third St. and Carroll Ave	Serpentine soils	--	III ⁴	6	CDM, 1993b
Third St. and Armstrong Ave	Chromium Vanadium	60 ⁵ 45	I ⁵ / II	7	Dames & Moore, 1996b
Unocal 5545 3rd Street	TPH Gasoline TPH Diesel	-- ¹	III	8	EDR, 1996
West Coast Plumbing Co. 2230 Lane Street	TPH Gasoline	-- ¹	III	9	EDR, 1996
<i>SEGMENT 3</i>					
A New Modesto Poultry Company 5144 3rd Street	TPH Gasoline	-- ¹	III	10	EDR, 1996
<i>SEGMENT 4</i>					
Pickerrell Project 1605 Jerrold Avenue	TPH Gasoline	-- ¹	III	11	EDR, 1996
Scheid Industrial Supply Company 4049 3rd Street	TPH Gasoline	-- ¹	III	12	EDR, 1996
Fireproofing Corporation 3830 3rd Street	TPH Gasoline	-- ¹	III	13	EDR, 1996
Unocal Station #0426 3800 3rd Street	Soluble lead (WET)	0.77 mg/L	II	14	EDR, 1996
Third St. and Evans Ave	TPH	<100 ⁶	III	15	Geo/Resources, 1989
Third St. and Davidson Ave	Lead Soluble Lead (WET) Copper Soluble Copper (WET)	3,300 110 600 37	I	16	Geo/Resources, 1990
Third Street and Phelps	Soluble Lead (WET)	5.1 mg/L	I	17	BASELINE, 1994a

**APPENDIX C-1
SUMMARY OF SOIL ANALYSES (Continued)**

LOCATION	CONTAMINANTS OF CONCERN	MAXIMUM CONCENTRATION (mg/kg, unless otherwise specified)	POTENTIAL WASTE DISPOSAL FACILITY	LOCATION ID ¹³	REFERENCE
Cargo Way (possible Metro East site)	Chromium Cobalt Lead Mercury Nickel Vanadium	180 ⁵ 55 140 ⁵ 0.60 1,100 ⁵ 34	I ² / II	18	Bechtel, 1994
Third and Marin Sts.	Benzene Xylenes TPH Diesel	0.3 11 180	II	19	Robert B. Kitchen, 1995
Third and Cesar Chavez Sts.	Chromium Nickel Vanadium	65 ⁵ 270 ⁵ 16	I ² / II	20	BASELINE, 1994b
Third and 26 th Sts.	Chromium Lead Nickel TPH Diesel	60.2 ⁵ 568 ⁵ 220 ⁵ 14,500	I ² / II	21	Tetra Tech, 1996
Western Pacific (possible Metro East site)	Antimony Arsenic Barium Cadmium Chromium Cobalt Copper Lead Mercury Nickel Silver Vanadium Zinc PNAs	4 169 591 1.10 205 35.4 81.70 1,510 0.60 793 9.80 423 646 884.2	I	22	Dames & Moore, 1989
Illinois St., between 20 th and 24 th Sts.	Chromium	620	I	23	ERM West, 1992
Illinois St., between 20 th and 24 th Sts.	Chromium Asbestos ⁷	1,300 5 percent	I	24	ERM West, 1992
Gaehwiler Construction Co. 2199 3rd Street	TPH Diesel Waste Oil	-- ³	III	25	EDR, 1996
Warneke Auto Repair/Runnymede 601 18th Street	TPH Diesel Waste Oil	-- ¹	III	26	EDR, 1996
Menein Property 2001 3rd Street	TPH Gasoline TPH Diesel	-- ¹	III	27	EDR, 1996
Wilson Property 1900 3rd Street	TPH	-- ¹	III	28	EDR, 1996
Carraro Property 1800 3rd Street	TPH Gasoline	-- ¹	III	29	EDR, 1996
SEGMENT 5					
Kaiser Sand and Gravel 300 16th Street	TPH Diesel	-- ¹	III	30	EDR, 1996
Ares Commercial Properties 1501 3rd Street	TPH	-- ¹	III	31	EDR, 1996
Santa Fe Pacific Realty Co. 205 Channel Street	TPH Gasoline	370	II	32	EDR, 1996

APPENDIX C-1
SUMMARY OF SOIL ANALYSES (Continued)

LOCATION	CONTAMINANTS OF CONCERN	MAXIMUM CONCENTRATION (mg/kg, unless otherwise specified)	POTENTIAL WASTE DISPOSAL FACILITY	LOCATION ID ¹³	REFERENCE
Golden Brands Beverage Dist. 255 Channel Street	TPH Diesel	-- ¹	III	33	EDR, 1996
China Basin Building 185 Berry Street	TPH Diesel Waste Oil	-- ¹	III	34	EDR, 1996
Third and King Sts.	Chromium Lead Mercury Vanadium PNAs	34.6 101 ⁵ 2.8 ⁵ 35.9 35.12 ^{8,9}	I ⁵ / II	35	Dames & Moore, 1990
<i>SEGMENT 5B</i>					
WESCAR/Pearson Equipment 700 16th Street	TPH Gasoline TPH Diesel	190 660	II	36	EDR, 1996; LOP, 1997c
Seventh and Hooper Sts. and Seventh and Berry Sts.	Benzene Lead	3.03 -- ¹⁰	II	37	ERM-West, 1986
<i>SEGMENT 7</i>					
Southern Pacific 329 Townsend Street	Fuel	-- ³	III	38	EDR, 1996
Serramonte Ford 530 Brannan Street	Mineral Spirits, TPH Gasoline	6,900 ¹¹	II	39	EDR, 1996
Shell Gas Station 598 Bryant Street	TPH Gasoline	3,000 ¹¹	II	40	EDR, 1996
Auto Repair and Auto Park 529 Third Street	TPH Diesel, Oil & Grease	-- ¹	III	41	EDR, 1996
Taylor Property 150 South Park Street	TPH Gasoline	-- ¹	III	42	EDR, 1996
Revco Corporation 510 Bryant Street	TPH Diesel	-- ³	III	43	EDR, 1996
Le Baron 760 Harrison Street	Fuel	-- ¹	III	44	EDR, 1996
Chevron Gas Station 395 Third Street	Fuel	-- ¹	III	45	EDR, 1996
Moscone Expansion 750/747 Howard Street	TPH Diesel Oil & Grease	1,900 10,000	II	46	LOPg
Museum of Modern Art 151 Third Street	TPH Gasoline Waste Oil	-- ¹²	I	47	EDR, 1996
O'Farrell Street Garage 123 O'Farrell Street	TPH Gasoline	-- ³	III	48	EDR, 1996
PON Property 535 Stockton Street	Fuel	-- ¹	III	49	EDR, 1996

Notes:

TPH Total Petroleum Hydrocarbon
WET Waste Extraction Test Method
PNAs Polynuclear Aromatic Hydrocarbons
PCE Tetrachloroethylene
TCE Trichloroethylene

**APPENDIX C-1
SUMMARY OF SOIL ANALYSES (Continued)**

- Segment 1 = CalTrain Bayshore Station to just south of the Highway 101 overcrossing (Visitacion Valley)
 Segment 2 = Highway 101 overcrossing to Van Dyke Avenue (Bayview)
 Segment 3 = Van Dyke to Jerrold Avenue (Bayview commercial core)
 Segment 4 = Jerrold Avenue to 16th Street (Central Waterfront)
 Segment 5 = 16th Street through Mission Bay along Third/Fourth to King Street
 Segment 5B = 16th Street along the western edge of Mission Bay to King and Third streets
 Segment 7 = Third/Fourth to Market via Geary/Stockton to Clay or Washington

The table above includes only those contaminants germane to waste disposal classification; other laboratory analyses performed for the samples are not included in this table.

The data above is based on analytical summary tables provided from the identified references. Data within one-half block of the proposed project were evaluated.

Metals data reflect total concentrations unless specified otherwise.

¹ Information based on regulatory database search conducted by Environmental Data Resources, Inc. (11/05/96). Database search indicated that remedial action completed or deemed unnecessary.

² Concentration greater than 20 times the corresponding Toxicity Characteristic Leaching Procedure (TCLP) threshold; sample not subjected to TCLP analysis. Waste stream could potentially constitute a hazardous waste if soluble (TCLP) concentration is greater than TCLP threshold.

³ Information based on regulatory database search conducted by Environmental Data Resources, Inc. (11/05/96); analytical data not reviewed. Database search indicated that soil contamination has occurred at such low levels as to not pose a threat to water quality. One of the following sets of conditions were required: 1) initial soil contamination less than 100 ppm below the tank; 2) low permeable soil (silts & clay); 3) no shallow groundwater (>50 ft) or 4) monitoring wells have been installed in appropriate locations and water analyses show non-detect.

⁴ Subsurface soil contained serpentine fragments; however soil was not analyzed for asbestos. Serpentine containing soil samples collected outside the project area were analyzed for asbestos. Samples did not contain reportable concentrations of asbestos.

⁵ Corresponding metal concentration greater than 10 times the corresponding Soluble Threshold Limit Concentration (STLC); sample not analyzed for soluble (WET) metal. Waste stream could potentially constitute a hazardous waste if soluble (WET) concentration is greater than STLC.

⁶ Data not available for review. According to the Islais Creek Pump Station Project, Site History Review Report (Geo/Resource Consulting, 12/18/89), the 1/14/86 letter from Applied GeoSystems to San Francisco Department of Public Health indicated that hot spot soils affected from the leaking underground storage tank were remediated to levels below 100 ppm total hydrocarbons.

⁷ Sample collected from soil boring B-8.

⁸ Reflects sum of reported PNAs.

⁹ The sum of reported PNAs exceeded 10 mg/kg. Soils containing total PNAs greater than 10 mg/kg must be analyzed for aquatic toxicity using an aquatic bioassay system to determine whether the soils could constitute a hazardous waste. However, the samples were not analyzed for aquatic toxicity based on our review of the referenced report.

¹⁰ Report indicated that elevated levels of lead were reported. However, the report did not include these analytical results.

¹¹ This value represents the maximum soil concentration reported by the regulatory database; however, the database did not identify the corresponding contaminant for this concentration.

¹² Soil concentration not reported in regulatory database.

¹³ (See Figure 4.12 for site locations.) Location Ids refer to locations identified in Technical Report No. 96.218E, Hazardous Materials Technical Report by BASELINE Environmental Consulting, June, 1997; available for review at Planning Department, 1600 Mission Street.

APPENDIX C-2
SUMMARY OF EXISTING GROUNDWATER QUALITY DATA
(mg/L, except for pH values)

	SEGMENT 1		SEGMENT 2	SEGMENT 4					SEGMENT 5	SEGMENT 5B	SEGMENT 7	CCSF BWWWD Limits	
	Schlage Locke/Pacific Lithograph 2555 Bayshore Blvd.	Bayshore Blvd. & Sunnydale Ave Bayshore Blvd.	Olympic Service Station 2550 Bayshore Blvd.	Third St. & Armstrong Ave	Unocal Station #0426 3800 Third St.	Third St. & Davidson Ave	Third & Marin Sts	Cargo Way (Metro East Maintenance Site Facility)	Western Pacific (Metro East) Maintenance Site Facility	Third & King Sts	WESCAR/Pearson Equipment 700 16 th St.	Auto Repair & Auto Park 529 Third Street	
Arsenic	NA	<0.010	NA	ND	NA	0.025	NA	0.009	0.08/0.007	1.0	NA	NA	4.0
Barium	NA	<2.0	NA	0.09	NA	0.801	NA	0.58	NA	14.2	NA	NA	100 ^{3,4}
Beryllium	NA	<0.2	NA	ND	NA	ND	NA	<0.005	NA	0.029	NA	NA	0.75 ^{3,4}
Cadmium	NA	<0.5	NA	0.01	NA	ND	NA	<0.01	NA	0.0941	NA	NA	0.5
Cobalt	NA	<0.5	NA	ND	NA	0.10	NA	<0.02	NA	0.554	NA	NA	80 ^{3,4}
Copper	NA	<0.2	NA	ND	NA	0.09	NA	<0.02	NA	0.675	NA	NA	25 ^{3,4}
Chromium	NA	0.13 ²	NA	ND	NA	0.42 ¹	NA	<0.02	NA	0.915	NA	NA	4.0
Lead	NA	<1.0	NA	ND	NA	0.09 ¹	NA	<0.1	0.005/0.420	0.948	NA	NA	1.5
Mercury	NA	<0.002	NA	ND	NA	0.0015	NA	<0.002	NA	0.006	NA	NA	0.005
Molybdenum	NA	<2.0	NA	0.02	NA	ND	NA	<0.02	NA	ND	NA	NA	350
Nickel	NA	<0.5	NA	3	NA	0.36 ¹	NA	<0.02	NA	1.15	NA	NA	2.0
Selenium	NA	<0.010	NA	ND	NA	ND	NA	<0.01	NA	0.067	NA	NA	1.0 ³
Silver	NA	<0.5	NA	ND	NA	ND	NA	<0.01	NA	0.041	NA	NA	0.6

APPENDIX C-2
SUMMARY OF EXISTING GROUNDWATER QUALITY DATA (CONTINUED)

	SEGMENT 1			SEGMENT 2			SEGMENT 4						SEGMENT 5	SEGMENT 5B	SEGMENT 7	CCSF BWWD Limits
	Schlage Locke/Pacific Lithograph 2555 Bayshore Blvd.	Bayshore Blvd. & Sunnydale Ave	Olympic Service Station 2550 Bayshore Blvd.	Third St. & Armstrong Ave	Unocal Station #0426 3800 Third St.	Third St. & Davidson Ave	Third & Marin Sts	Cargo Way (Metro East Maintenance Site Facility)	Western Pacific (Metro East) Maintenance Site Facility	Third & King Sts	WESCAR/Pearson Equipment 700 16 th St.	Auto Repair & Auto Park 529 Third Street				
Thallium	NA	<2.0	NA	ND	NA	ND	NA	<0.2	NA	ND	NA	NA	NA	NA	7.0 ^{3,4}	
Vanadium	NA	<5.0	NA	0.1	NA	0.31 ¹	NA	<0.02	NA	1.25	NA	NA	NA	NA	24 ^{3,4}	
Zinc	NA	0.1	NA	130	NA	0.35 ¹	NA	<0.02	NA	2.27	NA	NA	NA	NA	250	
Benzene	0.002	--	0.57	NA	6.9	ND	0.1	<1	NA	0.0328	2.9	ND	NA	NA	0.5 ³	
Trichloroethylene	4.4	230	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	0.5 ³	
Tetrachloroethylene	4.9	36	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	0.7 ³	
Oil & grease	NA	NA	NA	NA	NA	NA	170	NA	NA	NA	NA	NA	NA	NA	100 ⁴ /300 ⁵	
Heptachlor epoxide	NA	NA	NA	NA	NA	NA	NA	<0.001	NA	NA	NA	NA	NA	NA	0.008	
pH	NA	NA	NA	NA	NA	7.0	NA	NA	NA	7.4	NA	NA	NA	NA	6.0-9.5	

Notes:
 CCSF BWWD City and County of San Francisco Batch Wastewater Discharge.
 x.x Concentration exceeds the corresponding CCSF BWWD limit.
 ND Not detected at or above detection limits.
 NA Not analyzed.
 <x.x Not reported above laboratory reporting limit of x.x.
 xx/yy Total/dissolved; otherwise not specifically indicated.

APPENDIX C-2
SUMMARY OF EXISTING GROUNDWATER QUALITY DATA (CONTINUED)

This table does not include contaminants for which there are no CCSF BWWWD thresholds. CCSF BWWWD thresholds are based on the General Analytical Requirements for Batch Wastewater Discharges. The data shown identify only the maximum reported concentration for each referenced location. Only data from samples collected at depths equal to, or shallower than, the maximum construction depth and at distances up to one-half block from the corridor are included.

Segment 1 = CalTrain Bayshore Station to just south of the Highway 101 overcrossing (Visitacion Valley)
 Segment 2 = Highway 101 overcrossing to Van Dyke Avenue (Bayview)
 Segment 3 = Van Dyke to Jerrold Avenue (Bayview commercial core)
 Segment 4 = Jerrold Avenue to 16th street (Central Waterfront)
 Segment 5 = 16th Street through Mission Bay along Third/Fourth to King Street
 Segment 5B = 16th Street along the western edge of Mission Bay to King and Third Streets
 Segment 7 = Third/Fourth to Market via Geary/Stockton to Clay or Washington

¹ Reported as chromium VI.

² The CCSF General Analytical Requirements for Batch Wastewater Discharges - all sources do not provide a threshold level for this constituent. Identified threshold based from CCSF Additional Analytical Requirements for Batch Wastewater Discharges - Sources Suspected of Petroleum or Hazardous Waste Contamination (Table 1B); compliance to threshold levels in Table 1B is required when wastewaters are suspected of petroleum contamination (due to location and site history) or wastewaters are suspected of contamination from hazardous waste sites.

³ Threshold identified as Soluble Threshold Limit Concentration (STLC).

⁴ Hydrocarbon Oil and Grease discharge requirement (Method 5520F).

⁵ Total Recoverable Oil and Grease discharge requirement (Method 5520B).

APPENDIX D
LIGHT RAIL ALTERNATIVE BUS SERVICE PLAN A AND BUS SERVICE PLAN B ROUTE MAPS

MUNI bus/route restructuring that would accompany initiation of light rail service is illustrated in Appendix D.

Two bus service plans are being proposed for the Initial Operating Segment and the New Central Subway. Bus Service Plans A and B for the IOS are presented in Figures D-1 through D-4. For the New Central Subway, Bus Service Plans A and B are indicated in Figures D-5 through D-7.

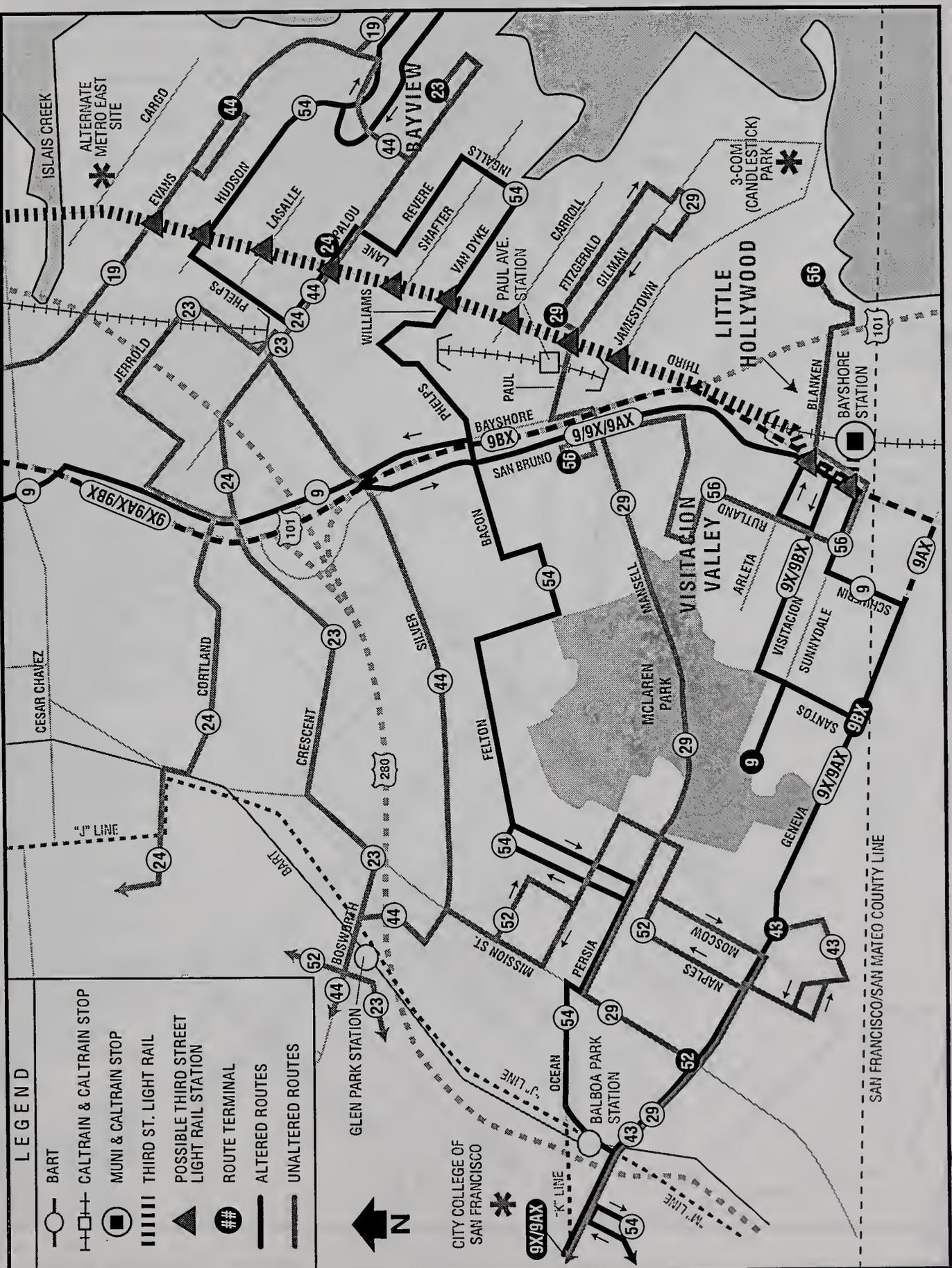
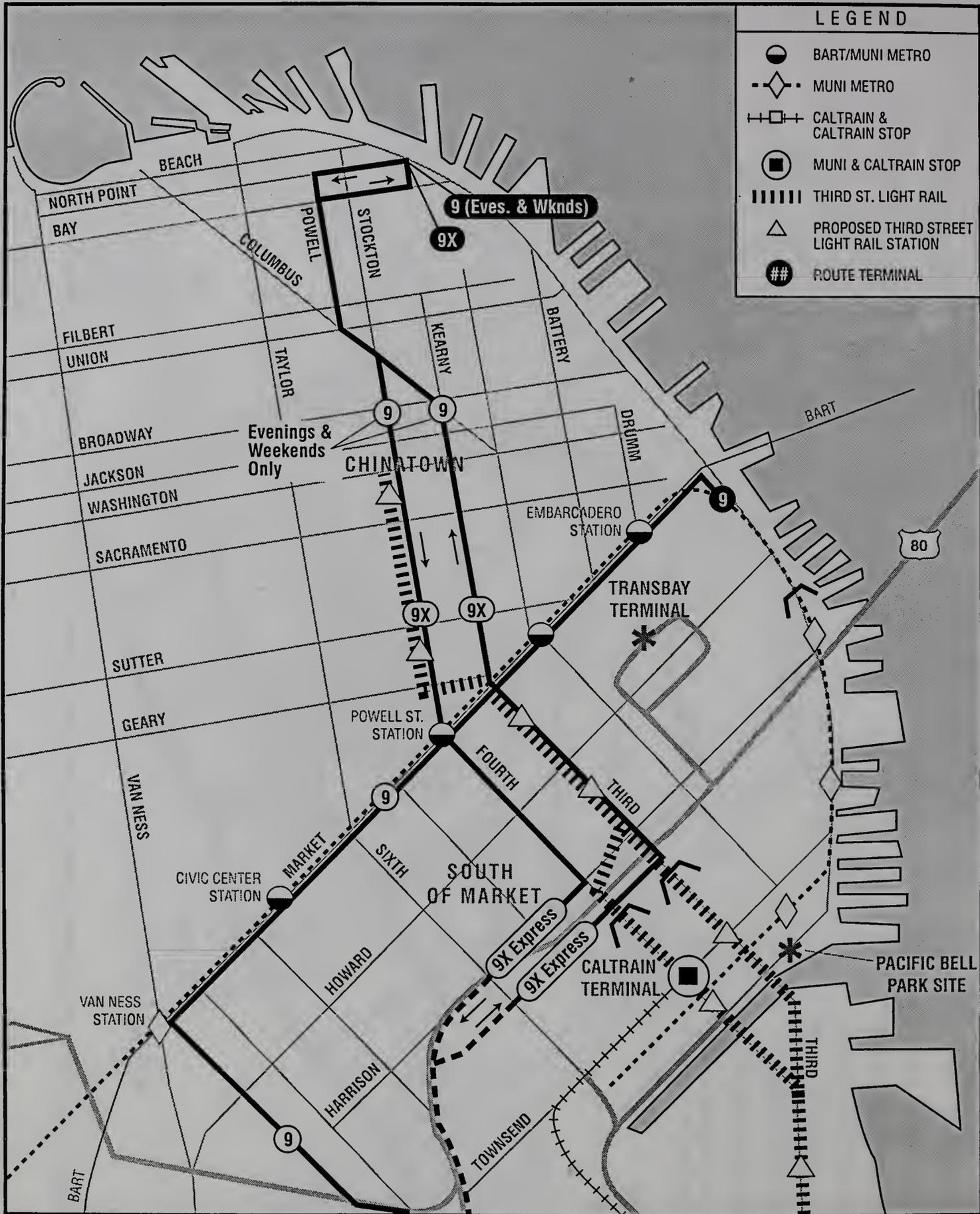


FIGURE D-4

IOS BUS SERVICE PLAN B (SOUTH)
Third Street Light Rail EIS/EIR



J96-082.36e (1/7/98)

FIGURE D-5

**NEW CENTRAL SUBWAY
BUS SERVICE PLAN A & B (NORTH)**

APPENDIX E
TRANSPORTATION ANALYSIS TECHNICAL INFORMATION

Tables E-1 through E-26 provide existing and 2015 Level of Service information, transit ridership, and parking conditions in the Third Street Corridor. Figures E-1 through E-5 indicate proposed construction-related detours and truck restrictions in the Corridor.

TABLE E-1
ESTIMATED WEEKDAY TRANSIT RIDERSHIP
EXISTING AND YEAR 2015 CONDITIONS

LRT/BUS LINE	EXISTING	2015 NO BUILD/TSM	2015 LRT IOS	2015 LRT SUBWAY
LRT Lines in Corridor:				
MUNI Metro Extension LRT (1)	n/a	11,240	9,050	2,020
Third Street LRT (2)	n/a	n/a	71,010	92,110
Subtotal	n/a	11,240	80,060	94,130
Bus Lines in Corridor:				
Line 15	25,050	75,530	n/a	n/a
Lines 9X, 9AX, 9BX	14,330	17,100	21,780	18,200
Lines 30, 45	26,640	31,770	31,770	25,880
Shifts from Line 15 (3)	n/a	n/a	4,480	4,480
Subtotal	66,020	124,400	58,030	48,560
TOTAL IN CORRIDOR:	66,020	135,640	138,090	142,690
Increase Over Existing:	n/a	69,620	72,070	76,670
Increase Over No Build/TSM:	n/a	n/a	2,450	7,050
Notes: (1) MUNI Metro Extension will operate with the L-Taraval to the Caltrain Terminal and the N-Judah light rail to Third and Mariposa. (2) Third Street light rail will interconnect with the J-Church. (3) Line 15-Third shifts to 43-Masonic, 9-San Bruno and/or 54-Felton routes.				
Source: <i>Travel Demand Forecasting Results Working Paper #4</i> , San Francisco Municipal Railway, December 1997.				

TABLE E-2
ESTIMATED WEEKDAY P.M. PEAK HOUR TRANSIT RIDERSHIP
EXISTING AND YEAR 2015 CONDITIONS

LRT/BUS LINE	EXISTING	2015 NO BUILD/TSM	2015 LRT IOS	2015 LRT SUBWAY
LRT Lines in Corridor:				
MUNI Metro Extension LRT (1)	n/a	1,349	1,086	242
Third Street LRT (2)	n/a	n/a	8,521	11,053
Subtotal	n/a	1,349	9,607	11,296
Bus Lines in Corridor:				
Line 15	3,006	9,064	n/a	n/a
Lines 9X, 9AX, 9BX	1,720	2,052	2,614	2,184
Lines 30, 45	3,197	3,812	3,812	3,106
Shifts from Line 15 (3)	n/a	n/a	538	538
Subtotal	7,922	14,928	6,964	5,827
TOTAL IN CORRIDOR:	7,922	16,277	16,571	17,123
Increase Over Existing:	n/a	8,522	8,816	9,368
Increase Over No Build/TSM:	n/a	n/a	294	846
Notes: (1) MUNI Metro Extension will operate with the L-Taraval to the Caltrain Terminal and the N-Judah light rail to Third and Mariposa. (2) Third Street light rail will interconnect with the J-Church. (3) Line 15-Third shifts to 43-Masonic, 9-San Bruno, and/or 54-Felton routes.				
Source: <i>Travel Demand Forecasting Results Working Paper #4</i> , San Francisco Municipal Railway, December 1997.				

TABLE E-3
MISSION BAY TRIP GENERATION

TRANSIT TRIPS	MISSION BAY EIR ASSUMPTIONS	THIRD STREET EIS/EIR ASSUMPTIONS FOR MISSION BAY DEVELOPMENT
Total Daily Transit Trips	67,436	61,922
Total Peak Hour Transit Trips	6,977	6,193
Peak Hour Third Street Light Rail/MUNI Metro Extension Trips	4,600	4,685
Peak Hour Third Street Light Rail/MUNI Metro Extension Trips between Mission Bay and Market Street		
Inbound to Downtown	1,600	1,353
Outbound from Downtown	<u>2,600</u>	<u>2,208</u>
Total	4,200	3,561
Notes: (1) Third Street Light Rail does not assume buildout of Mission Bay by 2015 while the Mission Bay EIR does.		

TABLE E-4

**ESTIMATED DAILY TRANSIT RIDERSHIP
SUMMARY OF ORIGIN-DESTINATION PATTERNS FOR 15-THIRD/LRT
EXISTING AND FUTURE YEAR 2015 CONDITIONS**

ORIGIN	DESTINATION	EXISTING 15-THIRD	NO BUILD/ TSM 15- THIRD	INITIAL OPERATING SEGMENT	NEW CENTRAL SUBWAY
Visitation Valley - Crocker Amazon	Chinatown - North Beach	598	638	371	964
	Financial District - Union Square - South of Market	1,012	1,933	2,556	2,487
	Mission Bay - Potrero Hill	500	2,217	2,275	2,436
	Bayview Hunters Point	728	1,064	1,068	1,068
	Visitacion Valley - Crocker Amazon	2,236	2,364	260	260
	All other destinations (1)	1,118	1,202	459	497
Subtotal		6,192	9,418	6,989	7,712
Bayview Hunters Point	Chinatown - North Beach	536	885	792	848
	Financial District - Union Square - South of Market	720	2,230	2,908	2,993
	Mission Bay - Potrero Hill	142	1,899	1,938	2,098
	Bayview Hunters Point	995	2,388	2,435	2,435
	Visitacion Valley - Crocker Amazon	583	785	773	773
	All other destinations (1)	850	2,308	2,399	2,415
Subtotal		3,826	10,495	11,245	11,562
Mission Bay - Potrero Hill	Chinatown - North Beach	51	500	870	1,300
	Financial District - Union Square - South of Market	765	2,868	4,323	5,025
	Mission Bay - Potrero Hill	3	341	349	384
	Bayview Hunters Point	145	1,954	2,008	2,168
	Visitacion Valley - Crocker Amazon	246	1,880	1,927	2,087
	All other destinations (1)	531	10,556	9,071	9,953
Subtotal		1,741	18,099	18,548	20,917
Financial District - Union Square - South of Market	Chinatown - North Beach	1,862	2,123	483	3,897
	Financial District - Union Square - South of Market	403	781	3,419	6,531
	Mission Bay - Potrero Hill	289	2,203	3,728	4,344
	Bayview Hunters Point	1,126	2,725	3,492	3,625
	Visitacion Valley - Crocker Amazon	652	1,418	1,457	1,530
	All other destinations (1)	500	3,812	3,304	6,032
Subtotal		4,832	13,062	15,883	25,959
Chinatown - North Beach	Chinatown - North Beach	1,116	1,138	0	0
	Financial District - Union Square - South of Market	1,451	1,682	860	2,661
	Mission Bay - Potrero Hill	258	771	1,157	1,735
	Bayview Hunters Point	449	767	817	1,420
	Visitacion Valley - Crocker Amazon	560	580	447	493
	All other destinations (1)	721	749	96	310
Subtotal		4,555	5,687	3,377	6,619
All other origins (1)	All other destinations (1)	3,904	18,769	14,968	19,341
TOTAL		25,050	75,530	71,010	92,110

Notes: (1) All other origins and destinations include: Superdistrict 2, Superdistrict 4, Mission District-Upper Market area, East Bay, North Bay, and South Bay.

Source: *Travel Demand Forecasting Results, Working Paper #4*, San Francisco Municipal Railway, December 1997.

TABLE E-5
ESTIMATED DAILY TRANSIT RIDERSHIP
SUMMARY OF ORIGIN-DESTINATION PATTERNS FOR 9X/AX/BX-SAN BRUNO
EXPRESSES
EXISTING AND FUTURE YEAR 2015 CONDITIONS

ORIGIN	DESTINATION	NO BUILD/ INITIAL			
		EXISTING 9XS	TSM 9XS	OPERATING SEGMENT	CENTRAL SUBWAY
Visitation	Chinatown - North Beach	1,217	1,288	1,529	949
Valley -	Financial District - Union Square - South of Market	1,761	2,126	1,442	1,553
Crocker	Mission Bay - Potrero Hill	120	198	131	131
Amazon	Bayview Hunters Point	31	33	33	33
	Visitacion Valley - Crocker Amazon	1,086	1,404	1,497	1,497
	All other destinations (1)	624	688	629	601
Subtotal		4,839	5,737	5,261	4,764
Bayview	Chinatown - North Beach	41	47	208	161
Hunters	Financial District - Union Square - South of Market	473	594	13	13
Point	Mission Bay - Potrero Hill	0	0	0	0
	Bayview Hunters Point	0	0	0	0
	Visitacion Valley - Crocker Amazon	17	20	20	20
	All other destinations (1)	23	26	26	26
Subtotal		554	687	267	220
Mission Bay -	Chinatown - North Beach	0	0	0	0
Potrero Hill	Financial District - Union Square - South of Market	0	0	0	0
	Mission Bay - Potrero Hill	0	0	0	0
	Bayview Hunters Point	0	0	0	0
	Visitacion Valley - Crocker Amazon	8	9	0	0
	All other destinations (1)	0	0	0	0
Subtotal		8	9	0	0
Financial	Chinatown - North Beach	464	521	2,738	1,512
District -	Financial District - Union Square - South of Market	676	878	965	886
Union Square -	Mission Bay - Potrero Hill	87	158	75	75
South of	Bayview Hunters Point	908	1,644	991	991
Market	Visitacion Valley - Crocker Amazon	1,388	1,639	1,193	1,193
	All other destinations (1)	176	208	288	264
Subtotal		3,699	5,048	6,250	4,921
Chinatown -	Chinatown - North Beach	258	258	1,417	1,417
North	Financial District - Union Square - South of Market	1,203	1,257	2,504	2,045
Beach	Mission Bay - Potrero Hill	39	67	107	42
	Bayview Hunters Point	307	580	580	0
	Visitacion Valley - Crocker Amazon	773	781	831	810
	All other destinations (1)	949	1,006	1,671	1,601
Subtotal		3,529	3,949	7,110	5,915
All other origins (1)	All other destinations (1)	1,701	1,670	2,892	2,380
TOTAL		14,330	17,100	21,780	18,200
Notes:	(1) All other origins and destinations include: Superdistrict 2, Superdistrict 4, Mission District-Upper Market area, East Bay, North Bay, and South Bay.				
Source:	<i>Travel Demand Forecasting Results, Working Paper #4, San Francisco Municipal Railway, December 1997.</i>				

TABLE E-6

**LEVEL OF SERVICE DESCRIPTIONS
FOR SIGNALIZED INTERSECTIONS**

LEVEL OF SERVICE	VEHICLE DELAY (seconds)	DESCRIPTION
A	≤ 5.0	Free flow and insignificant delays. No approach phase is fully used by traffic and no vehicle waits longer than one red signal indication.
B	5.1 - 15.0	Stable operation and minimal delays. An occasional approach phase is fully used. Many drivers begin to feel somewhat restricted.
C	15.1 - 25.0	Stable operation and acceptable delays. Major approach phases are fully used. Most drivers feel somewhat restricted.
D	25.1 - 40.0	Approaching unstable and tolerable delays. Drivers may have to wait through more than one red signal indication. Vehicle queues may develop, but dissipate rapidly, without excessive delays.
E	40.1 - 60.0	Unstable operation and significant delays. Vehicles may wait through several signal cycles. Long queues sometimes form upstream from intersection.
F	> 60	Forced flow and excessive delays. Represents jammed conditions. Intersection operates below capacity with low volumes. Vehicle queues may block upstream intersections.

Source: Highway Capacity Manual, Special Report 209, Transportation Research Board, 1994.

TABLE E-7

**LEVEL OF SERVICE DESCRIPTIONS
FOR ARTERIAL ROADWAYS**

LEVEL OF SERVICE	AVERAGE OPERATING SPEED (mph)	DESCRIPTION
A	≥ 25	Primarily free-flow operations at average travel speeds. Vehicles are unimpeded in their ability to maneuver within the traffic stream. Stopped delay at signalized intersections is minimal.
B	≥ 19	Reasonably unimpeded operations at average travel speeds. The ability to maneuver within the traffic stream is only slightly restricted and stopped delays are not bothersome.
C	≥ 13	Stable operations; but ability to maneuver and change lanes midblock may be more restricted. Longer queues and/or adverse signal coordination may contribute to lower travel speeds.
D	≥ 9	Range in which small increases in flow cause substantial increases in delay due to adverse signal progression, inappropriate signal timing, and/or high volumes.
E	≥ 7	Combination of adverse progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing.
F	< 7	Extremely low speeds. Intersection congestion is likely at critical signalized locations, with high delays and extensive queuing. Adverse progression is frequently a contributor to this condition.

Source: Highway Capacity Manual, Special Report 209, Transportation Research Board, 1994.

TABLE E-8

**INTERSECTION PERFORMANCE IN SEGMENT 1 AND 2
(Caltrain Bayshore Station to Thomas Avenue)**

INTERSECTION	A.M. PEAK HOUR			P.M. PEAK HOUR		
	EXISTING	2015 NO PROJECT & NO BUILD/TSM	2015 IOS	EXISTING	2015 NO PROJECT & NO BUILD/TSM	2015 IOS
<i>Segment 1:</i>						
Bayshore / Sunnydale	B	B	D	B	B	D
Bayshore / Visitacion	A	A	B	A	A	B
Bayshore / Leland	A	A	C	A	A	D
Bayshore / Arleta-Blanken	B	D	F	C	E	E
Bayshore / Hester	B	B	B	B	D	D
<i>Segment 2:</i>						
Third / Jamestown	A	B	B	A	B	B
Third / Ingerson	A	A	A	A	A	A
Third / Gilman-Paul	B	B	C	B	B	B
Third / Carroll	A	B	B	B	B	B
Third / Yosemite	A	A	B	B	B	B
Third / VanDyke	B	B	B	B	B	C

Source: City and County of San Francisco, Department of Parking and Traffic, October 1997.

TABLE E-9

**INTERSECTION PERFORMANCE IN SEGMENT 3
(Thomas Avenue to Kirkwood Avenue)**

INTERSECTION	PEAK HOUR LEVEL OF SERVICE					
	EXISTING	2015 NO PROJECT & NO BUILD/TSM	2015 IOS BAYVIEW OPTION 1 (2 LANES)	2015 IOS BAYVIEW OPTION 2 (1 LANE)	2015 IOS BAYVIEW OPTION 3 (1 LANE HY.)	2015 IOS BAYVIEW OPTION 4 (MIXED)
<i>A.M. Peak Hour:</i>						
Third / Revere	A	A	A	F	F	B
Third / Quesada	A	A	B	F	F	D
Third / Palou	A	A	B	F	F	C
Third / Oakdale	A	A	B	F	F	B
Third / McKinnon	B	B	B	F	F	C
<i>P.M. Peak Hour:</i>						
Third / Revere	B	B	B	F	F	B
Third / Quesada	A	B	C	F	F	C
Third / Palou	B	B	B	F	F	C
Third / Oakdale	B	B	B	F	F	B
Third / McKinnon	A	B	B	E	F	B

Source: City and County of San Francisco, Department of Parking and Traffic, October 1997.

TABLE E-10

**INTERSECTION PERFORMANCE IN SEGMENT 4
(Kirkwood Avenue to 16th Street)**

INTERSECTION	A.M. PEAK HOUR			P.M. PEAK HOUR		
	EXISTING	2015 NO PROJECT & NO BUILD/TSM	2015 IOS	EXISTING	2015 NO PROJECT & NO BUILD/TSM	2015 IOS
Third / Jerrold	B	B	B	B	B	C
Third / Innes	A	B	B	B	B	A
Third / Fairfax	A	A	A	B	B	A
Third / Evans	D	D	E	D	D	E
Third / Arthur-Cargo Way	B	B	B	B	B	B
Third / Cesar Chavez	C	D	D	C	E	F
Third / 25th	A	B	B	B	A	B
Third / 23rd	B	B	C	B	B	B
Third / 22nd	B	B	C	B	B	B
Third / 20th	A	A	C	B	B	C
Third / 18th	B	B	B	B	B	B
Third / Mariposa	D	C	D	B	C	C

Source: City and County of San Francisco, Department of Parking and Traffic, October 1997.

TABLE E-11

**INTERSECTION PERFORMANCE IN SEGMENT 5
(16th Street to King Street)**

INTERSECTION	PEAK HOUR LEVEL OF SERVICE			
	EXISTING	2015 NO PROJECT & NO BUILD/TSM	2015 IOS MISSION BAY OPTION 1 (4th ST.)	2015 IOS MISSION BAY OPTION 2 (3rd/4th ST.)
<i>A.M. Peak Hour:</i>				
Third / 16th	B	C	C	C
Third / Owens	B	B	B	B
Third / Berry	B	B	B	C
Third / King	D	D	D	D
Fourth / Berry	B	B	B	B
Fourth / King	B	F	F	F
<i>P.M. Peak Hour:</i>				
Third / 16th	C	D	D	D
Third / Owens	B	B	B	B
Third / Berry	B	B	B	F
Third / King	C	F	F	F
Fourth / Berry	B	B	B	C
Fourth / King	C	E	E	E

Source: City and County of San Francisco, Department of Parking and Traffic, October 1997.

TABLE E-12

**INTERSECTION PERFORMANCE IN SEGMENT 7
(King Street to Subway Portals)**

INTERSECTION	A.M. PEAK HOUR			P.M. PEAK HOUR		
	EXISTING	2015 NO PROJECT & NO BUILD/TSM	2015 NEW CENTRAL SUBWAY	EXISTING	2015 NO PROJECT & NO BUILD/TSM	2015 NEW CENTRAL SUBWAY
Third / Townsend	E	E	E	B	F	F
Third / Brannan	B	C	C	C	F	F
Third / Bryant	C	D	F	B	B	C
Fourth / Townsend	B	B	C	B	B	B
Fourth / Brannan	B	B	B	F	F	F
Fourth / Bryant	D	F	F	B	C	C

Source: City and County of San Francisco, Department of Parking and Traffic, October 1997.

TABLE E-13

**EXISTING PARKING CONDITIONS IN SEGMENT 1
(Caltrain Bayshore Station to the Highway 101 Overcrossing)**

BLOCK	APPROXIMATE NUMBER OF ON-STREET PARKING SPACES			NUMBER AND PERCENTAGE OCCUPIED		NOTES
	WEST	EAST	TOTAL	NO.	%	
Sunnydale - Visitation	18	25	43	18	42%	2-hr. pkg. (7 am-6 pm) both sides
Visitation - Leland	7	8	15	4	27%	2-hr. pkg. (7 am-6 pm) both sides
Leland - Raymond	8	11	19	7	37%	2-hr. pkg. (7 am-6 pm) both sides
Raymond - Arleta/Blanken	5	18	23	7	30%	2-hr. pkg. (7 am-6 pm) both sides
Arleta/Blanken - Tunnel	20	10	30	15	50%	2-hr. pkg. (7 am-6 pm) east side
Tunnel - Hester	11	5	16	2	13%	
Hester - Hester/US 101	24	25	49	8	16%	
TOTAL SEGMENT 1	93	102	195	61	31%	

Source: City and County of San Francisco, Department of Parking and Traffic, October 1996; The Duffey Company, April 1997 and August 1997.

TABLE E-14

**EXISTING PARKING CONDITIONS IN SEGMENT 2
(Highway 101 Overcrossing to Thomas Avenue)**

BLOCK	APPROXIMATE NUMBER OF ON-STREET PARKING SPACES			NUMBER AND PERCENTAGE OCCUPIED		NOTES
	WEST	EAST	TOTAL	NO.	%	
US 101/Meade - LeConte	24	5	29	7	24%	
LeConte - Key	10	6	16	3	19%	
Key - Jamestown	10	12	22	4	18%	
Jamestown - Ingerson	0	8	8	7	88%	2-hr. pkg. (8 am-6 pm) west side
Ingerson - Hollister	9	5	14	14	100%	2-hr. pkg. (8 am-6 pm) west side
Hollister - Gilman	7	8	15	14	93%	2-hr. pkg. (8 am-6 pm) west side
Gilman - Fitzgerald	11	3	14	9	64%	
Fitzgerald - Egbert	7	9	16	7	44%	
Egbert - Donner	6	8	14	3	21%	
Donner - Carroll	11	7	18	1	6%	
Carroll - Bancroft	6	15	21	3	14%	
Bancroft - Armstrong	9	10	19	5	26%	
Armstrong - Yosemite	4	4	8	3	38%	
Yosemite - Wallace	0	5	5	2	40%	
Wallace - VanDyke	3	7	10	7	70%	
VanDyke - Underwood	11	10	21	12	57%	1-hr. pkg. (7 am-6 pm) west side, 2-hr pkg. (7 am-6 pm) east side
Underwood - Thomas	6	2	8	3	38%	1-hr. pkg. (7 am-6 pm) west side
TOTAL SEGMENT 2	134	124	258	104	40%	

Source: City and County of San Francisco, Department of Parking and Traffic, October 1996; The Duffey Company, April 1997 and August 1997.

TABLE E-15

**EXISTING PARKING CONDITIONS IN SEGMENT 3
(Thomas Avenue to Kirkwood Avenue)**

BLOCK	APPROXIMATE NUMBER OF ON-STREET PARKING SPACES			NUMBER AND PERCENTAGE OCCUPIED		NOTES
	WEST	EAST	TOTAL	NO.	%	
Thomas - Shafter	7	6	13	6	46%	1 30-min. & 8 1-hr. meters
Shafter - Revere	8	6	14	8	57%	1 30-min. & 8 1-hr. meters
Revere - Quesada	10	7	17	10	59%	4 30-min. & 8 1-hr. meters
Quesada - Palou	6	5	11	11	100%	9 1-hr. meters
Palou - Oakdale	7	0	7	2	29%	4 1-hr. meters
Oakdale - Newcomb	8	4	12	7	58%	6 1-hr. meters
Newcomb - McKinnon	7	7	14	9	64%	7 1-hr. meters
McKinnon - LaSalle	5	6	11	7	64%	
LaSalle - Kirkwood	10	7	17	8	47%	1-hr. pkg. (7 am-6 pm) both sides
TOTAL SEGMENT 3	68	48	116	68	59%	

Source: City and County of San Francisco, Department of Parking and Traffic, October 1996; The Duffey Company, April 1997 and August 1997.

TABLE E-16

**EXISTING PARKING CONDITIONS IN SEGMENT 4
(Kirkwood Avenue to 16th Street)**

BLOCK	APPROXIMATE NUMBER OF ON-STREET PARKING SPACES			NUMBER AND PERCENTAGE OCCUPIED		NOTES
	WEST	EAST	TOTAL	NO.	%	
Kirkwood - Jerrold	5	10	15	9	60%	
Jerrold - Innes	4	4	8	1	13%	
Innes - Hudson	9	9	18	5	28%	
Hudson - Galvez	5	9	14	9	64%	
Galvez - Fairfax	9	11	20	7	35%	
Fairfax - Evans	0	0	0	0	0%	Tow-away both sides
Evans - Davidson	0	0	0	0	0%	Tow-away both sides
Davidson - Custer	4	11	15	0	0%	
Custer - Burke	9	9	18	8	44%	
Burke - Cargo/Arthur	13	7	20	10	50%	
Cargo/Arthur - Marin	0	0	0	0	0%	Tow-away both sides
Marin - Cesar Chavez	0	0	0	0	0%	Tow-away both sides
Subtotal	58	70	128	49	38%	
Cesar Chavez - 26th	0	4	4	0	0%	Tow-away both sides
26th - 25th	13	18	31	8	26%	
25th - 24th	18	18	36	17	47%	
24th - 23rd	15	20	35	28	80%	
23rd - 22nd	35	36	71	62	87%	
22nd - 20th	34	37	71	70	99%	
20th - 19th	13	14	27	26	96%	
19th - 18th	14	18	32	31	97%	
18th - Mariposa	17	17	34	30	88%	
Mariposa - 16th	34	36	70	21	30%	
Subtotal	193	218	411	293	71%	
19th: Third - Illinois	n/a	8	8	8	100%	On south side of 19th Street
18th: Third - Illinois	n/a	5	5	5	100%	On north side of 18th Street
Subtotal	n/a	13	13	13	100%	
TOTAL SEGMENT 4	251	301	552	355	64%	

Source: City and County of San Francisco, Department of Parking and Traffic, October 1996; The Duffey Company, April 1997 and August 1997.

TABLE E-17

**EXISTING PARKING CONDITIONS IN SEGMENT 5
(16th Street to King Street)**

BLOCK	APPROXIMATE NUMBER OF ON-STREET PARKING SPACES			NUMBER AND PERCENTAGE OCCUPIED		NOTES
	WEST	EAST	TOTAL	NO.	%	
<i>Third Street:</i>						
16th - 4th/Mission Rock	63	66	129	92	71%	Parking on shoulders
4th/Mission Rock - Lefty O'Doul Bridge	43	56	99	97	98%	Parking on shoulders
Lefty O'Doul Bridge - Berry	0	0	0	0	0%	
Berry - King	0	0	0	0	0%	Tow-away both sides
Subtotal (Third Street)	106	122	228	189	83%	
<i>Fourth Street:</i>						
3rd/Mission Rock - Peter Maloney Bridge	68	75	143	143	100%	Parking on shoulders
Peter Maloney Bridge - Berry	9	9	18	16	89%	
Berry - King	8	0	8	8	100%	
Subtotal (Fourth Street)	85	84	169	167	99%	
TOTAL SEGMENT 5	191	206	397	356	90%	

Source: City and County of San Francisco, Department of Parking and Traffic, October 1996; The Duffey Company, April 1997 and August 1997.

TABLE E-18

**EXISTING PARKING CONDITIONS IN SEGMENT 7
(King Street to Subway Portals)**

BLOCK	APPROXIMATE NUMBER OF ON-STREET PARKING SPACES			NUMBER AND PERCENTAGE OCCUPIED		NOTES
	WEST	EAST	TOTAL	NO.	%	
<i>Third Street:</i>						
King - Townsend	14	11	25	25	100%	11 1-hr. & 11 2-hr. meters. Tow-away (7 am-9 am) east side.
Townsend - Brannan	19	16	35	35	100%	11 30-min. & 19 1-hr. meters. Tow-away (7 am-9 am) east side.
Brannan - Bryant	17	10	27	24	89%	5 30-min. & 22 1-hr. meters. Tow-away (7 am-9 am) east side.
Subtotal (Third Street)	50	37	87	84	97%	
<i>Fourth Street:</i>						
King - Townsend	0	0	0	0	0%	
Townsend - Brannan	5	25	30	27	90%	1-hr. pkg. (7 am-6 pm) west side
Brannan - Bryant	18	20	38	33	87%	1-hr. pkg. (7 am-6 pm) both sides
Subtotal (Fourth Street)	23	45	68	60	88%	
TOTAL SEGMENT 6	73	82	155	144	93%	

Source: City and County of San Francisco, Department of Parking and Traffic, October 1996; The Duffey Company, April 1997 and August 1997.

TABLE E-19

**FUTURE PARKING IMPACTS IN SEGMENT 1
LIGHT RAIL ALTERNATIVE
(Caltrain Bayshore Station to the Highway 101 Overcrossing)**

BLOCK	APPROXIMATE NUMBER OF ON-STREET PARKING SPACES			ON-STREET PARKING OCCUPANCY	
	NO PROJECT & NO BUILD/TSM	PLUS OR [MINUS] DUE TO LRT	FUTURE TOTAL WITH LRT	EXISTING NUMBER OF SPACES OCCUPIED	SURPLUS OR [SHORT-FALL]
Sunnydale - Visitation	43	0	43	18	25
Visitation - Leland	15	0	15	4	11
Leland - Raymond	19	0	19	7	12
Raymond - Arleta/Blanken	23	0	23	7	16
Arleta/Blanken - Tunnel	30	5	35	15	20
Tunnel - Hester	16	0	16	2	14
Hester - Hester/US 101	49	0	49	8	41
TOTAL SEGMENT 1	195	5	200	61	139

Source: The Duffey Company, September 1997.

TABLE E-20

**FUTURE PARKING IMPACTS IN SEGMENT 2
LIGHT RAIL ALTERNATIVE
(Highway 101 Overcrossing to Thomas Avenue)**

BLOCK	APPROXIMATE NUMBER OF ON-STREET PARKING SPACES			ON-STREET PARKING OCCUPANCY	
	NO PROJECT & NO BUILD/TSM	PLUS OR [MINUS] DUE TO LRT	FUTURE TOTAL WITH LRT	EXISTING NUMBER OF SPACES OCCUPIED	SURPLUS OR [SHORT-FALL]
US 101/Meade - LeConte	29	[5]	24	7	17
LeConte - Key	16	[6]	10	3	7
Key - Jamestown	22	[12]	10	4	6
Jamestown - Ingerson	8	[8]	0	7	[7]
Ingerson - Hollister	14	[11]	3	14	[11]
Hollister - Gilman	15	[15]	0	14	[14]
Gilman - Fitzgerald	14	[14]	0	9	[9]
Fitzgerald - Egbert	16	5	21	7	14
Egbert - Donner	14	6	20	3	17
Donner - Carroll	18	[18]	0	1	[1]
Carroll - Bancroft	21	[21]	0	3	[3]
Bancroft - Armstrong	19	0	19	5	14
Armstrong - Yosemite	8	0	8	3	5
Yosemite - Wallace	5	4	9	2	7
Wallace - VanDyke	10	[4]	6	7	[1]
VanDyke - Underwood	21	[21]	0	12	[12]
Underwood - Thomas	8	4	12	3	9
TOTAL SEGMENT 2	258	[116]	142	104	38

Source: The Duffey Company, September 1997.

TABLE-E-21

**FUTURE PARKING IMPACTS IN SEGMENT 3, OPTION 1
LIGHT RAIL ALTERNATIVE
(Thomas Avenue to Kirkwood Avenue, two lanes in each direction)**

BLOCK	APPROXIMATE NUMBER OF ON-STREET PARKING SPACES			ON-STREET PARKING OCCUPANCY	
	NO PROJECT & NO BUILD/TSM	PLUS OR [MINUS] DUE TO LRT	FUTURE TOTAL WITH LRT	EXISTING NUMBER OF SPACES OCCUPIED	SURPLUS OR [SHORT-FALL]
Thomas - Shafter	12	[7]	6	6	0
Shafter - Revere	14	[2]	12	8	4
Revere - Quesada	17	[10]	7	10	[3]
Quesada - Palou	11	[6]	5	11	[6]
Palou - Oakdale	7	[7]	0	2	[2]
Oakdale - Newcomb	12	[5]	7	7	0
Newcomb - McKinnon	14	0	14	9	5
McKinnon - LaSalle	11	[2]	9	7	2
LaSalle - Kirkwood	17	[7]	10	8	2
TOTAL SEGMENT 3	116	[46]	70	68	2

Source: The Duffey Company, September 1997.

TABLE E-22

**FUTURE PARKING IMPACTS IN SEGMENT 3, OPTION 2
LIGHT RAIL ALTERNATIVE
(Thomas Avenue to Kirkwood Avenue, one lane in each direction)**

BLOCK	APPROXIMATE NUMBER OF ON-STREET PARKING SPACES			ON-STREET PARKING OCCUPANCY	
	NO PROJECT & NO BUILD/TSM	PLUS OR [MINUS] DUE TO LRT	FUTURE TOTAL WITH LRT	EXISTING NUMBER OF SPACES OCCUPIED	SURPLUS OR [SHORT-FALL]
Thomas - Shafter	13	[7]	6	6	0
Shafter - Revere	14	[2]	12	8	4
Revere - Quesada	17	[7]	10	10	0
Quesada - Palou	11	[5]	6	11	[5]
Palou - Oakdale	7	[7]	0	2	[2]
Oakdale - Newcomb	12	[4]	8	7	1
Newcomb - McKinnon	14	0	14	9	5
McKinnon - LaSalle	11	[2]	9	7	2
LaSalle - Kirkwood	17	[7]	10	8	2
TOTAL SEGMENT 3	116	[41]	75	68	7

Source: The Duffey Company, September 1997.

TABLE E-23

**FUTURE PARKING IMPACTS IN SEGMENT 3, OPTION 3
LIGHT RAIL ALTERNATIVE
(Thomas Avenue to Kirkwood Avenue, one hybrid lane in each direction)**

BLOCK	APPROXIMATE NUMBER OF ON-STREET PARKING SPACES			ON-STREET PARKING OCCUPANCY	
	NO PROJECT & NO BUILD/TSM	PLUS OR [MINUS] DUE TO LRT	FUTURE TOTAL WITH LRT	EXISTING NUMBER OF SPACES OCCUPIED	SURPLUS OR [SHORT-FALL]
Thomas - Shafter	13	0	13	6	7
Shafter - Revere	14	8	22	8	14
Revere - Quesada	17	0	17	10	7
Quesada - Palou	11	9	20	11	9
Palou - Oakdale	7	0	7	2	5
Oakdale - Newcomb	12	8	20	7	13
Newcomb - McKinnon	14	0	14	9	5
McKinnon - LaSalle	11	[2]	9	7	2
LaSalle - Kirkwood	17	0	17	8	9
TOTAL SEGMENT 3	116	23	139	68	71

Source: The Duffey Company, September 1997.

TABLE E-24

**FUTURE PARKING IMPACTS IN SEGMENT 3, OPTION 4
LIGHT RAIL ALTERNATIVE
(Thomas Avenue to Kirkwood Avenue, mixed flow lanes)**

BLOCK	APPROXIMATE NUMBER OF ON-STREET PARKING SPACES			ON-STREET PARKING OCCUPANCY	
	NO PROJECT & NO BUILD/TSM	PLUS OR [MINUS] DUE TO LRT	FUTURE TOTAL WITH LRT	EXISTING NUMBER OF SPACES OCCUPIED	SURPLUS OR [SHORT-FALL]
Thomas - Shafter	13	[3]	10	6	4
Shafter - Revere	14	[2]	12	8	4
Revere - Quesada	17	0	17	10	7
Quesada - Palou	11	9	20	11	9
Palou - Oakdale	7	0	7	2	5
Oakdale - Newcomb	12	8	20	7	13
Newcomb - McKinnon	14	0	14	9	5
McKinnon - LaSalle	11	3	14	7	7
LaSalle - Kirkwood	17	0	17	8	9
TOTAL SEGMENT 3	116	15	131	68	63

Source: The Duffey Company, September 1997.

TABLE E-25

**FUTURE PARKING IMPACTS IN SEGMENT 4
LIGHT RAIL ALTERNATIVE
(Kirkwood Avenue to 16th Street)**

BLOCK	APPROXIMATE NUMBER OF ON-STREET PARKING SPACES			ON-STREET PARKING OCCUPANCY	
	NO PROJECT & NO BUILD/TSM	PLUS OR [MINUS] DUE TO LRT	FUTURE TOTAL WITH LRT	EXISTING NUMBER OF SPACES OCCUPIED	SURPLUS OR [SHORT-FALL]
Kirkwood - Jerrold	15	[10]	5	9	[4]
Jerrold - Innes	8	[4]	4	1	3
Innes - Hudson	18	[8]	10	5	5
Hudson - Galvez	14	[14]	0	9	[9]
Galvez - Fairfax	20	0	20	7	13
Fairfax - Evans	0	0	0	0	0
Evans - Davidson	0	0	0	0	0
Davidson - Custer	15	0	15	0	15
Custer - Burke	18	0	18	8	10
Burke - Cargo/Arthur	20	6	26	10	16
Cargo/Arthur - Marin	0	0	0	0	0
Marin - Cesar Chavez	0	0	0	0	0
Subtotal	128	[30]	98	49	49
Cesar Chavez - 26th	4	[4]	0	0	0
26th - 25th	31	[6]	25	8	17
25th - 24th	36	6	42	17	25
24th - 23rd	35	[28]	7	28	[21]
23rd - 22nd	71	[21]	50	62	[12]
22nd - 20th	71	[15]	56	70	[14]
20th - 19th	27	[16]	11	26	[15]
19th - 18th	32	6	38	31	7
18th - Mariposa	34	[22]	12	30	[18]
Mariposa - 16th	70	[70]*	0	21	[21]
Subtotal	411	[170]	241	293	[52]
19th: Third - Illinois	8	[8]	0	8	[8]
18th: Third - Illinois	5	[5]	0	5	[5]
Subtotal	13	[13]	0	13	[13]
TOTAL SEGMENT 4	552	[213]	339	355	[16]

Source: The Duffey Company, September 1997.
*Due to Third Street Light Rail Project and Mission Bay development.

TABLE E-26

**FUTURE PARKING IMPACTS IN SEGMENT 7
NEW CENTRAL SUBWAY
(King Street to Subway Portals)**

BLOCK	APPROXIMATE NUMBER OF ON-STREET PARKING SPACES			ON-STREET PARKING OCCUPANCY	
	NO PROJECT & NO BUILD/TSM	PLUS OR [MINUS] DUE TO LRT	FUTURE TOTAL WITH LRT	EXISTING NUMBER OF SPACES OCCUPIED	SURPLUS OR [SHORT-FALL]
<i>Third Street:</i>					
King - Townsend	25	[25]	0	25	[25]
Townsend - Brannan	35	[29]	6	35	[29]
Brannan - Bryant	27	[10]	17	24	[7]
Subtotal (Third Street)	87	[64]	23	84	[61]
<i>Fourth Street:</i>					
King - Townsend	0	0	0	0	0
Townsend - Brannan	30	[5]	25	27	[2]
Brannan - Bryant	38	[18]	20	33	[13]
Subtotal (Fourth Street)	68	[23]	45	60	[15]
TOTAL SEGMENT 6	155	[87]	68	144	[76]
Source: The Duffey Company, September 1997.					

Figure E-1

NEW CENTRAL SUBWAY THIRD STREET DETOURS

Third Street Light Rail EIS/EIR

LEGEND

- Common Alignment - Caltrain Bayshore Station to Third/King
- Light Rail Alternative IOS
- Light Rail Alternative New Central Subway via Stockton
- Under Construction
- Primary Detour Routes
- Secondary Detour Routes
- BART/Muni Metro Station
- Proposed Third Street Light Rail Station
- Muni Metro Extension Station

SCALE (IN MILES)



Source: S.F. Department of Parking & Traffic

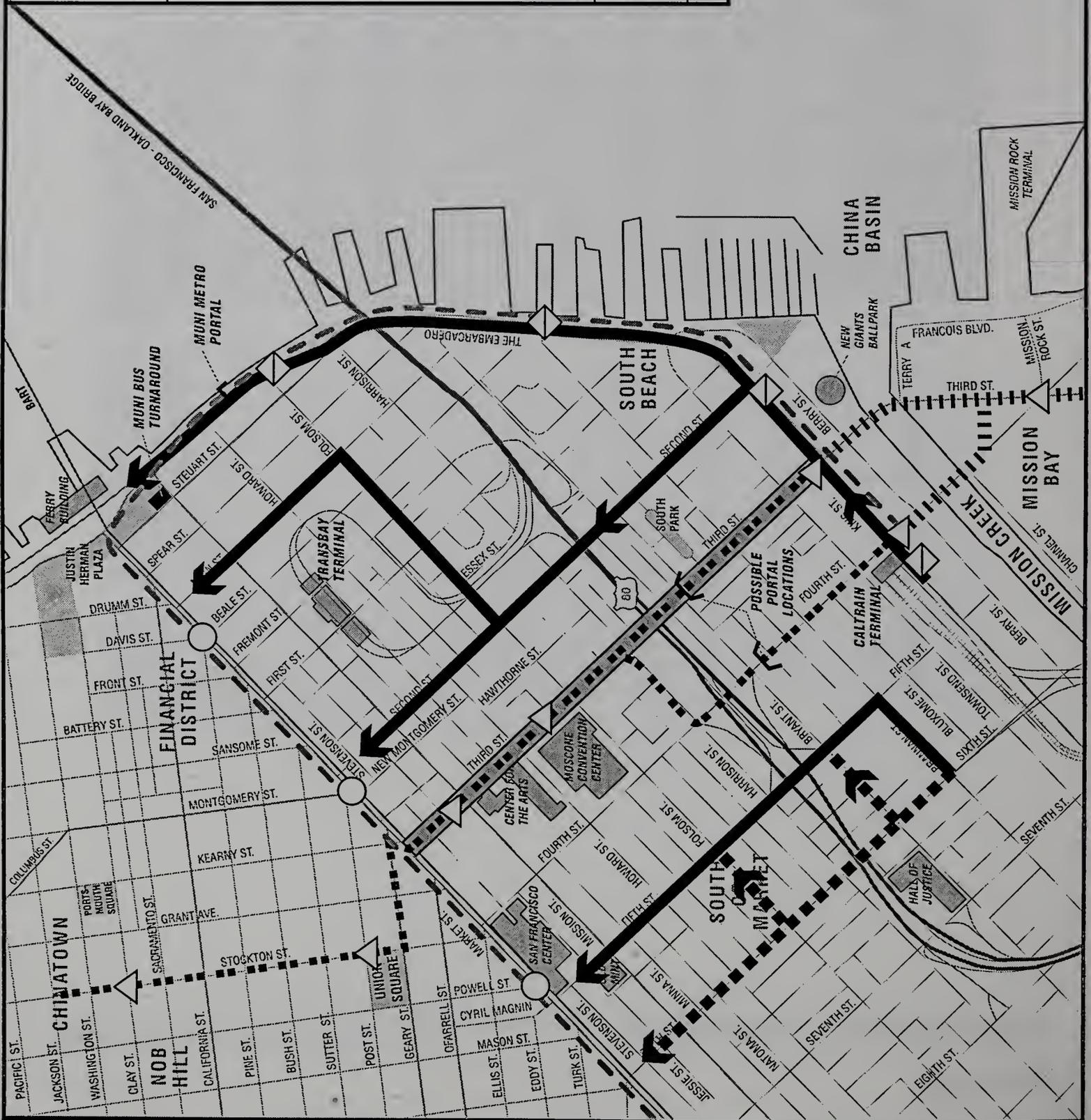


Figure E-2

NEW CENTRAL SUBWAY FOURTH STREET DETOURS

Third Street Light Rail EIS/EIR

LEGEND

- Common Alignment - Caltrain Bayshore Station to Third/King
- Light Rail Alternative IOS
- Light Rail Alternative New Central Subway via Stockton
- Under Construction
- Primary Detour Routes
- Secondary Detour Routes
- BART/Muni Metro Station
- Proposed Third Street Light Rail Station
- Muni Metro Extension Station

SCALE (IN MILES)



Source: S.F. Department of Parking & Traffic

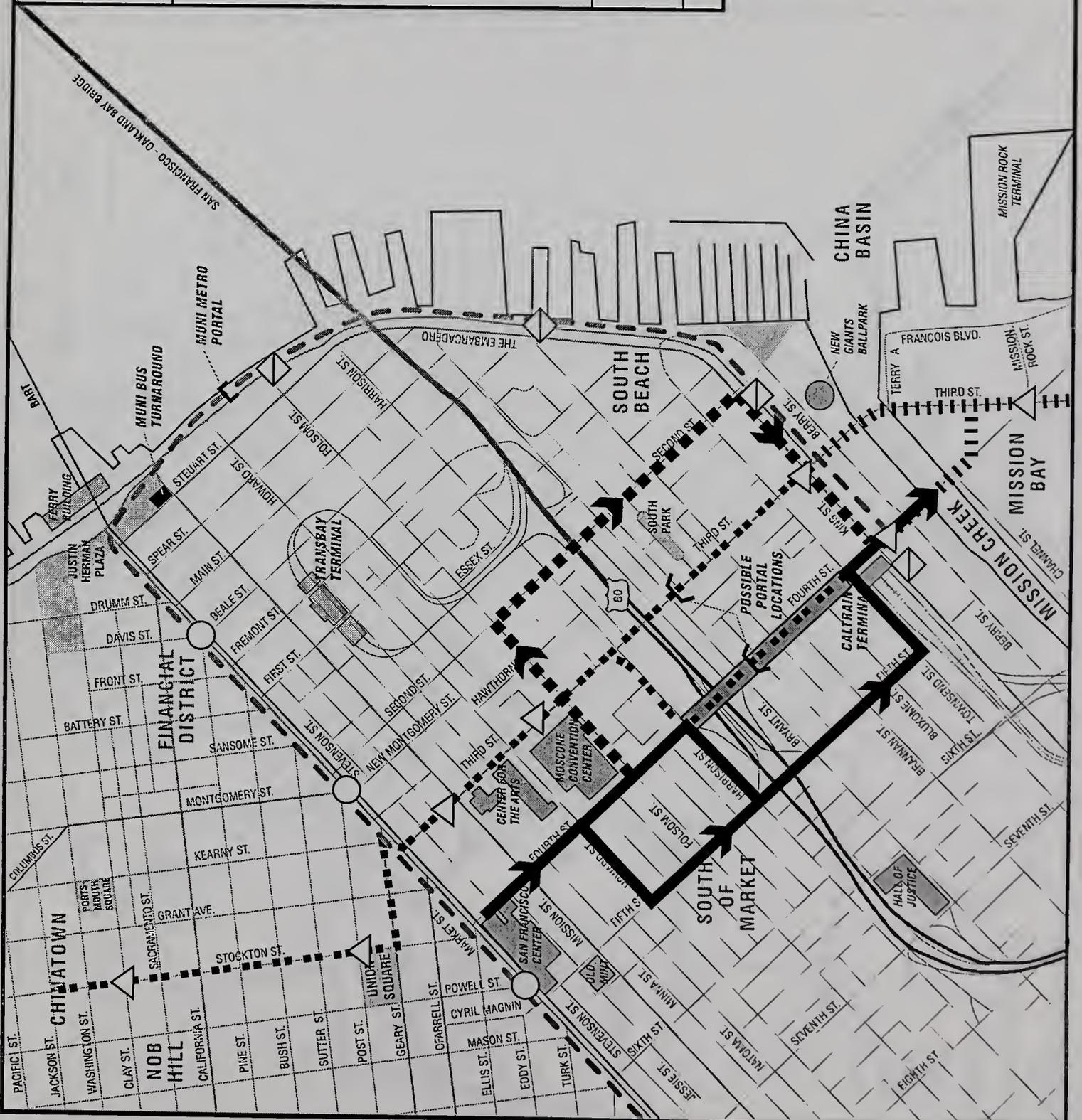


Figure E-3

**NEW CENTRAL SUBWAY
GEARY STREET DETOURS
Third Street Light Rail EIS/EIR**

LEGEND

- ||||| Common Alignment - Caltrain Bayshore Station to Third/King
- - - Light Rail Alternative IOS
- - - Light Rail Alternative New Central Subway via Stockton
- ▨ Under Construction
- ▬ Primary Detour Routes
- ▬ Secondary Detour Routes
- BART/Muni Metro Station
- △ Proposed Third Street Light Rail Station
- ◇ Muni Metro Extension Station

SCALE (IN MILES)



Source: S.F. Department of Parking & Traffic



Figure E-4

NEW CENTRAL SUBWAY STOCKTON STREET DETOURS

Third Street Light Rail EIS/EIR

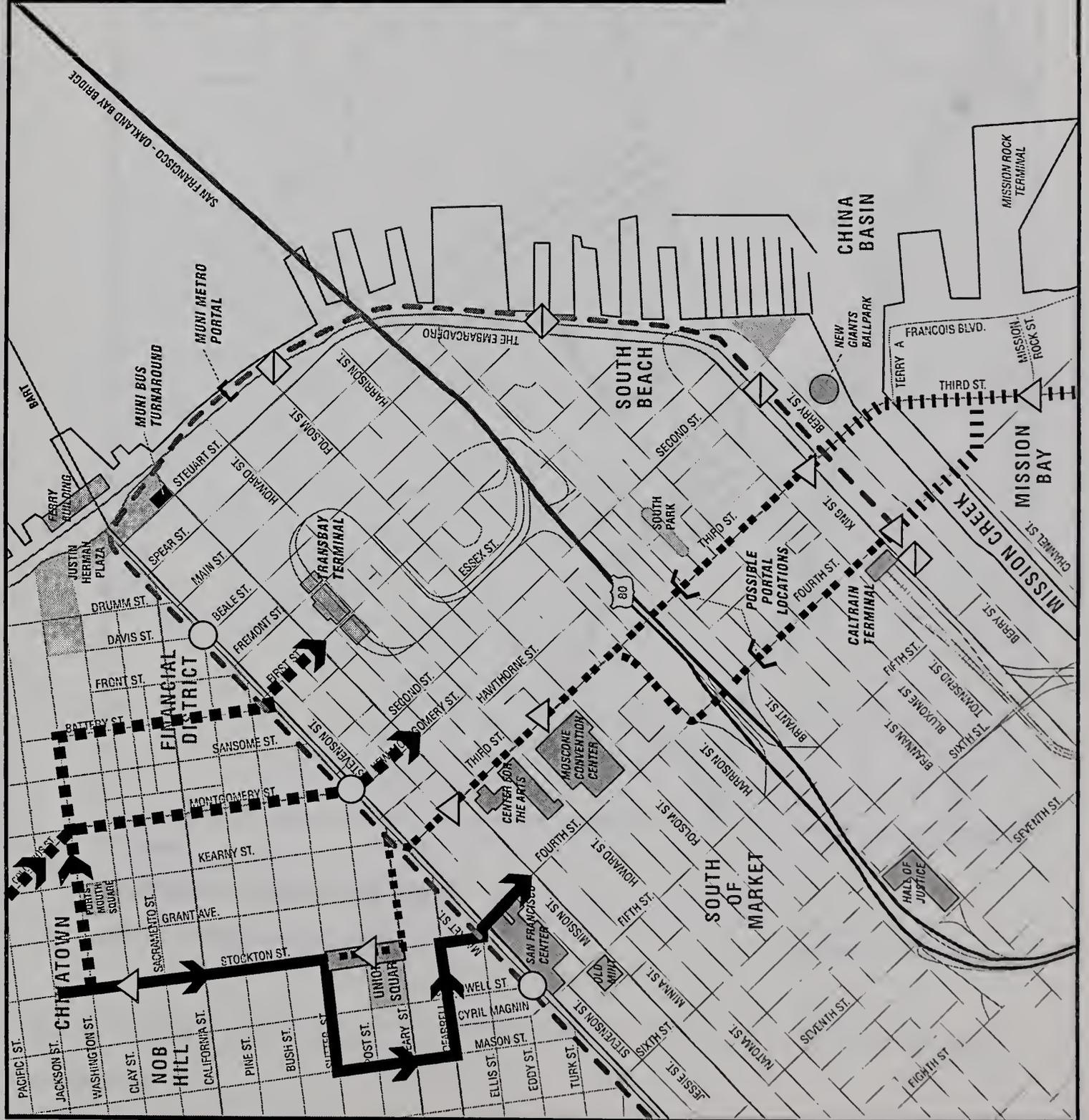
LEGEND

-  Common Alignment - Caltrain Bayshore Station to Third/King
-  Light Rail Alternative IOS
-  Light Rail Alternative New Central Subway via Stockton
-  Under Construction
-  Primary Detour Routes
-  Secondary Detour Routes
-  BART/Muni Metro Station
-  Proposed Third Street Light Rail Station
-  Muni Metro Extension Station

SCALE (IN MILES)

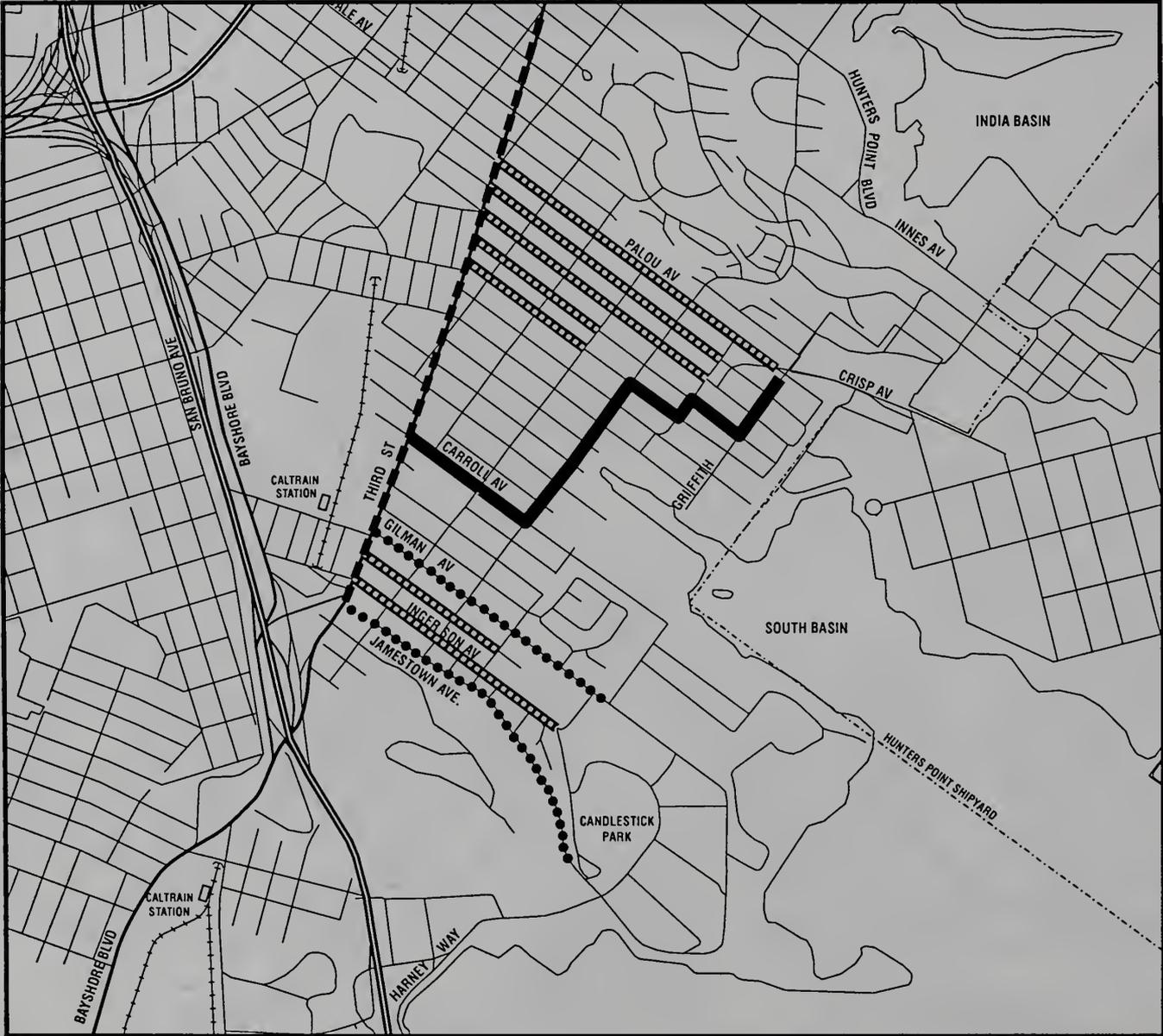


Source: S.F. Department of Parking & Traffic



LEGEND

- No Through Trucks over 11,000 pounds
- No Vehicles over 6,000 pounds
- Truck Route
- No Through Commercial Vehicles



J96-082.103 3rd St. (10/10/87)

FIGURE E-5

TRUCK ROUTES AND RESTRICTIONS

Third Street Light Rail EIS/EIR

Source: ICF Kaiser Engineers, Inc.

**APPENDIX F
NOTICE OF INTENT, NOTICE OF PREPARATION, AND CORRESPONDENCE AND
MEMORANDUM OF AGREEMENT WITH
THE STATE HISTORIC PRESERVATION OFFICE (SHPO)**

Glendale-Pasadena Airport under the provisions of the Aviation Safety and Capacity Expansion Act of 1990 (Title IX of the Omnibus Budget Reconciliation Act of 1990) (Public Law 101-508) and Part 158 of the Federal Aviation Regulations (14 CFR Part 150).

On October 4, 1996 the FAA determined that the application to use the revenue from a PFC submitted by Burbank-Glendale-Pasadena Airport Authority was substantially complete within the requirements of section 158.25 of Part 158. The FAA will approve or disapprove the application, in whole or in part, no later than January 17, 1997.

The following is a brief overview of the use application number 96-02-U-00-BUR:

Level of PFC: \$3.00.

Actual charge effective date:

September 1, 1994.

Estimated charge expiration date:

January 1, 2000.

Total estimated net PFC revenue to be used: \$27,441,000.00.

Brief description of proposed project(s): AF-04 Construct ARFF Station; LA-02 Acquire land—Plant B-6.

Class or classes of air carriers which the public agency has requested not be required to collect PFCs: Air Taxi/ Commercial Operators (ATCO) filing Form 1800-31

Any person may inspect the application in person at the FAA office listed above under FOR FURTHER INFORMATION CONTACT. In addition, any person may, upon request, inspect the application, notice and other documents germane to the application in person at

the Burbank-Glendale-Pasadena Airport Authority, Burbank-Glendale-Pasadena Airport.

Issued in Hawthorne, California on October 10, 1996.

Herman C. Blisi,

Manager, Airports Division, Western-Pacific Region.

(FR Doc. 96-27493 Filed 10-24-96; 8:45 am)

BILLING CODE 4810-13-M

Federal Transit Administration

Environmental Impact Statement on the Third Street Light Rail Project in San Francisco, CA

AGENCY: Federal Transit Administration, DOT.

ACTION: Notice of intent to prepare an environmental impact statement.

SUMMARY: The Federal Transit Administration (FTA) and the San Francisco Municipal Railway (MUNI) hereby give notice that they intend to prepare an Environmental Impact Statement (EIS) in accordance with the National Environmental Policy Act (NEPA), on the proposed construction of a light rail transit service along the Third Street corridor in San Francisco. The Third Street Light Rail Project would extend from a southern terminus connecting with the Bayshore CalTrain Station, travel along Bayshore Boulevard, cross Highway 101 to operate in a dedicated median right-of-way on Third Street through the Bayview commercial core, then past the Central Waterfront and Potrero Hill to King Street, North of Third and King

Streets surface and subway options would extend the light rail line through South of Market, the downtown area, crossing Market Street to the downtown area, with a northern terminus in Chinatown near Sacramento or Washington Street. Other options would operate directly into the Market Street MUNI Metro subway. As part of the project, a new light rail maintenance and storage facility is proposed for a site just east of I-280, between 16th and Mariposa Streets.

The local lead agency—the City and County of San Francisco, Planning Department, Office of Environmental Review (OER)—will ensure that the environmental document also satisfies the requirements of the California Environmental Quality Act (CEQA). In addition to the Third Street Light Rail Project, the EIS/EIR will evaluate a No Build Alternative, as well as any feasible alternatives generated through the scoping process. Scoping will be accomplished through correspondence with interested persons, organizations and federal, state and local agencies, and through two public scoping meetings. In addition, a Technical Advisory Committee and a Community Advisory Group will be established to provide input to the project. Numerous local community workshops and public informational forums are also planned to take place throughout the project corridor.

MEETING DATES: Public scoping meetings will be held at the following times and locations:

Day	Date	Time	Location
Wednesday	November 20, 1996	6:00 p.m.—9:00 p.m. ...	ANA Hotel, 60 Third Street
Thursday	November 21, 1996	5:00 p.m.—8:00 p.m. ...	Southeast Community Center, 1600 Oakdale Avenue.

The meetings will have an Open House format from 6:00 p.m. to 7:00 p.m., with a presentation and public comments on the EIS/EIR scope planned from 7:00 p.m. to 9:00 p.m.

ADDRESS FOR WRITTEN COMMENTS: Written comments on the scope of alternatives and impacts to be considered in the EIS/EIR should be sent to the local lead agency by December 6, 1996. Written comments should be sent to Mr. Paul Deutsch, Planning Department, Office of Environmental Review, 1660 Mission Street, Fifth Floor, San Francisco, CA 94103.

FOR FURTHER PROJECT INFORMATION CONTACT: Sue Olive, Project Manager, Service Planning Department, San

Francisco Municipal Railway, 949 Presidio Ave., San Francisco, CA 94115. Phone (415) 923-8100; or Donna Turchie, Office of Planning and Program Development, Federal Transit Administration, 201 Mission St., Rm. 2210, San Francisco, CA 94105. Phone (415) 744-3115.

SUPPLEMENTARY INFORMATION: Scoping

FTA and the local lead agency invite interested individuals, organizations, and federal, state and local agencies to participate in defining the alternatives to be evaluated in the EIS/EIR and identifying any significant social, economic, or environmental issues related to the alternatives. An

information packet describing the purpose of the proposed federal action, the proposed alternatives, the impact topics to be evaluated, the community involvement program, and the preliminary project schedule will be available at the Public Scoping Meetings. Persons may request the scoping materials by contacting Paul Deutsch at the address above, or by calling him at (415) 558-8383. Scoping comments may be made verbally at either of the public scoping meetings or in writing. See the DATES and ADDRESSES sections above for locations and times. During scoping, comments should focus on identifying specific social, economic or environmental impacts to be evaluated and suggesting design options



PETE WILSON
GOVERNOR

State of California

GOVERNOR'S OFFICE OF PLANNING AND RESEARCH

1400 TENTH STREET
SACRAMENTO 95814



LEE GRISSOM
DIRECTOR

DATE: October 24, 1996
TO: Reviewing Agencies
RE: THIRD STREET LIGHT RAIL PROJECT, 96.281E
SCH# 96102097

Attached for your comment is the Notice of Preparation for the THIRD STREET LIGHT RAIL PROJECT, 96.281E draft Environmental Impact Report (EIR).

Responsible agencies must transmit their concerns and comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of this notice. We encourage commenting agencies to respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

PAUL DEUTSCH
CITY & COUNTY OF SAN FRANCISCO
1660 MISSION STREET
SAN FRANCISCO, CA 94103-2414

with a copy to the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the review process, call Kristen Derscheid at (916) 445-0613.

Sincerely,

ANTERO A. RIVASPLATA
Chief, State Clearinghouse

Attachments

cc: Lead Agency

City & County of S.F.
Dept. of City Planning

NOV 01 1996

OFFICE OF
ENVIRONMENTAL REVIEW

**NOTICE THAT AN
ENVIRONMENTAL IMPACT REPORT
IS DETERMINED TO BE REQUIRED**

Date of this Notice: October 18, 1996

Lead Agency: City and County of San Francisco, Planning Department
1660 Mission Street, Fifth Floor, San Francisco, CA 94103

Agency Contact Person: Paul Deutsch

Telephone: (415) 558-6383

Project Title: (File #96.281E) Third Street Light Rail Project
Project Sponsor: The San Francisco Municipal Railway (MUNI)
Project Contact Person: Sue Olive (415/923-6100)

Project Location: Third Street corridor, extending from west of Highway 101 in Visitacion Valley, through the Bayview-Hunters Point, Potrero Hill and South of Market communities to Chinatown (see attached Figure).

City and County: San Francisco

Project Description: The proposed project is to construct an electric light rail transit (LRT) project along the Third Street corridor in San Francisco to increase service reliability, reduce travel time, and improve connectivity between South Bayshore communities and the rest of San Francisco through MUNI's extensive rail network. The project also hopes to use rail as a catalyst for revitalizing the Third Street commercial core in Bayview-Hunters Point. The Third Street Light Rail options include: 1) connecting with the existing Market Street MUNI Metro subway, 2) constructing a new central subway along Third Street via Stockton or Kearny Streets to a terminal near Sacramento or Washington Street; and 3) a surface alignment running along The Embarcadero and turning west onto either the Market Street 'F' line or Washington Street. Construction and operation would be scheduled between 1999 and 2002, contingent on available funding. The proposed LRT line would operate from a southern terminus at the Bayshore Caltrain Station, travel along Bayshore Boulevard, crossing Hwy. 101 to operate in a dedicated median right-of-way on Third Street through the Bayview commercial core, then past the Central Waterfront and Potrero Hill and through Mission Bay to King Street. North of Third and King Streets, surface and subway options would extend the light rail line through South of Market, crossing Market Street to the downtown area, with a northern terminus in Chinatown near Sacramento or Washington Streets. Other options would operate directly into the Market Street MUNI Metro subway. As part of the project, a new LRT maintenance facility is proposed for a site just east of I-280, between 16th and Mariposa Streets. The No Project Alternative, which will also be evaluated, would be continuation or expansion of the MUNI 15 and 9X bus line service that are currently the major trunk lines in the project area.

THIS PROJECT MAY HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT AND AN ENVIRONMENTAL IMPACT REPORT IS REQUIRED. This determination is based upon the criteria of the Guidelines of the State Secretary for Resources, Section 15063 (Initial Study), 15064 (Determining Significant Effect) and 15065 (Mandatory Findings of Significance).

Deadline for Filing of an Appeal of this Determination to the City Planning Commission: October 30, 1996. An appeal requires: (1) a letter specifying the grounds for the appeal, and (2) a \$209.00 filing fee. The public is invited to comment on the scope of the EIR. Such comments must be received by December 6, 1996 to ensure consideration in preparing the Draft EIR.


Barbara Sahm
Environmental Review Officer



PLANNING DEPARTMENT

City and County of San Francisco 1660 Mission Street San Francisco, CA 94103-2414

(415) 558-6378

PLANNING COMMISSION
FAX: 558-6409

ADMINISTRATION
FAX: 558-6426

CURRENT PLANNING/ZONING
FAX: 558-6409

LONG RANGE PLANNING
FAX: 558-6426

NOTICE OF PREPARATION

To: Responsible and Trustee Agencies

From: San Francisco Planning Department
1660 Mission Street, San Francisco, CA 94103

RE: Notice of Preparation of a Draft Environmental Impact Report

The City and County of San Francisco will be the lead agency and will prepare an Environmental Impact Report (EIR) for the following project: **96.281E: Third Street Light Rail Project.**

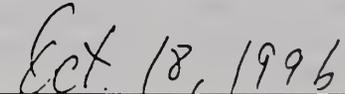
The proposed project is to construct an electric light rail transit project along the Third Street corridor in San Francisco to increase service reliability, reduce travel time, and improve connectivity between South Bayshore communities and the rest of San Francisco through MUNI's extensive rail network. The Third Street Light Rail options include: 1) connecting with the existing Market Street MUNI Metro subway; 2) constructing a new central subway along Third Street via Stockton or Kearny Street to a terminal near Sacramento or Washington Street, and; 3) a surface alignment running along the Embarcadero and turning west onto either the Market 'F' line or Washington Street. (Map enclosed) Construction and operation would be scheduled between 1999 and 2002, contingent on available funding. The proposed light rail would operate from a southern terminus at the Bayshore CalTrain Station, travel along Bayshore Boulevard, crossing Hwy. 101 to operate in a dedicated median right-of-way on Third Street through the Bayview commercial core, then past the Central Waterfront and Potrero Hill and through Mission Bay to King Street. North of Third and King Streets, surface and subway options would extend the light rail line through South of Market, crossing Market Street to the downtown area, with a northern terminus in Chinatown near Sacramento or Washington Streets. Other options would operate directly into the Market Street MUNI Metro subway. As part of the project, a new light rail maintenance and storage facility is proposed for a site just east of I-280, between 16th and Mariposa Streets. The No Project Alternative, which will also be evaluated, would be continuation or expansion of the MUNI 15 and 9X bus line service that are currently the major trunk lines in the project area.

The EIR will analyze the following potential environmental effects: changes in land use, visual quality, population, traffic, parking, transit, pedestrian and bicycle access and safety, noise, air quality, utilities and public services, endangered species and their habitat, parkland, geology and topology, water quality, energy and natural resources, hazardous materials, historic architectural resources, and archaeology. Pursuant to State CEQA Guidelines Section 15063, an EIR will clearly be required and no Initial Study has been prepared. All Initial Study checklist items will be analyzed in the EIR.

We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

Due to time limits mandated by State law, your response must be sent at the earliest possible date, but no later than 30 days after receipt of this notice. Please send your response to Paul Deutsch at the address shown above. Please include the name of a contact person in your agency.


Paul Deutsch
Office of Environmental Review


(Date)



PLANNING DEPARTMENT

City and County of San Francisco 1660 Mission Street San Francisco, CA 94103-2411

(415) 558-6378

PLANNING COMMISSION
FAX: 558-6409

ADMINISTRATION
FAX: 558-6426

CURRENT PLANNING/ZONING
FAX: 558-6409

LONG RANGE PLANNING
FAX: 558-6426

SCH# 96102097

NOTICE OF PREPARATION: ADDENDUM

To: Responsible and Trustee Agencies

From: San Francisco Planning Department

1660 Mission Street, San Francisco, CA 94103

RE: File No. 96.281E, Third Street Light Rail Project EIS/EIR

A Notice of Preparation was distributed on October 18, 1996 that the City and County of San Francisco is the lead agency and will prepare an Environmental Impact Report (EIR) for the following project: 96.281E: Third Street Light Rail Project. A Notice of Intent that an Environmental Impact Statement (EIS) will be prepared for the Third Street Light Rail Project was issued in the Federal Register on October 25, 1996 by the Federal Transit Administration.

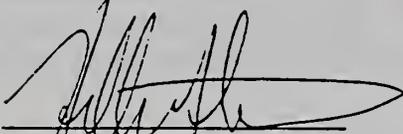
This addendum is to notify Responsible and Trustee Agencies that alternative locations for the rail maintenance facility will be considered as a result of agency scoping and input from the Technical Advisory Committee. The alternative maintenance facility locations identified to date are shown on the Figure on the reverse side of this Notice and are described below:

1. Cargo Way Site Located south of Islais Creek and east of Third Street, this alternative site is located in an industrial area on property owned by the Port of San Francisco. The 17.5 acre site is vacant land created by Bay mud and landfill on Seawall Lot 344, comprised of 11 acres of land designated in the Port's proposed Waterfront Mixed Use Opportunity Area and 6.5 acres of land designated as Other Maritime Areas. Access to the site would be via a new driveway connecting to Amador Street to the north of the site. An existing Union Pacific freight track from Quint Street to access Port property would need to be relocated (taking a portion of one property) south of the intersection with Cargo Way to minimize potential conflicts with light rail tracks. The site is bordered by freight tracks leading to the SF Port's Intermodal Container Transfer Facility along the southwest, a KSFO radio station antenna and tallow factory to the north and the South Container Terminal to the east.
2. Western Pacific Rail Yard Site This privately owned 30 acre site is located north of Islais Creek Channel on the northern side of Pier 80 in an area surrounded by industrial development. The vacant site is designated a proposed Waterfront Mixed Use Opportunity Area in the City's Waterfront Land Use Master Plan. The site was created by landfill. Access to the site would be from 25th Street along the north side of the site, connecting to Third Street. An inactive freight track along Illinois Street borders the site to the west. The site extends to the Bay on the east and is bordered by a Camper Service Center to the south fronted on Cesar Chavez Street. The proposed maintenance facility would use about 12 acres of the site.

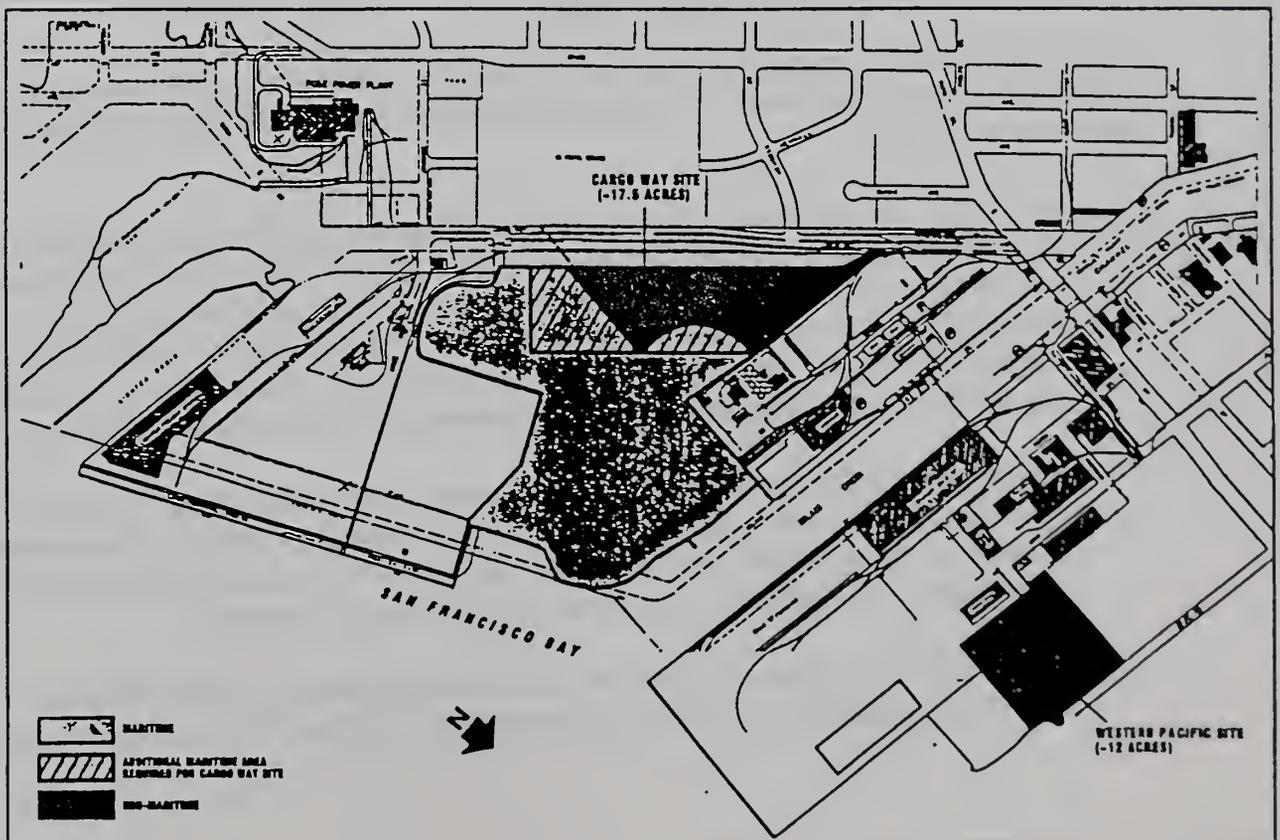
Both of the above maintenance facility sites identified to date are on sovereign land that was historically submerged tidelands held under public trust by the Port Commission consistent with the provisions of the Burton Act under the jurisdiction of the State Lands Commission.

The maintenance facility would include: storage tracks for up to 100 light rail vehicles, a two-story (25 foot to 40 foot high) metal or concrete central building 260 feet by 520 feet, and a maintenance of way building 50 feet by 80 feet, and a paint and body shop 65 feet by 210 feet. Construction of the facility is estimated to take two years and would employ about 50 persons during construction and 300 persons during operation. The following potential environmental effects of the proposed maintenance facility will be analyzed in the environmental document: hazardous materials, land use, geology, water quality, visual quality, traffic, parking, freight rail, biology, noise, air quality, energy, historic architectural resources, archaeology, socioeconomic effects, and relocation.

If you have views as to the scope and content of the environmental information germane to your agency's statutory responsibilities in connection with the above alternatives that is different from comments previously submitted in response to the October notice, please send your comments to Brian Kalahar at the address shown above. You do not need to resubmit previous comments submitted on the original NOP/NOI.


Hillary E. Gitelman
Environmental Review Officer

June 27, 1997



MARITIME AND NON-MARITIME AREAS AT
CARGO WAY AND WESTERN PACIFIC SITES



U.S. Department
of Transportation
Federal Transit
Administration

REGION IX
Arizona, California,
Hawaii, Nevada, Guam

201 Mission Street
Suite 2210
San Francisco, CA 94105
415-744-3133
415-744-2725 (fax)

JUN 05 1997

Mr. Clarence Caesar, Historian
Office of Historic Preservation
P.O. Box 942896
Sacramento, CA 94296-0001

Re: MUNI Third St. Light Rail EIS/EIR
Area of Potential Effect (APE)

Dear Mr. Caesar:

We are transmitting in a separate mailing the aerial photographs for the Third Street Light Rail alternatives, showing the proposed Area of Potential Effect (APE) for historic properties and archaeological resources.

Enclosed are: a copy of technical paper No. 2 describing each of the proposed alternatives for the light rail project; a copy of the most recent newsletter describing the project alternatives; and notes from your January 8th meeting with the environmental consultants related to the APE.

The APE for historic properties is shown on the maps as a dashed red line and includes cross-hatched areas for adjacent properties, where relevant. The APE is proposed as follows:

- o from CalTrain Bayshore Station at the southern-most point of the alignment to King Street, the proposed light rail would be in the middle of the existing street on the surface where the APE is proposed as the street ROW (curb to curb) and would not include adjacent properties unless a station platform would require the alignment to use a portion of a sidewalk and parking area. Where this occurs the APE includes adjacent property boundaries shown as cross-hatched parcels.
- o the commercial business area of Bayshore-Hunters Point along Third Street between Shafter and Kirkwood Streets (about 8 blocks) would include adjacent properties because the sidewalk area could be affected by improvements to landscaping or streetcars associated with the light rail project.
- o the APE for the alignments that include cut-and-cover or mined tunneling includes the adjacent properties with existing buildings at the tunnel portals and

above the ROW for the tunnel. Vacant lots are not included in the APE but parks or recreational areas are included.

- o the alignment alternative along the Embarcadero is an existing alignment that has been environmentally cleared in the MUNI Turnaround EIS/EIR, the Embarcadero Roadway Environmental Assessment, and the Mid-Embarcadero Roadway EIS. The same is true of the Market Street surface and tunnel segments where the rail right of way is already established.
- o the surface alignment alternative along Washington Street (Option 3) includes the street ROW and adjacent buildings because the street is narrow and sidewalks would need to be modified to accommodate the station platforms.

If you have questions about the maps or the assumptions used in defining the APE, please contact the project's environmental consultants, Marilyn Duffey at (415) 291-0230 or Michael Corbett at (510) 548-4123. You also may contact FTA representative Donna Turchie at (415) 744-3115.

Sincerely,


Leslie T. Rogers
Regional Administrator

Enclosures

✓ cc: Marilyn Duffey

OFFICE OF HISTORIC PRESERVATION
 DEPARTMENT OF PARKS AND RECREATION
 P.O. BOX 942806
 SACRAMENTO 94298-0001
 (916) 853 8624
 FAX: (916) 853-9824

RECEIVED
 AUG - 7 1997



July 30, 1997

REPLY TO:

FTA970609A

Leslie T. Rogers, Regional Administrator
 Federal Transit Administration
 Region IX
 201 Mission Street, Suite 2210
 SAN FRANCISCO CA 94105

Re: Area of Potential Effects for the MUNI 3rd Street Light
 Rail Project, San Francisco, San Francisco County.

Dear Ms. Rogers:

Thank you for submitting to our office your June 5, 1997 letter and supporting aerial photo documentation regarding the proposed Area of Potential Effects (APE) for the proposed MUNI Third Street Light Rail project, San Francisco, San Francisco County. The proposed alignment for the rail project will proceed north from the Caltrain Bayshore Station along 3rd Street through San Francisco, culminating in the downtown area. The APE will be used to identify and evaluate historic properties on or near the project area, and any potential effects the project may have on such properties.

You are seeking our comments on the proposed APE, as described, in accordance with 36 CFR 800, regulations implementing Section 106 of the National Historic Preservation Act. Our review of the submitted documentation leads us to conclude that the proposed APE, as described, is adequate for the purposes of this project, and meets the definition standards set forth in 36 CFR 800.2(c).

Thank you again for seeking our comments on your project. If you have any questions, please contact staff historian Clarence Caesar at (916) 653-8902.

Sincerely,

Cheryl Widell
 State Historic Preservation Officer

OPTIONAL FORM NO. 10 (7-90)

FAX TRANSMITTAL		# of pages
To: Marilyn Dufsky	From: Donna Turley	
Dept: Agency	Phone #	FTA
Fax #	Fax #	
NSN 7540 0 317-7328	5000-101	FEDERAL BUREAU OF INVESTIGATION



U.S. Department
of Transportation
Federal Transit
Administration

REGION IX
Arizona, California,
Hawaii, Nevada, Guam

201 Mission Street
Suite 2210
San Francisco, CA 94105
415-744-3133
415-744-2726 (fax)

OCT 31 1997

Mr. Clarence Caesar, Historian
Office of Historic Preservation
P.O. Box 942896
Sacramento, CA 94296-0001

Re: MUNI Third St. Light Rail EIS/EIR
Area of Potential Effect (APE)

Dear Mr. Caesar:

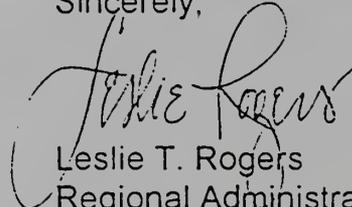
On June 5th of this year, we transmitted to you a set of aerial photographs and a letter describing the proposed Area of Potential Effect (APE) for historic properties for the Third Street Light Rail EIS/EIR. At that time we understood that the proposed design for the alignment through the commercial business area of Bayshore-Hunters Point along Third Street between Shafter and Kirkwood Streets (about eight blocks) would include adjacent properties because the sidewalk area could be affected by improvements to landscaping or streetcars associated with the light rail project. It was later discovered that the limited width of the street in the commercial area would not allow for the improvements (landscaping and changes to storefronts) originally envisioned. Instead after working closely with local businesses, the improvements would be limited to textured sidewalks and improved signage.

Based on the revised design plans and on the technical studies that have been completed that show no effects to the visual character of the commercial area, and no noise or vibration effects in that area, we are proposing to modify the APE in the eight block area to be consistent with the APE for the rest of the alignment along Third Street that is curb to curb and would not include adjacent properties. This revision to the APE would eliminate the historic property evaluation of about 66 buildings in the commercial area of Third Street.

Two other changes to the original alternative alignments have taken place since our June letter. The surface alignment alternative along Washington Street (Option 3) and the Kearny Street subway alignment have both been dropped from further consideration in the EIS/EIR. This decision was made during the screening process by community representatives and the technical advisory committee for the project.

We request your concurrence with the changes to the APE so that we can proceed with the analysis and preparation of the environmental documents. If you have any questions about these changes, please contact the environmental task manager, Marilyn Duffey, at (415) 291-0230 or the FTA contact, Donna Turchie, at (415) 744-3115.

Sincerely,



Leslie T. Rogers
Regional Administrator

cc: Cherilyn Widell, SHPO
Marilyn Duffey
Michael Corbett

PS DT

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942896
SACRAMENTO 94296-0001
(916) 653-6624
FAX: (916) 653-9824



December 15, 1997

FTA970609A

Leslie T. Rogers, Regional Administrator
Federal Transit Administration
Region IX
201 Mission Street, Suite 2210
SAN FRANCISCO CA 94105

REC'D
DEC 15 1997

Re: MUNI Third Street Light Rail EIS/EIR Area of Potential Effect, San Francisco, San Francisco County.

Dear Ms. Rogers:

Thank you for submitting to our office your October 31, 1997 letter and supporting documentation regarding the changes proposed for the MUNI Third Street Light Rail project, San Francisco, San Francisco County. The changes involve the original proposal to construct landscaping and storefront improvements along the alignment through the commercial business area of Bayshore-Hunters Point along Third Street between Shafter and Kirkwood Streets. At the time of the original proposal it was understood that the design for the project would involve adjacent properties because of the anticipated effects to the sidewalk area caused by landscaping or streetcars associated with the rail project. It was later discovered that the limited width of the street in the commercial area would not allow for the improvements originally envisioned.

As a result of these changes, the Federal Transit Administration (FTA) has decided that the revised plans will show the project improvements involving only the texturing of sidewalks and improved signage. This will allow the FTA to revise the APE and eliminate the historic property evaluation of about 66 buildings in the commercial area of Third Street. You are seeking our comments on your determination of the adequacy of the new project revisions and the effect they will have on historic properties in the affected area in accordance with 36 CFR 800, regulations implementing Section 106 of the National Historic Preservation Act. Our review of the submitted documentation leads us to concur with your determination that the proposed project revisions, as described, are adequate for the purposes of this project and will have no effect on historic properties. Please provide, at your earliest possible convenience, a scaled down mapping of the revised project area for our records.

Thank you again for seeking our comments on your project.
If you have any questions, please contact staff historian
Clarence Caesar at (916) 653-8902.

Sincerely,

A handwritten signature in cursive script, appearing to read "Cheryl Widell". The signature is written in dark ink and is positioned above the typed name.

Cherilyn Widell
State Historic Preservation Officer



U.S. Department
of Transportation
Federal Transit
Administration

REGION IX
Arizona, California,
Hawaii, Nevada, Guam

201 Mission Street
Suite 2210
San Francisco, CA 94105
415-744-3133
415-744-2726 (fax)

DEC 19 1997

Mr. Clarence Caesar, Historian
Office of Historic Preservation
P.O. Box 942896
Sacramento, CA 94296-0001

Re: MUNI Third St. Light Rail EIS/EIR
Historic Property Survey Report

Dear Mr. Caesar:

The San Francisco Municipal Railway (MUNI) is proposing to extend the existing light rail system south from the downtown area to serve the Bayview-Hunters Point residential and business community. The Section 106 documentation was prepared concurrently with the preparation of the Draft EIS/EIR which is currently scheduled for circulation to the public in March of 1998.

The purpose of this Historic Property Survey Report (HPSR) is to request review and concurrence from the SHPO on the eligibility and non-eligibility of properties within the Area of Potential Effect for the proposed Third Street Light Rail project alternatives. We are also enclosing with the HPSR a copy of the Administrative draft EIS/EIR Cultural Resource Section for your review. If appropriate, concurrence with the Finding of Effect is also requested.

This HPSR summarizes the historic properties and cultural resources within the APE for each of the alternatives. Copies of the Historic Architecture Survey Report prepared by Michael Corbett of Dames & Moore, Inc., and the Archaeological Survey Report prepared by David Chavez & Associates are attached. These reports include the evaluation forms for individual properties.

The HPSR was prepared in accordance with Section 106 of the National Historic Preservation Act of 1996, as amended and implementing regulations (36 CFR 800) to document findings regarding the presence of National Register of Historic Places (NRHP) listed and NRHP eligible properties in the Area of Potential Effect for the project.

For pre-historic archaeological resources, the investigation identified four site locations as having high sensitivity for containing potential NRHP eligible resources that could be impacted by project construction; six site locations with moderate sensitivity; and seven site locations with low sensitivity. Pre-construction archaeological testing programs are recommended for the high sensitivity locations in order to determine the presence or absence of prehistoric cultural deposits, assess the integrity of the resources and calculate the significance of the deposits based on NRHP criteria. Construction monitoring is recommended for the six locations with medium sensitivity for the presence of resources that could be impacted by construction trenching. If cultural

deposits are encountered at that time, the nature and integrity of the finds can be evaluated by the supervisory archaeologists and NRHP criteria can be applied to determine if mitigation programs are appropriate. The SHPO and Advisory Council on Historic Preservation would be consulted for NRHP eligibility determinations and mitigation requirements.

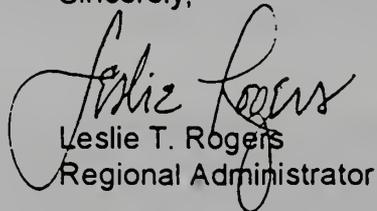
For historic archaeological resources, the investigation identified no site locations as having high sensitivity for containing potential NRHP eligible resources that could be impacted by project construction; four site locations with moderate sensitivity; and 14 site locations with low sensitivity. No pre-construction archaeological testing programs are recommended for historical sites. However, one of the project segments, the Crossover between Third and Fourth Streets, immediately south of Harrison Street, where moderate historical sensitivity is identified, has been recommended for subsurface testing for prehistoric cultural deposits. The testing program will, therefore, serve as an investigative process for historical deposits, features and artifacts as well. Archaeological monitoring is recommended for the additional three project sections identified as moderately sensitive.

The historic architectural investigation identified 165 properties in the APE. Of these, 60 properties that have been previously evaluated as NRHP eligible and three properties that have been previously evaluated as ineligible for the NRHP. Of these 63 previously evaluated properties, two appeared to warrant a change in NRHP status and were re-evaluated. One hundred two properties had not been evaluated for the NRHP ; 75 of these properties were 45 years old, and these 75 properties were evaluated for NRHP eligibility for the first time as a result of this investigation. Thirty nine properties appear to meet the criteria for NRHP eligibility; and 36 properties do not appear to meet the criteria for NRHP eligibility. Twenty seven properties were less than 45 years old, had been altered or had been moved. None of these 27 properties appear to meet the criteria of exceptional significance under Criteria Consideration G, and therefore none appear eligible for the NRHP.

The only potential effect to historic properties for the Initial Operating Segment that has been identified is potential construction and visual effects to the Islais Creek Bridge due to the addition of tracks and overhead wires for the proposed light rail project. Potential effects to properties within the APE for the New Central Subway are related to vibration and dewatering for tunnel construction are discussed in the Draft EIS/EIR.

We would appreciate your response to this request for concurrence at your earliest convenience so that we can include your review in the environmental documentation.

Sincerely,


Leslie T. Rogers
Regional Administrator

Enclosures

cc: Chenilyn Widell, SHPO

Marilyn Duffey

Brian Kalahar, San Francisco Planning Department

STATE OF CALIFORNIA — THE RESOURCES AGENCY

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942896
SACRAMENTO 94296-0001
(916) 653-6624
FAX: (916) 653-9824

FAX TRANSMITTAL

From <i>Marilyn Duffey</i>	To <i>D. Turner</i>	# of pages <i>3</i>
Dept./Agency	Phone # <i>744 3115</i>	
Fax #	Fax #	
NSN 7540-01-217 7368		6099 101
GENERAL SERVICES ADMINISTRATION		



February 17, 1998

REPLY TO:

FTA970609A

Leslie T. Rogers, Regional Administrator
Federal Transit Administration
Region IX
201 Mission Street, Suite 2210
SAN FRANCISCO CA 94105

Re: MUNI Third Street Light Rail Draft Environmental Impact
Statement/Environmental Impact Report Historic
Property Survey Report, San Francisco, San Francisco County.

Dear Ms. Rogers:

Thank you for submitting to our office your December 19, 1997 letter and Historic Property Survey Report (HPSR) regarding the proposed extension of the San Francisco Municipal Railway (MUNI) light rail system south from the downtown area to serve the Bayview-Hunter Point community, San Francisco, San Francisco County. The HPSR is being forwarded for our review as part of the preparation of a Draft Environmental Impact Statement/Environmental Impact Report (DEIS/EIR) that is considering three alternatives for the MUNI light rail project. No formal decision regarding the preferred alternative has been forwarded by Federal Transportation Administration (FTA). Details of the alternatives are located on Pages iii and iv of the HPSR.

You are seeking our comments on your determination of the eligibility of 165 properties located within the project Area of Potential Effects (APE) for inclusion on the National Register of Historic Places (NRHP) in accordance with 36 CFR 800, regulations implementing Section 106 of the National Historic Preservation Act. Among these properties are 60 properties that were previously determined to be eligible for inclusion on the NRHP and three properties that were previously determined to be ineligible for the NRHP. Two of these properties have been re-evaluated for changes in their NRHP status. These two properties were:

- o The H.L. Nishkian Bridge located over Islais Creek on Third Street (considered ineligible for the NRHP in the 1983 Caltrans Bridge Survey)
- o 216 Stockton Street (determined as appearing eligible - 3S)

Our review of the HPSR leads us to concur with your determination that the H.L. Nishkian Bridge may be eligible for the NRHP once it reaches 50 years of age in the year 2000. As such, the property can be assumed as eligible only for the

purposes of this project and the future preferred alternative.

We also concur with your determination that 216 Stockton Street has indeed suffered a considerable loss of integrity due to extensive remodeling to its exterior facade and is therefore no longer eligible for inclusion on the NRHP under any of the criteria established by 36 CFR 60.4.

Of the 75 remaining properties evaluated for this project, we concur with your determination that the following 39 properties are individually eligible for inclusion on the NRHP under criteria established by 36 CFR 60.4:

- o 17-29 3rd Street - Criterion C
- o 428 3rd Street - Criterion A
- o 500 3rd Street - Criteria A and C
- o 566-586 3rd Street - Criterion A
- o 500-504 3rd Street - Criteria A and C
- o 508-514 4th Street - Criteria A and C
- o 790 California Street - Criterion C
- o 233 Geary Street - Criteria A and C
- o 733-735 Harrison Street - Criterion C
- o 600 Stockton Street - Criteria A and C

The following three properties appear to be eligible for inclusion on the NRHP as potential contributing elements to potential historic districts that have not been evaluated:

- o 400 Sutter Street and 330-334 Stockton Street - "Retail Shopping District"/ Kearney, Market, Mason, Sutter Conservation District
- o Triangle District Street Lights - located on Kearney, Geary, Grant, Stockton, Post, and Sutter streets -

The following structures appear to be eligible for inclusion on the NRHP as potential contributing elements to the potential Nob Hill Historic District, a district that has not been evaluated:

- o 601 Stockton Street
- o 621 Stockton Street
- o 645 Stockton Street
- o 707 Stockton Street
- o 730 Stockton Street

The following structures appear to be eligible for inclusion on the NRHP as contributing elements to a Chinatown Historic District, a district that has not been evaluated:

- | | |
|---------------------------|-----------------------------|
| o 738 Stockton Street | o 913-917 Stockton Street |
| o 750-752 Stockton Street | o 933-949 Stockton Street |
| o 758-770 Stockton Street | o 1000-1032 Stockton Street |
| o 800-810 Stockton Street | o 1013-1017 Stockton Street |
| o 801-805 Stockton Street | o 1019-1027 Stockton Street |
| o 809-815 Stockton Street | o 1034-1038 Stockton Street |
| o 814-828 Stockton Street | o 1035-1055 Stockton Street |
| o 833-841 Stockton Street | o 1060-1064 Stockton Street |

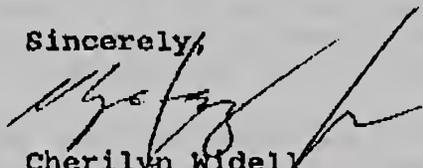
- o 850-868 Stockton Street
- o 901-907 Stockton Street
- o 1066-1068 Stockton Street
- o 1074-1076 Stockton Street

Regarding the information contained in the Archeological Information Investigations (AII) document submitted as part of the HPSR, we agree with your recommendation to conduct an archeological testing program for four prehistoric locations with a high sensitivity for containing NRHP-eligible resources that could be affected by the project. We also agree with your recommendation to conduct archeological monitoring during construction at seven prehistoric locations with medium sensitivity. While no historic archeology with high sensitivity were identified in the AII, four sites with moderate sensitivity were identified, as well as 14 sites with low sensitivity. We agree with your recommendation that one moderate sensitivity site located at the Crossover between Third and Fourth Streets be tested for subsurface prehistoric cultural deposits due to its proximity to a high sensitivity area. The remaining three moderate sensitivity sites will be subject to archeological monitoring.

In summary, FTA has done a good job in trying to identify prehistoric and historic archeological properties within the APES of the various project alternatives. However, FTA has not yet completed their identification efforts as required by Section 106. The archeological testing program outlined in the AII will need to be completed before the identification process can be considered done in accordance with 36 CFR 800.4.

Thank you again for seeking our comments on your project. If you have any questions, please contact staff historian Clarence Caesar at (916) 653-8902.

Sincerely,



Cheryl Widell
State Historic Preservation Officer

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942896
SACRAMENTO 94296-0001
(916) 653-6624
FAX: (916) 653-9824



SEP - 8 1998

September 3, 1998

REPLY TO: FTA980703A

Leslie T. Rogers, Regional Administrator
Federal Transit Administration
Region IX
201 Mission Street, Suite 220
SAN FRANCISCO CA 94105-1839

Re: MUNI Light Rail EIS/EIR Finding of No Adverse Effect Report,
San Francisco, San Francisco County.

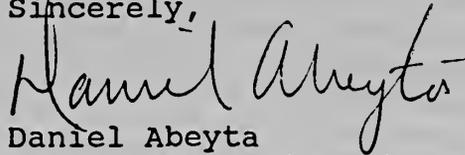
Dear Mr. Rogers:

Thank you for submitting to our office your June 30, 1998 letter and Draft Environmental Impact Statement/Draft Environmental Impact Report Finding of No Adverse Effect (DEIS/DEIR FONAE) regarding the proposed MUNI Light Rail extension project in the City of San Francisco, San Francisco County. The proposed project will involve the extension of an existing light rail system south from the downtown area to serve the Bayview-Hunter's Point residential and business community. The DEIS/DEIR FONAE was prepared to document findings regarding the presence of National Register of Historic Places (NRHP) listed and NRHP eligible properties in the project Area of Potential Effect (APE) and to apply the Criteria of Effect and Adverse Effect to the project as set forth in 36 CFR 800.9.

You are seeking our comments on your determination of the effects the proposed project will have on historic properties located within the project APE in accordance with 36 CFR 800, regulations implementing Section 106 of the National Historic Preservation Act. In light of the scope of the proposed project, as described in the DEIS/DEIR FONAE, and its inclusion of a possible alternative that includes a new Central Subway north of Brannan Street, we recommend that the Federal Transit Administration (FTA) begin the development of a Programmatic Agreement (PA) that would also cover the possible effects of the entire project on potential subsurface archeological deposits located within the project APE. The desired PA should provide guidance for the FTA on the treatment of any potentially significant archeological resources that may be encountered during construction of a subsurface component of the rail system. We are enclosing for your review a copy of the 1996 Memorandum of Agreement regarding the restoration of the Embarcadero Freeway and the Route 480 Terminal Separation project to assist you conceptually in your development of a PA.

Thank you again for seeking our comments on your project.
If you have any questions, please contact staff historian
Clarence Caesar at (916) 653-8902.

Sincerely,

A handwritten signature in cursive script that reads "Daniel Abeyta". The signature is written in dark ink and is positioned above the typed name.

Daniel Abeyta
Acting State Historic Preservation Officer

Enclosure

MEMORANDUM OF AGREEMENT
 BETWEEN THE FEDERAL HIGHWAY ADMINISTRATION,
 THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER, AND
 ADVISORY COUNCIL ON HISTORIC PRESERVATION
 FOR THE CONSTRUCTION OF IMPROVEMENTS TO THE
 EMBARCADERO ROADWAY AND OTHER LOCAL STREETS,
 TRANSIT IMPROVEMENTS AND RAMPS,
 IN LIEU OF RESTORING THE EMBARCADERO FREEWAY AND
 ROUTE 480 TERMINAL SEPARATION DAMAGED BY THE
 LOMA PRIETA EARTHQUAKE
 SAN FRANCISCO, CALIFORNIA

WHEREAS, the Federal Highway Administration (FHWA) has determined that the construction of improvements to the Embarcadero Roadway and other local streets, freeway ramps, and transit alternative to restoration of the Loma Prieta damaged Embarcadero Freeway and Terminal Separation Structure on route 480 in San Francisco, California (the Undertaking) may affect archaeological resources eligible for inclusion in the National Register of Historic Places (NRHP), and has consulted with the California State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (Council) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the Historic Preservation Act (16 U.S.C. 470f); and

WHEREAS, upon full execution of this Memorandum of Agreement (Agreement), the Memorandum of Agreement executed on February 24, 1992 for the Terminal Separation Rebuild shall become null and void and shall be replaced by this Agreement; and

WHEREAS, the California Department of Transportation (Caltrans) and the Department of Public Works of the City and County of San Francisco (the City), who will administer the Undertaking under the authority of FHWA, participated in this consultation and have been invited to concur in this Agreement; and

WHEREAS, the signatories agree that any archaeological resources found during construction that are determined eligible for inclusion in the NRHP will be important primarily for their data recovery potential and would not warrant preservation in place;

NOW, THEREFORE, the FHWA, the SHPO, and the Council agree that the Undertaking shall be implemented in accordance with the following stipulations in order to take into account the effects of the Undertaking on archaeological resources:

Stipulations

FHWA shall ensure that the following stipulations are carried out

I. Treatment Plan

A. Supplemental archival research will be completed by a consultant retained by the City in order to obtain adequate information for the development of the historic context and prediction of types of historic archaeological properties that may be present within the Undertaking's Area of Potential Effects (APE). This supplemental research will augment and complete the historic context and type of property information that was developed in the Archaeological Research Design and Treatment Plan for SF-480 Terminal Separation

Rebuild, December 1993 (Praetzellis and Praetzellis) and in Archaeological Research Design and Treatment Plan for Alternatives to Replacement of the Embarcadero Freeway and the Terminal Separator Structure Project, January 19, 1996 (Randall L. Dean, Holman & Associates). The archival research will include, at a minimum, block and parcel-specific research using documents such as the U.S. Census, historic maps, city directories, and tax and real estate records.

B. The historic context and comprehensive Treatment Plan (Praetzellis and Praetzellis 1993) will be revised by a consultant retained by the City to include properties that may be located within the Undertaking's APE. The Revised Treatment Plan (RTP) will also incorporate procedures to be followed if prehistoric resources are encountered. The RTP will be consistent with the Secretary's Standards and Guidelines for Archaeological Documentation (48 FR 44734-37) and take into account the Council's publication, Treatment of Archaeological Properties: A Handbook (Advisory Council on Historic Preservation 1980), and California SHPO guidelines.

C. Upon completion in draft form, CALTRANS will submit the RTP to all other parties to this Agreement for a fifteen (15) working-day review period. CALTRANS will incorporate any comments received during this review period into the final RTP. Failure of any party to comment within the review period shall not preclude CALTRANS from assuming that party's concurrence with the Draft RTP.

II. Implementation of the RTP

A. If at any time during implementation of the RTP or of the Undertaking, archeological resources are encountered which CALTRANS, in consultation with the City, determines do not possess enough integrity to qualify for inclusion in the NRHP, CALTRANS will promptly notify FHWA and the SHPO of its determination and at its discretion, may terminate any further consideration of such resources.

B. If at any time during implementation of the RTP or of the Undertaking, archeological resources are encountered which CALTRANS, in consultation with the City, determines possess integrity, CALTRANS will evaluate the resources, in consultation with the City, using the NRHP Criteria established in 36 CFR 60.4 and as applicable, the evaluation guidelines established in the RTP. CALTRANS will promptly notify FHWA and the SHPO about the results of this evaluation. In a manner consistent with the RTP, CALTRANS will integrate the identification, evaluation and treatment phases for any resources which it determines are eligible for inclusion in the NRHP. Resources determined by the City, and its consultant with concurrence by CALTRANS, to be worthy of retention/curation shall be placed with an appropriate local repository if feasible.

C. Upon completion, all reports resulting from implementation of the RTP and from the treatment of resources not specifically addressed in the RTP will be submitted in draft form by CALTRANS to FHWA and SHPO for a review period not to exceed fifteen (15) working days. Any comments received during this time frame will be incorporated into final reports by CALTRANS. CALTRANS will ensure that all reports are responsive to the "Secretary's Standards and Guidelines for Archaeological Documentation" (48 FR 44734-37) and to relevant SHPO publications. Upon completion, copies of all final reports will be provided to the SHPO, the ACHP, FHWA and others as identified in the RTP.

III. Professional Qualifications

All activities regarding history and archaeology that are carried out pursuant to this Agreement shall be carried out by or under the direct supervision of persons meeting at a minimum the Secretary of Interior's professional qualification standards (48 FR 44738-9) in these disciplines.

IV. Amendment or Addendum to this Agreement

Any party to this Agreement may request that it be amended or recommend an addendum, whereupon the parties shall consult to consider such amendment or addendum. 36 CFR 800.5(a) shall govern consideration and execution of any amendment or addendum.

V. Dispute Resolution Among Consulting Parties

Unless otherwise specified in this Agreement, should any party object within thirty (30) days to actions pursuant to this Agreement, FHWA shall consult with the objecting party to resolve the objection. If FHWA determines that the objections cannot be resolved, FHWA shall forward all documentation relevant to the dispute to the Council. Within thirty (30) days after receipt of all pertinent documentation, the Council will either:

- a. provide FHWA with recommendations, which FHWA will take into account in reaching a final decision regarding the dispute; or
- b. notify FHWA that it will comment pursuant to 36 CFR Part 800.6(b), and proceed to comment. Any Council comment provided in response to such a request will be taken into account by FHWA in accordance with 36 CFR Part 800.6(c)(2) with reference to the subject of dispute.

Any recommendation or comment provided by the Council will be understood to pertain only to the subject of the dispute; FHWA's responsibility to carry out all actions under this Agreement that are not the subject of the dispute will remain unchanged.

VI. Failure to Carry Out Terms of this MOA

Failure on the part of FHWA to ensure that the terms of this Agreement are carried out requires that FHWA again request the Council's comments. If FHWA cannot carry out the terms of this Agreement, it shall not sanction any action, or make any irreversible commitment, that would foreclose the Council's consideration of alternatives to avoid or mitigate adverse effects, until such time as the commenting process has been completed.

Execution of this Memorandum of Agreement and implementation of its terms evidence that the FHWA has afforded the Council an opportunity to comment on the Undertaking to construct improvements to the Embarcadero Roadway and other local streets, freeway ramps, and transit in lieu of restoration of the Loma Prieta damaged Embarcadero Freeway and Terminal Separation Structure on Route 480 in San Francisco, California and the Undertaking's effects on historic properties, and that the FHWA has taken into account the effects of the Undertaking on historic properties.

ADVISORY COUNCIL ON HISTORIC PRESERVATION

By: _____ Date: _____

Title: _____

FEDERAL HIGHWAY ADMINISTRATION

By: Bradley Keazer Date: 8-29-96
for Dave H. Densmore

Title: Division Administrator

CALIFORNIA STATE HISTORIC PRESERVATION OFFICER

By: Cherilyn Widell Date: 8/29/96

Title: State Historic Preservation Officer

Concur:

CALIFORNIA DEPARTMENT OF TRANSPORTATION

By: Harry G. Galati Date: 8/28/96

Title: Chief Deputy District Director

CITY AND COUNTY OF SAN FRANCISCO

By: Mark A. Primeau Date: 8/27/96

Title: Active Director, DPW
Mark A. Primeau
Director of Public Works



U.S. Department
of Transportation
**Federal Transit
Administration**

REGION IX
Arizona, California,
Hawaii, Nevada, Guam

201 Mission Street
Suite 2210
San Francisco, CA 94105-1839
415-744-3133
415-744-2726 (fax)

Mr. Clarence Caesar, Historian
Office of Historic Preservation
P.O. Box 942896
Sacramento, CA 94296-0001

OCT 08 1998

Re: MUNI Third St. Light Rail EIS/EIR
Finding of No Adverse Effect Report
and Programmatic Agreement

Dear Mr. Caesar:

FTA submitted the Finding of No Adverse Effect Report to your office a little over three months ago for the Third Street Light Rail EIS/EIR. We are seeking your review and concurrence with this report in accordance with Section 106 of the National Historic Preservation Act of 1996, as amended and implementing regulations (36 CFR 800) to document findings regarding the presence of National Register of Historic Places (NRHP) listed and NRHP eligible properties in the Area of Potential Effect for the project.

The Finding of No Adverse Effect Report addressed three historic properties located within the APE for the Initial Operating Segment, including three bridges along the Third Street corridor for the light rail project. The three bridges include: the Islais Creek Bridge, the Fourth Street Bridge and the Third Street Bridge.

The Draft EIS/EIR, and technical studies, addressed the design options of light rail over the Third Street bridge and the Fourth Street bridge. On June 23, 1998 the San Francisco Public Transportation Commission selected the bi-directional design option over the Fourth Street bridge as the Locally Preferred Alternative, eliminating use of the Third Street bridge from consideration for the light rail project.

As the Finding of No Adverse Effect Report describes, both the Third Street bridge and the Fourth Street bridge are in need of seismic upgrade and rehabilitation. This structural work on the bridges is being designed by the San Francisco Department of Public Works as a separate project. Environmental review of the bridge improvements has been completed by Caltrans and FHWA and the City. A Finding of No Adverse Effect for the rehabilitation project for the Fourth Street bridge was concurred with by your office on May 13, 1997 (see attached copy).

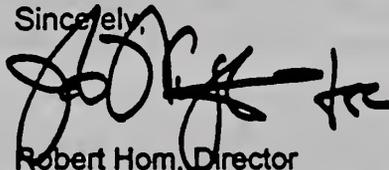
The Fourth Street bridge was originally designed to include rail use. The bridge's original design included tracks and stress loads for rail traffic on the bridge and an overhead electric wire for the trolley. Based on the engineering studies for the proposed Third Street Light Rail Project, no major modifications to the Fourth Street

bridge are required solely to carry a double track light rail. Some minor structural steel would need to be added directly under the rails to strengthen the bridge deck. There is not expected to be any strengthening of the bridge foundations required. Adding steel to the floor stringers to carry the point load of the light rail would not change the visible character of the bridge nor the design features that make it eligible for the NRHP under Criterion C. The 1997 FNAE determined that the bascule itself was the only contributing feature of the bridge under Criterion C. Nor would the proposed modifications alter the function of the bridge for vehicular traffic, and so would not alter its eligibility for the NRHP under Criterion A as an important link to the Port of San Francisco.

Similarly, the determination for the Islais Creek bridge reports that the proposed minor modifications required to the existing structure to strengthen it to accommodate the light rail project (the addition of tracks and overhead wires and the addition of steel directly under the rails) would not alter the contributing features or the historic function of the bridge for vehicular traffic. The Islais Creek bridge replaced an earlier bridge that accommodated trolley cars.

We hope that this clarifies the information previously submitted and enables your office to respond to the request for concurrence with the Finding of No Adverse Effect for the three historic bridges. We also request any comments that you might have on the Draft Programmatic Agreement that we submitted in response to your comments on the Draft EIS/EIR.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Horn", written over the word "Sincerely,".

Robert Horn, Director
Office of Planning & Program Development

Enclosure

cc: Brian Kalahar, San Francisco Planning Department



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION NINE
CALIFORNIA DIVISION
980 Ninth Street, Suite 400
Sacramento, CA 95814-2724

ARIZONA
CALIFORNIA
NEVADA
HAWAII
GUAM
AMERICAN SAMOA
N. MARIANA IS.

May 28, 1997

IN REPLY REFER TO
HA-CA
File #:04-SF-0-CR
Document #: P11586

Mr. Harry Yahata, District Director
Caltrans, District 4
P.O. Box 23660
Oakland, CA 94623-0660

Attention: Mr. Richard Monroe

Dear Mr. Yahata:

SUBJECT: FOURTH STREET BRIDGE-CITY OF SAN FRANCISCO

Enclosed is the May 13, 1997, letter from the State Historical Preservation Officer (SHPO) regarding the proposed rehabilitation project for the Fourth Street Bridge in the City of San Francisco.

The SHPO concurs in the Finding of No Adverse Effect for the proposed project. This concludes the Section 106 process.

Please contact Bill Wong at (916) 498-5042 if you have any questions.

Sincerely,

For
David H. Densmore
Division Administrator

Enclosure

Post-it® Fax Note	7671	Date	# of pages ▶ 2
To	MARILYN DUFFY	From	John Filice
Co./Dept	Duffey CO	Ca.	DPW/BOE
Phone #		Phone #	518-4011
Fax #	291-0820	Fax #	558A517

STATE OF CALIFORNIA — THE RESOURCES AGENCY

PETE WILSON, Governor

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942836
SACRAMENTO 94296-0001
(916) 653-6624
FAX: (916) 653-9824

REC'D FHMA



MAY 20 1997

May 13, 1997

FHWA970414B

David H. Densmore, Division Administrator
Federal Highway Administration
Region Nine, California Division
980 Ninth Street, Suite 400
SACRAMENTO CA 95814-2724

Re: Determination of Effect - Fourth Street Bridge
Rehabilitation Project, San Francisco, San Francisco County.

Dear Mr. Densmore:

Thank you for submitting to our office your April 3, 1997 letter and Finding of No Adverse Effect (FONAE) documentation for the proposed rehabilitation of the Fourth Street Bridge, a structure located in San Francisco, San Francisco County. The Fourth Street Bridge has been determined, by consensus, to be eligible for inclusion on the National Register of Historic Places (NRHP). The proposed project will involve basic rehabilitation of the bridge, including painting, repairing spalling concrete, repairing broken welds, replacing broken timber fenders, and other corrective work.

You are seeking our comments on your determination of the effects of the proposed project on historic resources in accordance with 36 CFR 800, regulations implementing Section 106 of the National Historic Preservation Act. Our review of the submitted FONAE leads us to concur with your determination that the proposed project, as described, will have no adverse effect on the Fourth Street Bridge. None of the proposed work will alter or change those characteristics that contribute to the bridge's historical integrity. We are pleased to note that the project will involve repairs and material replacement that will enhance the long-term preservation of the structure and its contributing elements.

Thank you again for seeking our comments on your project. If you have any questions, please contact staff historian Clarence Caesar at (916) 653-8902.

Sincerely,

Cheryl Widell
State Historic Preservation Officer

OFFICE OF HISTORIC PRESERVATION

DEPARTMENT OF PARKS AND RECREATION

P.O. BOX 942896

SACRAMENTO 94296-0001

(916) 653-6624

FAX: (916) 653-9824



October 9, 1998

REPLY TO:

FTA980703A

Robert Hom, Director
Office of Planning and Program Development
Federal Transit Administration
Region IX
201 Mission Street
SAN FRANCISCO CA 94105-1839

Re: MUNI Third Street Light Rail EIS/EIR Finding of No Adverse Effect Report, San Francisco, San Francisco County.

Dear Mr. Hom:

Thank you for submitting to our office your October 8, 1998 letter and supporting documentation regarding the Finding of No Adverse Effect (FONAE) documentation for the proposed extension of the San Francisco Municipal Railway (MUNI) Third Street Light Rail project in San Francisco, San Francisco County. The project will involve the construction an Initial Operating Segment (ISO) – Phase I consisting of a construction of a surface light rail system, and a potential New Central Subway – Phase II which will be a 1.75 mile subsurface tunnel that will begin north of King Street and extend to a terminus at Stockton and Clay Streets. The entire extension, if constructed, will serve the area running south from the downtown area to the Bayview-Hunters Point community. The Draft Environmental Impact Statement/Draft Environmental Impact Report (DEIS/DEIR) considered three alternatives for the MUNI light rail project. The San Francisco Public Transportation Commission (Commission) selected the bi-directional design option over the Fourth Street Bridge as the Locally Preferred Alternative for the Initial Operating Segment (IOS) – Phase I portion of the project. The Fourth Street Bridge has been determined, by consensus, to be eligible for inclusion on the National Register of Historic Places (NRHP). This eliminated from consideration the use of the Third Street Bridge as a directional alternative for the proposed project.

In accordance with 36 CFR 800, regulations implementing Section 106 of the National Historic Preservation Act, we have reviewed the DEIS/DEIR for information regarding the effects of the IOS - Phase I/New Central Subway - Phase II project on the 4th Street Bridge and on potential archaeological properties that may be affected as a result of a the potential New Central Subway. Funding for the second phase of the project, and its feasibility as a viable alternative, have not been established at this time. However, the 1

effect the New Central Subway could have on historic resources prompts us to request your consideration of the development of a programmatic agreement (PA), in consultation with our office, that would outline the process and procedures by which any potential historic properties would be treated in the event of their discovery. We have reviewed an initial draft of the PA and request that the following language be inserted into the text:

**PROGRAMMATIC AGREEMENT
AMONG THE FEDERAL TRANSIT ADMINISTRATION
THE CALIFORNIA HISTORIC PRESERVATION OFFICER
AND
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
FOR THE CONSTRUCTION OF THE THIRD STREET LIGHT RAIL/
NEW CENTRAL SUBWAY
SAN FRANCISCO, CALIFORNIA**

WHEREAS, the Federal Transit Administration (FTA) has determined that construction of the of the Third Street Light Rail Project [Initial Operating Segment (IOS) – Phase I/New Central Subway (NCS) – Phase II] (Undertaking) may have an effect on the 4th Street Bridge and may have an effect on archeological properties potentially eligible for inclusion on the National Register of Historic Places (NRHP), and has consulted with the California State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (Council) pursuant to 36 CFR 800.13 of the regulations implementing Section 106 of the National Historic Preservation Act (NHPA) (16 U.S.C. 470f); and

WHEREAS, the consulting parties to this Programmatic Agreement (PA) agree that although construction of the IOS-Phase I of the Undertaking will have an effect on the 4th Street Bridge, this effect will not be adverse; and

WHEREAS, the signatories agree that any archeological resources found during construction that are determined eligible for inclusion in the NRHP are likely to be important primarily for their data recovery potential and would be difficult to preserve in place; and

WHEREAS, upon full execution of this PA, the San Francisco Municipal Railway (MUNI), which has participated in this consultation and has been invited to concur in this PA, will administer the Undertaking under the authority of FTA; and

WHEREAS, the San Francisco Planning Department has participated in this consultation and has been invited to concur in the PA;

NOW, THEREFORE, the FTA, the SHPO, and the Council agree that upon FTA's decision to proceed with either phase of the Undertaking, the FTA shall ensure that the following stipulations are implemented as indicated below, in order to take into account the effects of the Undertaking on historic properties.

Stipulations

FTA shall ensure that the following stipulations are carried out:

The following stipulation applies only to the IOS phase of the Undertaking, if implemented:

I. IOS

The only historic property affected by the IOS phase of the Undertaking is the Fourth Street Bridge. The signatories agree that the proposed design of the IOS will not adversely affect the Bridge and that no further actions that would

take this effect into account are necessary.

The following stipulations apply only to the NCS phase of the Undertaking, if implemented:

II. Research Design Treatment Plan and Implementation

1. A comprehensive archival Research Design-Treatment Plan (RD-TP) shall be developed by a consultant retained by MUNI. Based on information described in the Final Environmental Impact Statement/Environmental Impact Report (FEIS/FEIR) 1998, and information in the Archeological Resources Investigation for the Third Street Light Rail Project, October 1997, by Jan M. Hupman and David Chavez, two recorded archaeological sites (CA-SFr-114 and CA-SFr-2) and seven sections of the New Central Subway require pre-construction subsurface testing. The RD-TP shall describe the specific field methodologies and testing locations within the Area of Potential Effect (APE) in accordance with *Treatment of Archaeological Properties: A Handbook* (ACHP 1990) and *Archaeology and Historic Preservation: the Secretary of the Interior's Standards and Guidelines* (48FR 44716-44742).
 - a. Supplemental archival research will be completed by MUNI's consultant in order to obtain adequate information for the development of the historic context and prediction of potentially historic archaeological properties that may be present within the APE of the NCS. This supplemental research will augment and complete the historic context and type of property information that was developed in those documents. The archival research will include, at a minimum, block and parcel-specific research using documents such as the U.S. Census, historic maps, city directories, and tax and real estate records.
 - b. The RD-TP describes the specific field methodologies to be utilized, including procedures to be followed if prehistoric archaeological resources are encountered. The RD-TP shall meet the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716-44740), take into account the Council's publication, *Treatment of Archaeological Properties: A Handbook* (Advisory Council on Historic Preservation 1980) as well as standards and guidelines established by the SHPO.
 - c. Upon completion in draft form, MUNI will submit the RD-TP to all other parties to this PA for a fifteen (15) working day review period. MUNI will incorporate any comments received during this review period into the final RD-TP. If any party fails to submit their comments within fifteen (15) working days or receipt, MUNI shall assume that party's concurrence with the draft RD-TP.
2. Archaeological monitoring during Construction of the New Central Subway shall be conducted for four locations:
 - On Stockton Street, between Washington and Clay Streets and between Clay and Sacramento Streets, where unidentified circa 1850 wood-framed structures once stood;
 - Third Street, between market and Mission Streets, where Happy Valley 49er Camp remains could be present; and
 - The crossover, between Third and Fourth Streets, immediately south of Harrison Street, where features, deposits, and artifacts associated with post-1850s commercial and residential use of the area may exist.
3. All activities regarding history and archaeology that are carried out pursuant to this section of the PA shall be carried out by or under the direct supervision of a person or persons who meet or exceed the "Secretary of the Interior's Professional Qualifications Standards" in these disciplines.
4. If at any time during implementation of the RD-TP or of the NCS, archaeological resources are encountered, which MUNI or its consultant, in consultation with the San Francisco Planning department, determines do not possess enough integrity to qualify for inclusion in the NRHP, FTA will promptly notify the SHPO of its determination and at its discretion, may terminate any further consideration of such resources.
5. If at any time during implementation of the NCS archaeological remains are encountered which MUNI and the San Francisco Planning department determine possess integrity, MUNI will evaluate the remains using the

NRHP Criteria of Eligibility established in the RD-TP. The identification, evaluation and treatment phases will be integrated into a single operation consistent with the RD-TP. When archaeological deposits are determined eligible, MUNI will notify FTA and SHPO of the determination and then proceed with treatment I accordance with the RD-TP. All archaeological material appropriate for curation as determined by MUNI and its consultant, in consultation with the SHPO, shall be placed with and appropriate local repository, if feasible.

6. Upon completion of field investigations, comprehensive technical reports resulting from implementation of the RD-TP and from the treatment of resources not specifically addressed in the RD-TP (if any are encountered) shall be prepared that integrate the important archaeological data recovered through excavation with the information gathered through archival research, and address relevant research considerations. MUNI shall ensure that all technical reports prepared pursuant to this PA are provided to the consulting parties and shall ensure that all such reports meet the published standards of the California Office of Historic Preservation, specifically *Preservation Planning Bulletin* Number 4(a), "Archaeological Resources Management Reports (ARMR): Recommended Contents and Format" (December 1989). Reports will be submitted in draft form by MUNI to FTA, the San Francisco Planning Department and the SHPO for a review period not to exceed fifteen (15) working days. Any comments received during this time frame will be incorporated into final reports by MUNI or its consultant. MUNI or its consultant will ensure that all reports are responsive to the "*Secretary of the Interior's Standards and Guidelines for Archaeological Documentation*" (48 FR 44734-37) and to relevant SHPO publications. Upon completion, copies of all final reports will be provided to the SHPO, the Council, FTA, and others identified in the RD-TP.

III. Confidentiality

Confidentiality regarding the nature and location of any archaeological sites in this PA shall be maintained on a "need to know" basis limited to appropriate personnel and consultants of the FTA, MUNI, the San Francisco Planning Department, the SHPO and the Council involved in the planning, reviewing and implementing of this PA consistent with Section 304 of the NHPA.

The following stipulations apply to both phases of the Undertaking, if implemented:

IV. Amendment or Addendum to this Agreement

Any party to the PA may request that it be amended or recommend an addendum, whereupon the parties shall consult to consider such amendment or addendum. Any amendment or addendum shall be executed in the same manner as the original PA.

V. Dispute Resolution

Unless otherwise specified in this PA, should any party object within thirty (30) days to actions pursuant to this PA, FTA shall consult with the objecting party to resolve the objection. If FTA determines that the objections cannot be resolved, FTA shall forward all documentation relevant to the dispute to the Council. Within thirty (30) days after receipt of all pertinent documentation, the Council will either:

- a) provide the FTA with recommendations, which FTA will take into account in reaching a final decision regarding the dispute; or
- b) Notify the FTA that it will comment pursuant to 36 CFR 800.6(b), and proceed to comment. Any Council comment provided in response to such a request will be taken into account by FTA in accordance with 36 CFR 800.6(c)(2) with reference to the subject of the dispute.

Any recommendation or comments provided by the Council will be understood to pertain only to the subject of the dispute; FTA's responsibility to carry out all actions under the PA that are not the subject of the dispute will remain unchanged.

VI. Public Objection

At any time during the implementation of the measures stipulated in this PA, should an objection to any such measure or its manner or implementation be raised by a member of the public, FTA shall take the objection into account and consult as needed with the objecting party, the SHPO and the Council to resolve the objection.

VII. Termination of this Programmatic Agreement

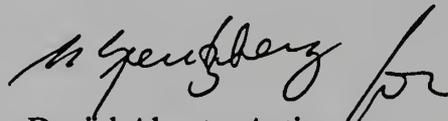
- (A) If the FTA determines that it cannot implement the terms of this PA or if the SHPO or the Council determines that the PA is not being properly implemented, the FTA, the SHPO or the Council may propose to the other consulting parties that this Programmatic Agreement be terminated.
- (B) The party proposing to terminate this PA shall notify all consulting parties to this explaining the reasons for termination and affording them at least 30 calendar days, but not more than 60 calendar days, to consult and seek alternatives to termination.
- (C) Should such consultation fail and the PA be terminated, the FTA shall either:
 - (1) Consult in accordance with Section 106 of the NHPA to develop a new PA; or
 - (2) Request the comments of the Council in accordance with Section 106 of the NHPA.

Execution of this Programmatic Agreement and implementation of its terms evidence that the FTA has afforded the Council an opportunity to comment on the Undertaking, and on the Undertaking's effects on historic properties, and that the FTA has taken into account the effects of the Undertaking on historic properties.

Please insert the aforementioned text into the body of your PA and re-submit to our office for review and/or signature.

Thank you again for seeking our comments on your project. If you have any questions, please contact staff historian Clarence Caesar at (916) 653-8902.

Sincerely,



Daniel Abeyta, Acting
State Historic Preservation Officer

PROGRAMMATIC AGREEMENT

Pursuant to Section 106 of the National Historic Preservation Act of 1966

The following Programmatic Agreement has been reviewed and tentatively agreed to by the Federal Transit Administration and the California State Historic Preservation Officer, two of the parties that will sign the document, and the San Francisco Municipal Railway and the San Francisco Planning Department. Subsequent review and agreement will be requested from the Advisory Council on Historic Preservation, the third signatory of the document. The Programmatic Agreement, which is presently being circulated for signature by all parties, will be signed prior to the Record of Decision for this project.

PROGRAMMATIC AGREEMENT
AMONG THE FEDERAL TRANSIT ADMINISTRATION,
THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER,
AND
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
FOR THE CONSTRUCTION OF THE THIRD STREET LIGHT RAIL/
NEW CENTRAL SUBWAY PROJECT
SAN FRANCISCO, CALIFORNIA

WHEREAS, the Federal Transit Administration (FTA) has determined that construction of the Third Street Light Rail Project [Initial Operating Segment (IOS)- Phase I and the New Central Subway (NCS)- Phase II] (Undertaking) may have an effect on the 4th Street Bridge and may have an effect on archaeological properties potentially eligible for inclusion on the National Register of Historic Places (NRHP), and has consulted with the California State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (Council) pursuant to 36 CFR Part 800.13 of the regulations implementing Section 106 of the National Historic Preservation Act (NHPA)(16 U.S.C. 470f); and

WHEREAS, the consulting parties to this Programmatic Agreement (PA) agree that construction of the IOS-Phase I of the Undertaking will not have an adverse effect on the historic character of the 4th Street Bridge; and

WHEREAS, the signatories agree that any archaeological resources found during construction of the Undertaking that are determined eligible by SHPO for inclusion in the NRHP are likely to be important primarily for their data recovery potential and would be difficult to preserve in place; and

WHEREAS, upon full execution of this PA, the San Francisco Municipal Railway (MUNI), which has participated in this consultation, will administer the Undertaking under the authority of FTA; and

WHEREAS, the San Francisco Planning Department has participated in this consultation in the PA, and whereas, MUNI and the San Francisco Planning Department have concurred in the terms and conditions of this PA;

NOW, THEREFORE, the FTA, the SHPO, and the Council agree that upon FTA's decision to proceed with either Phase of the Undertaking, the FTA shall ensure that the following stipulations are implemented, as indicated below, in order to take into account the effects of the Undertaking on historic properties.

Stipulations

FTA shall ensure that the following stipulations are carried out:

The following stipulation applies only to the IOS Phase of the Undertaking, if implemented;

I. Initial Operating Segment-IOS

The only historic property affected by the IOS Phase of the Undertaking is the Fourth Street Bridge. The signatories agree that the proposed design of the IOS will not adversely affect the Bridge and that no further actions that would take this effect into account are necessary.

Third Street Light Rail Project
Programmatic Agreement
November, 1998

The following stipulations apply only to the New Central Subway (NCS) Phase of the Undertaking, if implemented:

II. Research Design-Treatment Plan and Implementation

1. A comprehensive archival Research Design-Treatment Plan (RD-TP) shall be developed by a consultant retained by MUNI. Based on information described in the Final Environmental Impact Statement/Environmental Impact Report (FEIS/ FEIR) 1998, and information in the *Archaeological Resources Investigation for the Third Street Light Rail Project, October 1997*, by Jan M. Hupman and David Chavez, two recorded archaeological sites (CA-SFr-114 and CA-SFr-2) and seven sections of the New Central Subway require pre-construction subsurface testing for archaeological remnants. The RD-TP shall describe the specific field methodologies and testing locations within the Area of Potential Effect (APE) in accordance with *Treatment of Archaeological Properties: A Handbook (ACHP 1990)* and *Archaeology and Historic Preservation: the Secretary of the Interior's Standards and Guidelines, (48 FR 44716-44742)*.
 - a. Supplemental archival research will be completed by MUNI's consultant in order to obtain adequate information for the development of the historic context and prediction of potentially historic archaeological properties that may be present within the APE of the NCS. This supplemental research will augment and complete the historic context and type of property information that was developed in these documents. The archival research will include, at a minimum, block and parcel-specific research using documents such as the U.S. Census, historic maps, City directories, and tax and real estate records.
 - b. The RD-TP will describe the specific field methodologies to be utilized, including procedures to be followed if prehistoric archaeological resources are encountered. The RD-TP shall meet the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716-44740), take into account the Council's publication, *Treatment of Archaeological Properties: A Handbook (Advisory Council on Historic Preservation 1980)* as well as standards and guidelines established by the SHPO.
 - c. Upon completion in draft form, MUNI will submit the RD-TP to all other parties to this PA for a fifteen (15) working day review period. MUNI will incorporate any comments received during this review period into the final RD-TP. In any party fails to submit their comments within fifteen (15) working days or receipt, MUNI shall assume that party's concurrence with the draft RD-TP.
2. Archaeological Monitoring during construction of the New Central Subway shall be conducted for four locations:
 - On Stockton Street, between Washington and Clay Streets, where unidentified circa 1850 wood-framed structures once stood;
 - On Stockton Street, between Clay and Sacramento Streets, where unidentified circa 1850 wood-framed structures once stood;
 - Third Street, between Market and Mission Streets, where Happy Valley 49er Camp remains could be present; and
 - The crossover, between Third and Fourth Streets, immediately south of Harrison Street, where features, deposits, and artifacts associated with post-1850s commercial and residential use of the area may exist.

3. All activities regarding history and archaeology that are carried out pursuant to this section of the PA shall be carried out by or under the direct supervision of a person or persons who meet or exceed the "Secretary of Interior's Professional Qualification Standards" in these disciplines.
4. If at any time during implementation of the RD-TP or of the NCS, archaeological resources are encountered, which MUNI or its consultant, in consultation with the San Francisco Planning Department, determines do not possess enough integrity to qualify for inclusion in the NRHP, FTA will promptly notify the SHPO of its determination and at its discretion, may terminate any further consideration of such resources.
5. If at any time during implementation of the NCS archaeological remains are encountered which MUNI and the San Francisco Planning Department determine possess integrity, MUNI will evaluate the remains using the NRHP Criteria of Eligibility established in the RD-TP. The identification, evaluation and treatment Phases will be integrated into a single operation consistent with the RD-TP. When archaeological deposits are determined eligible, MUNI will notify FTA and the SHPO of the determination and then proceed with treatment in accordance with the RD-TP. All archaeological material appropriate for curation as determined by MUNI and its consultant, in consultation with the SHPO, shall be placed with an appropriate local repository, if feasible.
6. Upon completion of field investigations, comprehensive technical reports resulting from implementation of the RD-TP and from the treatment of resources not specifically addressed in the RD-TP (if any are encountered) shall be prepared that integrate the important archaeological data recovered through excavation with the information gathered through archival research, and address relevant research considerations. MUNI shall ensure that all technical reports prepared pursuant to this PA are provided to the consulting parties and shall ensure that all such reports meet the published standards of the California Office of Historic Preservation, specifically *Preservation Planning Bulletin* Number 4(a), "Archaeological Resources Management Reports (ARMR): Recommended Contents and Format" (October 1989). Reports will be submitted in draft form by MUNI to FTA, the San Francisco Planning Department, and the SHPO for a review period not to exceed fifteen (15) working days. Any comments received during this time frame will be incorporated into final reports by MUNI or its consultant. MUNI or its consultant will ensure that all reports are responsive to the "Secretary of the Interior's Standards and Guidelines for Archaeological Documentation" (48 FR 44734-37) and to relevant SHPO guidelines. Upon completion, copies of all final reports will be provided to the SHPO, the Council, FTA, and others identified in the RD-TP.

III. Confidentiality

Confidentiality regarding the nature and location of any archaeological sites in this PA shall be maintained on a "need to know" basis limited to appropriate personnel and consultants of the FTA, MUNI, the San Francisco Planning Department, the SHPO and the Council involved in the planning, reviewing and implementing of this PA consistent with Section 304 of the NHPA.

The following stipulations apply to both Phases of the Undertaking, if implemented:

IV. Amendment or Addendum to this Agreement

Any party to the PA may request that it be amended or recommend an addendum, whereupon the parties shall consult to consider such amendment or addendum. Any amendment or addendum shall be executed in the same manner at the original PA.

V. Dispute Resolution

Unless otherwise specified in this PA, should any party object within thirty (30) days to actions pursuant to this PA, FTA shall consult with the objecting party to resolve the objection. If FTA determines that the objections cannot be resolved, FTA shall forward all documentation relevant to the dispute to the Council. Within thirty (30) days after receipt of all pertinent documentation, the Council will either:

- a) provide FTA with recommendations, which FTA will take into account in reaching a final decision regarding the dispute; or
- b) notify FTA that it will comment pursuant to 36 CFR Part 800.6(b), and proceed to comment. Any Council comment provided in response to such a request will be taken into account by FTA in accordance with 36 CFR Part 800.6(c)(2) with reference to the subject dispute.

Any recommendation or comments provided by the Council will be understood to pertain only to the subject of the dispute; FTA's responsibility to carry out all actions under the PA that are not the subject of the dispute will remain unchanged.

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At any time during the implementation of the measures stipulated in this PA, should an objection to any such measure or its manner or implementation be raised by a member of the public, FTA shall take the objection into account and consult as needed with the objecting party, the SHPO and the Council to resolve the objection.

VII. Termination of this Programmatic Agreement

- a) If the FTA determines that it cannot implement the terms of this PA or if the SHPO or the Council determines that the PA is not being properly implemented, the FTA, the SHPO or the Council may propose to the other consulting parties that this Programmatic Agreement be terminated.
- b) The party proposing to terminate this PA shall notify all consulting parties to this explaining the reasons for termination and affording them at least 30 calendar days, but not more than 60 calendar days, to consult and seek alternatives to termination.
- c) Should such consultation fail and the PA be terminated, the FTA shall either:
 - 1). Consult in accordance with Section 106 of the NHPA to develop a new PA; or
 - 2). Request the comments of the Council in accordance with Section 106 of the NHPA.

Execution of this Programmatic Agreement and implementation of its terms evidence that the FTA has afforded the Council an opportunity to comment on the Undertaking, and on the Undertaking's effects on historic properties, and that the FTA has taken into account the effects of the Undertaking on historic properties.

ADVISORY COUNCIL ON HISTORIC PRESERVATION

By: _____ Date: _____

Title: _____

FEDERAL TRANSIT ADMINISTRATION

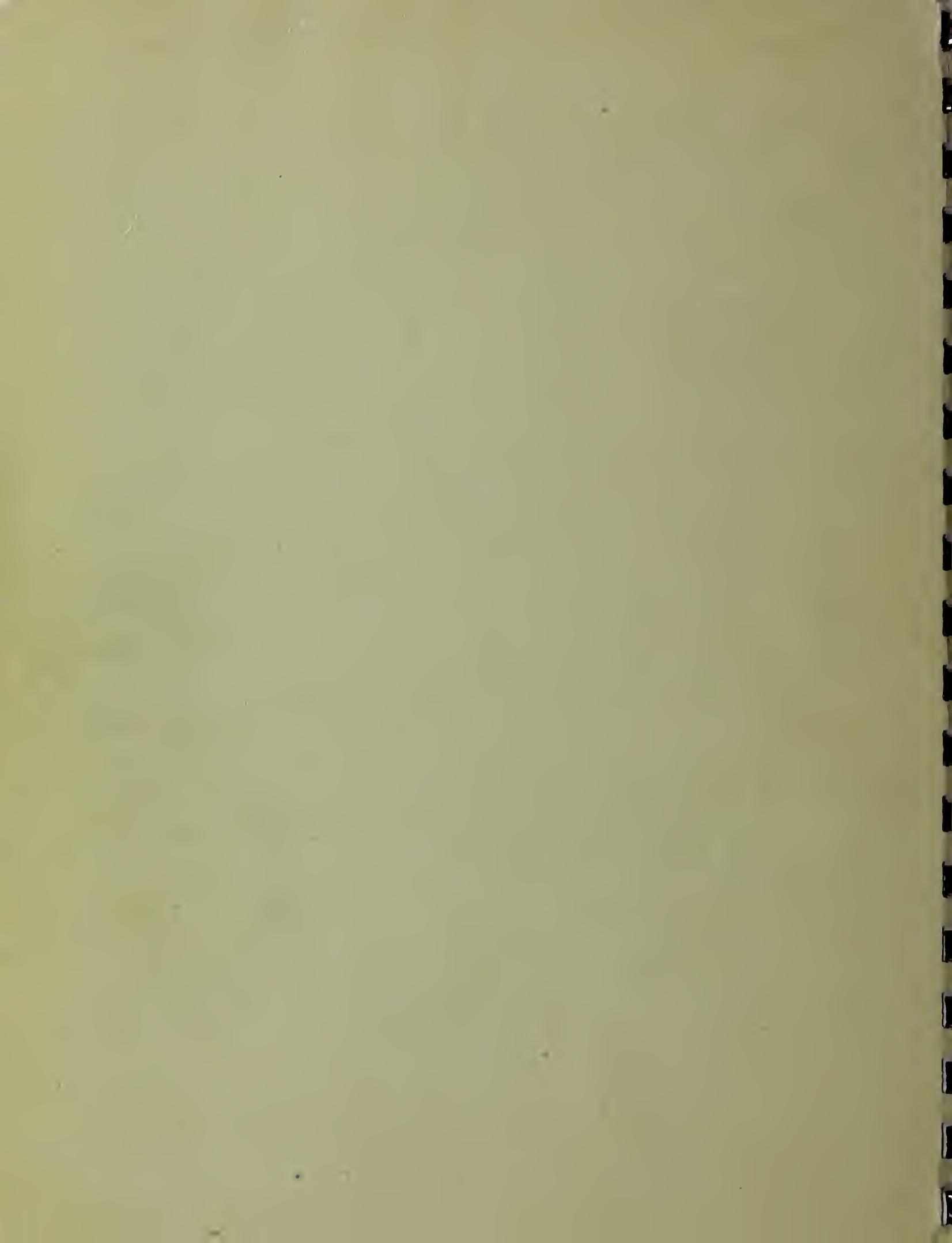
By: _____ Date: _____

Title: _____

CALIFORNIA STATE HISTORIC PRESERVATION OFFICER

By: _____ Date: _____

Title: _____



THIRD
STREET
LIGHT
RAIL
PROJECT

VOLUME 2

Response to Comments

FINAL ENVIRONMENTAL
IMPACT STATEMENT

FINAL ENVIRONMENTAL
IMPACT REPORT

Federal Transit Administration - U.S. DOT
City and County of San Francisco
Planning Department

November 1998

State Clearinghouse #96102097

SF Case File No. 96.281E

DOCUMENTS DEPT.

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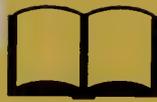
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THIRD
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LIGHT
RAIL
PROJECT

Response to Comments

FINAL ENVIRONMENTAL
IMPACT STATEMENT

FINAL ENVIRONMENTAL
IMPACT REPORT

Federal Transit Administration - U.S. DOT
City and County of San Francisco
Planning Department

November 1998

State Clearinghouse #96102097

SF Case File No. 96.281E

⇒ **ICF KAISER**

ICF Kaiser Engineers, Inc.

in association with

The Duffey Company • MIG
Korve Engineering • Pittman & Hames
Dames & Moore • AGS • Finger & Moy



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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

#1

May 7, 1998

RECEIVED
MAY 11 1998
ENVIRONMENTAL PROTECTION AGENCY
SAN FRANCISCO OFFICE

Mr. Bob Hom
Director, Office of Program Development
United States Department of Transportation
Federal Transit Administration, Region IX
201 Mission Street, Suite 2210
San Francisco, California 94105

Dear Mr. Hom:

The United States Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement/Report (DEIS/R) for the **Third Street Light Rail Project, City and County of San Francisco, California**. Our comments are provided pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality's Regulations for Implementing NEPA (40 CFR 1500-1508), and Section 309 of the Clean Air Act. On January 13, 1997 EPA provided written comments to the San Francisco Municipal Railway (MUNI), with a copy to you, on the Notice of Intent distributed for the scoping of the DEIS/R.

The United States Federal Transit Administration (FTA), in cooperation with the MUNI, proposes to construct a new light rail transit (LRT) line into the southeastern quadrant of the City and County of San Francisco. The DEIS/R analyzes the potential environmental impacts of three alternatives: the No Project alternative, the No Build/Transportation System Management (TSM) alternative, and the LRT alternative. The No Project alternative would perpetuate existing conditions in the Third Street corridor; the No Build/TSM alternative would meet increased transit demand via expanded bus service; and the Light Rail alternative would extend MUNI light rail services in two phases. The Initial Operating Segment (IOS) would extend light rail from King Street to the Bayshore Caltrain Station via Third, Fourth, and Bayshore Boulevard. A later Central Subway phase would extend service northward to Chinatown via Third/Fourth, Geary and Stockton Streets.

Based on our review of the DEIS/R, we have assigned a rating of **LO, Lack of Objections**. Our initial comment is that the proposed project is of great merit, in that it would serve to reduce vehicle miles travelled (VMT) and air pollution emissions in an area slated for major redevelopment growth in the next 20 years. Although we have a lack of objections with the proposed action, we would like to offer the following comments in regards to following issues discussed within the DEIS/R: Environmental Justice and Intermodal Transportation.

1-1

The EPA commends you for your efforts concerning the environmental justice analysis presented within Section 5.3.2 ENVIRONMENTAL JUSTICE CONSIDERATIONS. In particular, we are pleased with your attempts to reach a wide variety of ethnic groups via your public outreach program, and furthermore, we believe that this level of community participation satisfies one of the intents of Executive Order 12898, that is, to involve affected minority and low income communities in the project planning process. In keeping with this spirit, we suggest that the City and County of San Francisco further involves the affected neighbourhoods by offering employment opportunities and/or training for job opportunities that are made available during the construction and operation phases.

1-2

Section 3.2.7 BICYCLES, indicates that the potential for conflicts between motorists and bicyclists could increase due to the proposed reduction in the number of existing lanes, thereby creating more competition for the remaining limited space between bicycles, autos, and trucks. As partial mitigation for this impact, the DEIS/R recommends that the MUNI consider establishing a policy providing for the accommodation of bicycles on the Third Street light rail vehicles. The EPA concurs with the establishment of such a policy and in a way that facilitates this intermodal transportation option (i.e., provide bike storage on all trains rather than limiting potential rider ship by stipulating the number of allowed bicyclists per train, hours of use, etc.).

1-3

We appreciate the opportunity to comment on the DEIS/R. Please send one copy of the Final EIS/R to my attention (mailcode: CMD2) when it is filed with the EPA's Washington, D.C. office. In the meantime, should you have any questions, please call me at (415) 744-1584 or Mark Bartholomew of my staff at (415) 744-1522.

Sincerely,



David Farrel, Chief
Federal Activities Office

cc: Hillary Gitelman, San Francisco Planning Department, San Francisco

3rdlrt.let #003066

**THIRD STREET LIGHT RAIL PROJECT
RESPONSES TO COMMENTS**

A. AGENCIES

Comment Letter 1

**David Farrel, Chief
Federal Activities Office
United States Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, CA 94105-3901**

Response 1-1

Comment noted. Based on the review of the Draft Environmental Impact Statement/Draft Environmental Impact Report (DEIS/DEIR), the US Environmental Protection (EPA) has assigned a rating of "LO", Lack of Objections with the proposed action.

Response 1-2

Comment noted. The City and County of San Francisco (City) has continued to involve the community in the project decision process. For example, subsequent to the release of the DEIS/DEIR for public review, a series of workshops were held in affected neighborhoods and presentations on the project decision were made to numerous community organizations. Since environmental scoping in Fall 1996, MUNI staff has made presentations at 121 public meetings.

Response 1-3

Comment noted. The Municipal Railway's (MUNI) Service Planning Department has agreed to study the possibility of allowing bicycles on light rail vehicles.

U.S. Department
of Transportation

United States
Coast Guard



Commander (Pow-2)
Eleventh Coast Guard District

Coast Guard Island
Alameda, CA 94501-5100
Staff Symbol: (Pow-2)
Phone: (510) 437-3514
FAX: (510) 437-5836

#2

16593
Channel Street (0.0)
Channel Street (0.2)
Ser: 346-98
May 19, 1998

Mr. Brian J. Kalahar
Environmental Planner
San Francisco Planning Department
1600 Mission St. 5th Floor
San Francisco, CA 94103-2414

Dear Mr. Kalahar:

Thank you for providing us with a copy of the Draft Environmental Impact Statement/Draft Environmental Impact Report (DEIS/DEIR) dated March 23, 1998 for the 3rd Street Light Rail Project in the City and County of San Francisco. We appreciate the document's thorough treatment of the new Giants stadium near the 3rd and 4th Street bridges over Mission Creek. The detail provided is sufficient for us to limit our comments to those sections of the document which may directly impact marine traffic on Mission Creek.

Please review our letter to the San Francisco Giants regarding our concerns about drawbridge operation (encl. 1). With good communications between bridge operators and the ball park there should be no need to change the regulations governing operation of the two Mission Creek drawbridges.

Your document acknowledges on pages S-21 and 4-16 that there could be 40,000 baseball fans, and advises on page 3-46 that traffic may be problematic before and after Giants games. Section 2.1.3 of your document also advises of potential increased conflicts between pedestrians, vehicles and light rail before and after baseball games. I am hopeful that your project will actually alleviate congestion across the Mission Creek bridges at such times. I believe the the following measures under consideration for your project could minimize transportation conflicts at the Third and Fourth Street Bridges:

- a. Construction of a couplet as addressed on pages S-34 and 2-30 of the DEIS/DEIR, which would incorporate light rail on both bridges. Such a configuration could enable light rail to travel in and out of the ball park area more quickly.
- b. Standard signalization, signing and pavement markings addressed on page 3-47 to insure that motorists are aware of mixed flow operations, and to enhance traffic flow in the vicinity of the 3rd and 4th Street Bridges.
- c. Restricting parking in the vicinity of 3rd and 4th Streets near Mission Creek, as well as between Brannan and Townsend Streets, as discussed on pages 3-65 and 3-67, could

2-1

2-2

May 19, 1998

permit wider sidewalks which would facilitate pedestrian ingress and egress from the ball park.

My remaining comments are primarily editorial in nature:

- a. Please also identify the 3rd Street Bridge over Mission Creek on page 4-48 as historical. 2-3
- b. Page 2-74 please remove the first listing for USCG approvals or permits "Navigable Water Crossing (Bridge Permits)". The Coast Guard plans to authorize any needed work on the bridges under 33 CFR 115.40, repairs-in-kind, since navigation clearances would not change, and the bridge design and appearance would remain essentially unaltered. 2-4
- c. Please note on Page 2-74 that it is the U.S. Army Corps of Engineers, and not the U.S. Coast Guard who would grant a permit for the underwater cable. 2-5
- d. Figure 3-4 shows the Bay Trail as a new crossing over Mission Creek. I believe you intended to place this crossing along either the 3rd or 4th Street Bridges, not as a new bridge. A new bridge would require a Coast Guard bridge permit. 2-6
- e. I note in Chapter 9 that the Mission Creek Homeowners Association (MCHA) which you reference as "A small houseboat community...located along Mission Creek Channel" on page 4-24 has not been specifically listed as part of the Community Advisory Group (CAG) in Section 9-3. MCHA members almost always need drawbridge openings to gain access to, and egress from berthing via the Channel Street waterway. They should be included in any discussions or development that may potentially affect their access. 2-7

In closing, I also note your acknowledgment that Pier 80 nearer the Islais Creek (H. L. Nishkian) Bridge may, at some point, be accessed by a new rail bridge. I have no additional comments to offer regarding either the new rail bridge or the existing H.L. Nishkian Bridge.

Should you have any additional questions, please do not hesitate to contact me or Mr. Jerry Olmes, my project officer at (510) 437-3514.

Sincerely,


W. R. FILL

Chief, Bridge Section

U. S. Coast Guard

By direction of the District Commander

Encl: (1) Commander (pow-2) letter dated May 18, 1998

Copy: MCHA w/encl

SF Giants Mr. Felder w/encl

U.S. Department
of Transportation



United States
Coast Guard

Commander (Pow-2)
Eleventh Coast Guard District

Bldg. 50-6
Coast Guard Island
Alameda, CA 94501-5100
Phone: (510)437-3514
FAX: (510)437-5836

16593
Ser: Pow 078-98
Channel St. (0.0)
May 18, 1998

Attachment

San Francisco Giants
ATTN: Mr. Alfonso Felder
3-Com Park
San Francisco, CA 94124

Dear Mr. Felder:

Thank you for your February 2, 1998 response to my December 5, 1997 letter regarding operation of the 3rd and 4th Street Bridges over the China Basin Channel. On review of your letter, as well as review of the Ballpark EIR, I anticipate another meeting with you, the City and MCHA could resolve boater concerns—without changing the existing regulation, and without alternative moorings.

You advise that close coordination between the Giants and bridge operators should eliminate delays in most instances even during event periods. I believe prompt and reliable communication between the bridges and the ballpark would enable the bridges to accommodate all requests for openings within one hour—even before and after games. Good communication should allow the bridges an approximate 45 minute "blackout" period during the standard one hour advance notice immediately before and after the games during which they would not open (unless for emergency vessels. To reduce the demand on the bridges, and decrease impacts to fans, the MCHA has already offered to depart their Mission Creek moorings in groups at pre-arranged times (encl. 1).

These joint efforts by all parties to minimize impacts should allow the majority of persons to enter and exit the area following games - the Ballpark EIR (page IV.216) stated that 72% to 82% would leave after the game within one hour. Openings up to one hour before a scheduled start would similarly impact few arriving fans.

Regarding moorings, I need to qualify our December 5 letter - we would not require them unless waiting for an opening compromised vessel safety. One potential danger is possible collisions between returning MCHA vessels waiting for the bridges—with shuttle ferries proposed with the new Ballpark (encl. 2). Our meeting could explore whether sufficient area is available for waiting MCHA vessels without interference from shuttle ferries, especially during the "blackout" period. The meeting could also examine the status of the existing Pier 46B (presently used by T N' Tug N' Tow) and your ferry landing. Possibly, vessels waiting for the bridge could temporarily tie off to those moorings.

One final item in our December 5, 1997 letter, and the Ballpark EIR (page I.52) relates to concerts or other events at the facility. The SF Giants, as facility owners, would be ultimately responsible for setting up communications between the bridge and stadium, so that both overland and marine traffic can be safely accommodated at the bridge. We would be happy to discuss this also at our next meeting.

ENCLOSURE(1)

16593

May 18, 1998

Please let us know when you could arrange a meeting similar to the one Jerry Olmes of my staff attended on May 27, 1997 at the Mayor's office. That meeting was also attended by David Prowler, Dean Macris, Betty Boatright, Corinne Woods and Arjan Bok. Please do not hesitate to contact us at (510) 437-3514 if we might be able to answer any questions.

Sincerely,



W.R. TILL

Chief, Bridge Section

U.S. Coast Guard

By direction of the District Commander

Encl: (1) MCHA letter of February 17, 1998
(2) Army Corps of Engineers Application for Letter of Permission File 22980S of August 22, 1997

Copy: Mr. David Prowler, Special Assistant to the SF City Mayor's Office w/encls
Mancini-Mills ATTN Mr. Dean Macris w/encls
Ms. Betty Boatright, Mission Creek Harbor Association w/encls
Ms. Corinne Woods, Mission Creek Harbor Association w/encls
Mr. Arjan Bok, Mission Creek Harbor Association w/encls

Comment Letter 2

W.R. Till, Chief
Bridge Section
US Coast Guard
US Department of Transportation
Coast Guard Island
Alameda, CA 94501-5100

Response 2-1

As noted on pages 3-45 and 3-46 of the DEIS/DEIR, future year 2015 traffic conditions near both Mission Creek bridges would be congested during normal weekday peak periods. Before and after major events at the new Giants ballpark, congested conditions would also be expected, especially under Option 2 (light rail on both bridges) due to the reduced number of northbound travel lanes along Third Street. The DEIS/DEIR did not assess pre- and post-event traffic conditions for the new Giants ballpark at China Basin nor did it evaluate future pre- and post-event traffic conditions assuming a condition without light rail. However, due to the person-carrying capacity of light rail vehicles, it is likely that provision of the Third Street Light Rail Project (Project) would alleviate traffic congestion across the Mission Creek bridges before and after major events, with Option 1 (light rail on the Fourth Street bridge only) providing more congestion relief than Option 2. On June 23, 1998, the Public Transportation Commission (PTC) selected the Fourth Street bridge for a bi-directional crossing of Mission Creek as part of the Locally Preferred Alternative.

Response 2-2

As noted in the "Staff Initiated Changes," the Public Transportation Commission selected the Fourth Street bridge for a bi-directional crossing of Mission Creek by the light rail line. As part of the light rail project, standard signalization, signing and pavement markings would be installed to insure that motorists are aware of mixed flow operations across the bridge. In addition, parking would be restricted in the vicinity of the Fourth Street bridge, as well as between Brannan and Townsend Streets, as discussed on pages 3-65 and 3-67 of the DEIS/DEIR.

Response 2-3

The DEIS/DEIR text on page 4-48, under Section 4.5.5, Segment 5 – 16th Street to King Street, is revised to add the historic Third Street bridge as noted.

To the north, the Mission Creek lift bridges, including the historic Third Street and Fourth Street bridges, frame the China Basin building.

Responses 2-4 and 2-5

Table 2-14, Agency Approvals, on page 2-74 of the DEIS/DEIR is revised to delete the Bridge Permit for Navigable Water Crossing listed for the Coast Guard, and replace the US Coast Guard with the US Army Corps of Engineers as the agency responsible for permitting an underwater cable for Mission and Islais Creeks.

TABLE 2-14

**AGENCY APPROVALS
(Revised July 24, 1998)**

Agency	Approval or Permit
US Dept. of Transportation - US Coast Guard	Navigable Water Crossing (Bridge Permits) Navigable Waterway Crossing Approval
US Coast Guard US Army Corps of Engineers State Fish and Game Department US Fish and Wildlife Service	Nationwide permit for underwater cable (Mission and Islais Creeks)

Response 2-6

Figure 3-4 in the DEIS/DEIR incorrectly showed the Bay Trail crossing the Mission Creek Channel between the Third and Fourth Street bridges. Figure 3-4 is revised to indicate the Bay Trail crossing the Third Street bridge, as discussed on page 3-24 of the DEIS/DEIR.

Response 2-7

Comment noted. MUNI staff will maintain contact with representatives from the Mission Creek Homeowners Association as plans for design, construction and operation across Mission Creek move forward.



J96-082.100a 3rd St. (7/21/98)

LEGEND	
	Bike Lane
	Shared Roadway
	Travel in Both Directions
	Travel in One Direction
	Bay Trail



FIGURE 3-4

**BICYCLE ROUTES AND BAY TRAIL
IN THE THIRD STREET CORRIDOR**

Third Street Light Rail EIS/EIR



United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

#3

ER-98/196

MAY 22 1998

MAY 29 1998

SF PLANNING DEPT.

Mr. Leslie T. Rogers
Regional Administrator
Federal Transit Administration
201 Mission Street, Suite 2210
San Francisco, California 94105-1831

Dear Mr. Rogers:

This is in response to the request for the Department of the Interior's comments on the Draft Environmental Impact Statement (DEIS) for the construction of the Third Street Light Rail Project, San Francisco County, California.

We concur that there is no prudent and feasible alternative to the proposed project, if project objectives are to be met. However, we do not believe that all possible planning has been done to minimize harm to historic and archeological resources which may be affected by the proposed project.

In her letter of February 17, 1998, the State Historic Preservation Officer (SHPO) indicated that the Federal Transit Administration has not yet completed the identification of prehistoric and historic archeological properties in the project area, as required under Section 106 of the National Historic Preservation Act of 1966, as amended. The archeological testing program outlined in the Archeological Information Investigation should be completed before the identification process can be considered done. Moreover, a Memorandum of Agreement (MOA) should be prepared if the proposed project would impact any historic and/or archeological properties, in compliance with Section 106. A signed copy of the MOA, if one is found necessary, should be included in the Final EIS.

We reserve the right to provide further comments on the proposed project when the Final EIS is circulated for review and comment.

We appreciate the opportunity to provide these comments.

Sincerely,

Willie R. Taylor
Director, Office of Environmental
Policy and Compliance

cc: Ms. Hillary E. Gitelman
Environmental Review Officer
San Francisco Planning Department
1660 Mission Street, 5th Floor
San Francisco, California 94103-2414

3-1

3-2

Comment Letter 3

Willie R. Taylor, Director
Office of Environmental Policy and Compliance
US Department of the Interior
Office of the Secretary
Washington, DC 20240

Response 3-1

A detailed record search and field reconnaissance was completed for the project by qualified architectural historians and an archeologist. A Historic Architectural Survey Report, an Archaeological Resources Report, and a Historic Properties Survey Report were submitted to the State Office of Historic Preservation (SHPO) prior to the publication and review of the DEIS/DEIR. The Third Street Light Rail Project's "Finding of No Adverse Effect", which was submitted by MUNI and FTA to SHPO, did not identify potentially adverse effects to any property. SHPO's response is included in Volume I, Appendix F of the Final EIS/EIR.

Response 3-2

As described on pages 5-28 and 5-29 of the DEIS/DEIR, no potential impacts to Prehistoric or Historic Archaeological Resources have been identified for the Initial Operating Segment of the proposed light rail project. This phase of the proposed project is scheduled for construction in 1999 and would be financed with local funding (see Section 7.0, Financial Feasibility, of the DEIS/DEIR). The New Central Subway would require federal funding, which has not yet been identified. This phase of the proposed project is estimated for construction in about 2008, 10 years from now. Conducting an archaeological testing program would be initiated prior to further planning for the New Central Subway.

A copy of the Department of the Interior letter has been forwarded to the SHPO for review and advice regarding the suggested Memorandum of Agreement in order to fully comply with Section 106. The response is included in the Final EIS/EIR.

DEPARTMENT OF TRANSPORTATION

BOX 23660
 OAKLAND, CA 94623-0660
 (510) 286-4444
 TDD (510) 286-4454

May 14, 1998



SF-080-05.50
 SCH#96102097
 SF080070



Mr. Brian Kalahar
 San Francisco Planning Department
 1660 Mission Street
 San Francisco, CA 94103-2414

Dear Mr. Kalahar:

Re: Third Street Light Rail Project (DEIR/DEIS)

Thank you for including the California State Department of Transportation (Caltrans) in the review process for the above-referenced project. We have completed our review and forward of the following comment:

1. Absent technical studies for departmental review in the areas of hazardous materials, archaeology, historic architecture, it is not possible to determine if there are impact associated with right-of-way transfers of Caltrans lands. 4-1
2. The document does not address the potential impact of the Third Street Light-Rail Project on Route 101 at third street off-ramp. It needs to analyze and evaluate the operation impact and mitigation measures on Route 101 in both directions. This project may require reconstruction of retaining walls and a new off-ramp on Route 101. These work items are not discussed in the DEIR/DEIS. 4-2
3. On page 2-74 (Agency Approvals): There is no mention of Caltrans as an agency for which a permit would be required (in order to encroach on Caltrans Right-of-Way.) If work on Route 101 is anticipated as part of this project, Caltrans should be listed. 4-3

We appreciate the opportunity to work with you on this project. Should you have any questions, please call Dai Chung of my staff at (510) 286-5737.

Sincerely,

HARRY Y. YAHATA
 District Director

By:

FOR
 PHILLIP BADAL
 District Branch Chief
 IGR/CEQA

cc: CBelsky SCH

Comment Letter 4

Harry Y. Yahata, District Director
State of California Department of Transportation
Box 23660
Oakland, CA 94623-0660

Response 4-1

On page 5-26, Section 5.5.2, the DEIS/DEIR states that the only historic properties within the Area of Potential Effect (APE) for the Initial Operating Segment (IOS) are the Third and Fourth Street bridges and the Islais Creek Bridge. These properties are not associated with potential Caltrans right-of-way transfers to implement the IOS. Similarly, on page 5-28, the document indicates that no impacts to prehistoric or historic archaeological resources are anticipated by implementing the IOS because excavation would not be deeper than what was previously disturbed during street and utility construction. For hazardous materials, Section 4.10.4, Potential and Known Soil and Groundwater Contamination, indicates that hazardous materials are most likely to be found in areas of fill. As presented in Figure 4-12, no known hazardous materials are located in Caltrans right-of-way surrounding the Highway 101 overcrossing that may be associated with project-related land transfers.

The DEIS/DEIR summarizes the information contained in the Technical Reports and background files, focusing primarily on resources and impacts that are potentially significant. The Technical Reports are available for review at the San Francisco Planning Department, as noted in the DEIS/DEIR (for example, see footnote No. 122 on page 4-70 for reference to the availability of the Hazardous Materials Technical Report at the Planning Department). A Historic Property Survey Report, an Archeological Survey Report, and a Finding of No Adverse Effect were prepared by Dames & Moore and were provided to SHPO for review. Three Caltrans staff, Noreen Rodriguez, Mort Azini, and Bijan Sartipi, were members of the Technical Advisory Committee for the Project and have access to the background materials that were incorporated into the DEIS/DEIR.

Response 4-2

Implementing the IOS will require a reconfigured off-ramp to be constructed from northbound Highway 101 to northbound Third Street, as stated in the DEIS/DEIR on page 2-21. The reconfigured off-ramp will require construction of a new retaining wall, described on page 2-23. Subsequent analysis has been performed and documented in the *US 101 and Third Street Overcrossing Draft Project Study Report/Project Report* (April 1998), available at the San Francisco Planning Department. The analysis confirms the DEIS/DEIR findings that the northbound off-ramp can be realigned without affecting the capacity of the off-ramp during construction or after realignment is completed.

Additional information regarding the roadway modifications associated with the Highway 101 overcrossing is presented in the "Staff Initiated Changes" section of this report. No new impacts are identified that are not already discussed in the DEIS/DEIR.

Response 4-3

Caltrans is listed under agencies with approvals for Access Control Properties Review, and Freeway Agreement Modification in Table 2-14 on page 2-74. The table will be revised to add the permit to encroach on Caltrans right-of-way.

TABLE 2-14

**AGENCY APPROVALS
(Revised July 24, 1998)**

Agency	Approval or Permit
Caltrans	Access Control Properties Review, Freeway Agreement Modification; <u>Permit to Encroach on Caltrans Right-of-way.</u>

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

May 19, 1998

Hillary E. Gitelman, Environmental Review Officer
Planning Department
City and County of San Francisco
1660 Mission Street
San Francisco, CA 94103-2414

#5

RE: THIRD STREET LIGHT RAIL PROJECT DRAFT ENVIRONMENTAL
IMPACT STATEMENT/REPORT (SCH 96102097)

Dear Ms. Gitelman:

Thank you for the opportunity to comment on the Draft EIS/EIR for the Third Street Light Rail Project. The Staff of the Commission's Rail Safety and Carrier's Division, Traffic Engineering Section has reviewed the Draft EIS/EIR and offers the following comments for your consideration.

Construction of new rail crossings and modification of existing crossings are subject to Commission authorization as described under Public Utilities Code, Section 1200, et al. Furthermore, the Commission has the exclusive power to determine and prescribe the manner, including the particular point of crossing, terms of installation, operation, maintenance, use, etc. of each railroad crossing. Therefore, the California Public Utilities Commission (CPUC) is correctly included under Section 2.7.2 Required Permit and Approvals, of the EIS/EIR. However, the citation as stated is somewhat misleading.

The "Permits required" are formal CPUC proceedings. This involves filing a formal Application, which must conform to the Commission's Rules of Practice and Procedure, requesting authorization to construct a crossing (or crossings). The Application is reviewed by Commission Staff for public safety, convenience, and necessity. If found to meet CPUC requirements, staff will recommend that the Commission issue a Decision authorizing construction of the crossing(s). This process takes several months, and, if a hearing is needed, may take more than a year. In view of the large number of at-grade crossings proposed in this project (estimated at over 50), it is anticipated that many Applications would be submitted for evaluation prior to authorization and construction.

The required authorization is not limited to at-grade crossings, as stated in Section 2.7.2. of the EIS/EIR. It applies at grade separated crossings, such as where the proposed Light Rail line crosses U.S. Highway 101. It also applies at rail/rail crossings, such as the five areas shown in Figure 3-3 as points of "potential freight/LRT conflict." The Commission may require grade separation of proposed at-grade crossings, such as the pedestrian-only crossing shown at the Caltrain/LRT transfer station at Bayshore.

5-1

5-2

H. Gitelman
5/19/98
page 2

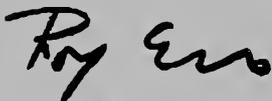
Authorization for any deviation from the requirements of the Commission's General Orders (G.O.) must also be requested. Each request must be evaluated, which takes some time, before Commission action can be taken to grant the request - and more time if revisions are required. Examples include G.O. 26-D (22.5' vertical clearance above freight railroad tracks), 95 (overhead wire vertical clearance requirements), and 143-A (as cited in Section 3.2.4 of the EIS/EIR). Other General Orders which may be applicable include 33-B, 72-B, 75-C, 88-A, 108, 118, 128, 135, 161, and 164. Federal Railroad Administration requirements may also be pertinent.

5-3

Please note that this response is submitted on behalf of the Traffic Engineering Section of the Commission's Rail Safety and Carriers Division only. It should not be construed as representation of the Commission nor any other division, branch, or section thereof.

We look forward to working with you during project implementation. Feel free to contact me at (415) 703-5933 for any further assistance.

Very truly yours,



ROY EVANS
Transportation Engineer
Rail Safety and Carriers Division
Rail Engineering Safety Branch
Traffic Engineering Section

cc: State Clearinghouse

B. Kaneshiro, ENERGY
R. Futrell, RRCS

Comment Letter 5

Roy Evans, Transportation Engineer
Rail Safety and Carriers Division
Rail Engineering Safety Branch
Traffic Engineering Section
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102-3298

Response 5-1

Table 2-14 on page 2-74 is revised to add the suggested language describing the California Public Utilities Commission (CPUC) rail crossing authorization. The permit process described would be initiated during the final design phase of the project following certification of the environmental document.

TABLE 2-14

AGENCY APPROVALS
(Revised July 24, 1998)

Agency	Approval or Permit
California Public Utilities Commission (CPUC)	Permits required for all at-grade or <u>grade-separated</u> railroad, <u>highway, and street crossings as well as pedestrian crossings of light rail and railroad tracks; public hearings before the CPUC may also be required; a formal application to conform with CPUC Rules of Practice and Procedure (CPUC Code Section 1200) is required; a formal application requesting permission to deviate from the established CPUC General Order (G.O.) standard (such as those regarding the height requirements for overhead wire) must be submitted and approved by the CPUC.</u>

Response 5-2

The CPUC is correct in stating that CPUC authorization is required for all light rail/highway crossings, all light rail/railroad crossings and all light rail/pedestrian crossings, be they either at grade or grade separated. MUNI will be required to file formal applications with the CPUC requesting CPUC approval for all of these crossings. It is anticipated that MUNI will group several like crossing requests together under one application. For example, the five proposed light rail/freight railroad crossings will form one logical application package, since the same or very similar grade crossing protection rules and devices would be applied to these five crossings. Similarly, the 50+ light rail/ Third Street at grade crossings will likely be grouped into two or more application packages; the US 101 grade separation and nearby environs into another; and the Bayshore Terminal station area with its pedestrian crossings between the light rail and Caltrain stations another. It is recognized that the CPUC application and approval process is a rather lengthy one and MUNI's implementation schedule will take this requirement into account.

Accordingly, Table 2-14 has been revised as indicated in Response 5-1.

Response 5-3

The CPUC is correct in stating that any desired deviation from the requirements of the Commission's General Orders (G.O.) must also be requested and approved by the CPUC. For example, MUNI will need to request a deviation from G.O. 26-D and G.O. 95 for 18.5' traction power wire height clearances for its new light rail line over the five freight railroad crossings. The CPUC G.O. standard clearance height above freight railroad tracks is 22'6". However, due to the limiting height of the four railroad tunnels leading into San Francisco, the tallest locomotive or freight car that can physically enter San Francisco today is ~16'0", or 3'0" below MUNI's proposed traction power wire height for the new light rail line.

The CPUC statement that Federal Railroad Administration (FRA) requirements may also be pertinent would apply only to the proposed light rail crossings of the five freight railroad spurs/branch lines.

Accordingly, Table 2-14 is revised as indicated in Response 5-1.



1250 San Carlos Avenue
P.O. Box 3006
San Carlos, CA 94070

tel 650.508.6269
fax 650.508.6281

May 19, 1998

#6

Hillary E. Gitelman
Environmental Review Officer
Planning Department
1660 Mission Street
San Francisco, CA 94103-2414

Ms. Gitelman,

Caltrain would like to submit the following comments for the Third Street Light Rail Project DEIS/DEIR.

1. Caltrain is currently completing the Caltrain Rapid Rail Study. This study is a strategic analysis of capital improvements to the Caltrain right of way from San Francisco to Gilroy. A critical part of the Rapid Rail Study is planning for new and rehabilitated station facilities.

As part of the Rapid Rail Study we are developing plans for a new Bayshore Station located just south of the existing station. The Muni LRT station should be designed to be consistent with Caltrain's planned station. The new Bayshore Station will have the following features:

- Location will be south of the existing platforms to take the station off the curve;
- Tracks will be spread to 18' on centers;
- Center fence will be installed;
- Pedestrian grade crossings will be installed at ends of station platforms;
- Platforms will be 600 feet long with expansion possibility to 1,000 feet;
- The UP freight tracks may be relocated;
- Additional parking will be constructed if possible; and
- Station will include standard amenities.

6-1

A schematic drawing of Caltrain's planned improvements is attached to this letter.

Construction of the Muni project would be a good opportunity to improve the Bayshore station to a full multimodal station. As with other major station improvement projects, Caltrain will look to the community and local transit agencies to develop facilities outside the basic railroad envelope. We look forward to working closely with Muni on planning this exciting station project.

6-2

2. While the Muni project will be a good opportunity for a major intermodal station it also raises certain concerns, especially safety. Caltrain is concerned that Muni patrons will cross the Caltrain tracks to access the new Bayshore Station creating a potential safety hazard. Therefore we request that Muni include fencing the Caltrain right of way in the station area and providing a convenient grade separated pedestrian and bicycle access route from the east side of the Caltrain tracks to the west side (location of the Muni station). Caltrain would consider participating in the design and cost of the grade separation if it also served the Caltrain station.

6-3

- 3. In order to maximize Third Street Light Rail connections with Caltrain at Fourth & King Streets, Caltrain would recommend that both the north and southbound tracks be placed upon the Fourth Street Bridge, as shown in Figure 2-14.

Splitting the tracks between the Third and Fourth Street Bridges would force Third Street riders traveling in the northbound direction to walk a lengthy block to access the Caltrain station. This could include substantial numbers of patrons traveling from the Mission Bay area. This arrangement would also reduce the number of light rail options available to Caltrain patrons wishing to use Muni to access downtown and other locations throughout the city.

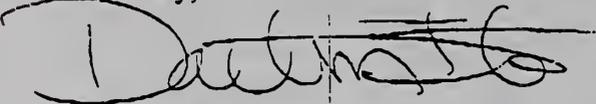
6-4

- 4. The issue of Third Street Light Rail integration with Caltrain is not discussed in the document. Caltrain would be pleased to work with the City as this project moves forward to develop service coordination strategies.

6-5

Caltrain would like to thank the City of San Francisco for our participation on the project's Technical Advisory Committee and for consideration of our comments on the project DEIS/DEIR. Caltrain will be happy to work with The City in the design of this exciting project.

Sincerely,



Darton Ito
Assistant Planner

- c Jim DeHart
Darrell Maxey
Andy Nash
Walt Stringer

Attachment

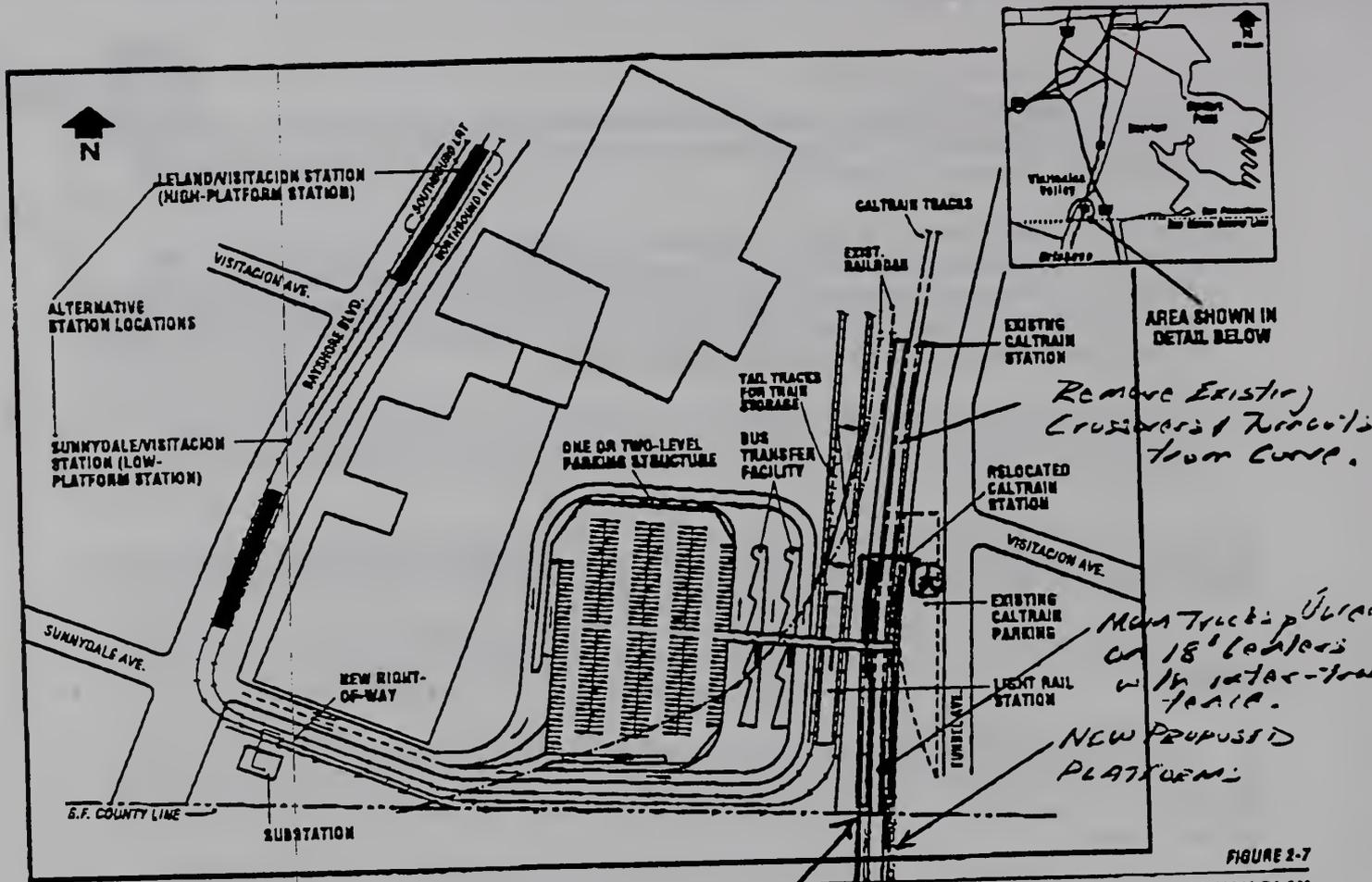


FIGURE 2-7

CALTRAIN BAYSIDE INTERMODAL STATION PLAN
Third Street Light Rail EIS/EIR

NEW 600' Platforms FROM ⊗ TO ⊗

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MAY 6 1998
JPB ENGINEERING

Remove Existing Caltrain Tracks & Relocate them Curve.
 RELOCATED CALTRAIN STATION
 VISITACION AVE.
 EXISTING CALTRAIN PARKING
 LIGHT RAIL STATION
 NEW PROPOSED PLATFORMS
 Main Tracks & Union
 ca 18' between
 with inter-track
 track.
 EXISTING MAIN TRACKS
 NEW #20 UNIVERSAL CROSSOVERS
 FREIGHT D.R. TRACKS & FUTURE PARKING TRACKS

ANDY - Here is my sketch of what Caltrain is proposing at Bayside. All in All - Muni's future light rail plans are consistent with Caltrain's future plans. Believe Caltrain's future platforms will be two or three hundred feet farther to the south than shown on Muni's conceptual plans.
 Deswell

Comment Letter 6

Darton Ito, Assistant Planner
Caltrain
1250 San Carlos Avenue
PO Box 3006
San Carlos, CA 94070

Response 6-1

Caltrain states that it is currently developing plans for a new Caltrain Bayshore Station located just south of their existing train station. Caltrain requests that MUNI design the new Bayshore light rail station so as to be fully compatible with the planned new Caltrain Bayshore Station, and then lists the pertinent features of the planned new Caltrain station.

MUNI intends to design and operate its new Bayshore intermodal station so that it is fully compatible with Caltrain's planned new Bayshore Station, and that the two rail stations facilitate easy passenger transfers between each other, as well as provide convenient transfers to local MUNI and SamTrans buses and, if constructed, park-and-ride facilities. MUNI will work closely with Caltrain to coordinate the final design, implementation and operation of this important new intermodal facility.

Response 6-2

Comment noted. The proposed intermodal facility at Bayshore Station is described on page 2-18 of the DEIS/DEIR.

Response 6-3

Comment noted. MUNI will work with the Joint Powers Board to ensure rider and pedestrian safety through proper signage and fencing at the proposed Bayshore intermodal station. However, grade-separated pedestrian and vehicle access routes are not proposed as part of this project.

Response 6-4

Comment noted. On June 23rd, 1998, the San Francisco Public Transportation Commission selected the option having the north and southbound tracks on the Fourth Street bridge as part of the Locally Preferred Alternative.

Response 6-5

Comment noted. MUNI will work with Caltrain during the final design of the Bayshore Station to develop service coordination strategies.



METROPOLITAN
TRANSPORTATION
COMMISSION

Joseph P. Bort MetroCenter
101 Eighth Street
Oakland, CA 94607-4700
Tel.: 510.464.7700
TTY/TDD: 510.464.7769
Fax: 510.464.7848
e-mail: info@mtc.lst.ca.us

May 19, 1998

#7

Dianne McKenna, Chair
Association of Bay Area Governments

James Spring, Vice Chair
Inland County and Cities

Kerith Atzell
U.S. Department of Housing
and Urban Development

James Baker
County of San Mateo County

James T. Beall Jr.
Santa Clara County

Sharon Brown
County of Contra Costa County

Joe Browne
State Division, Transportation
and Housing Agency

Edward R. Campbell
Alameda County

Dorrie M. Giacopini
U.S. Department of Transportation

Mary Griffin
San Mateo County

Elaine Harris
County of Alameda County

Tom Hsieh
City and County of San Francisco

Jean McCann
City of Santa Clara County

Fred Negri
Napa County and Cities

Jan Rubin
San Francisco Mayor's Appointee

Angelo J. Siracusa
San Francisco Bay Conservation
and Development Commission

Tom Torlakson
Contra Costa County

Doug Wilson
Marin County and Cities

Sharon Wright
Sonoma County and Cities

Lorenco D. Debrais
Executive Director

William F. Hein
Deputy Executive Director

Hillary E. Gitelman
Environmental Review Officer
Planning Department
City & County of San Francisco
1660 Mission St.
San Francisco, CA 94103-2414

RE: Third Street Light Rail Project Draft EIR/EIS

Dear Ms. Gitelman,

Thank you for the opportunity to comment on the above-referenced document. The project would extend the Muni Metro system 5.4 miles to the Caltrain Bayshore Station, serve 138,000 daily riders in 2015 (2,500 new daily transit riders), and cost \$402 million, including a new maintenance facility. As the DEIR/DEIS points out, the project could help support revitalization of Mission Bay and the Bayview Hunters Point commercial core along Third Street.

The financial analysis in Section 7 of the DEIS assumes that system-wide operating costs can be covered through projected growth in "existing revenue sources." However, the DEIS also indicates that the light rail line will initially be more expensive to operate than the improved bus alternative, thereby exposing Muni to potential operating shortfalls in the short to mid-term (MTC's own financial analysis for the 1998 Regional Transportation Plan projects a cumulative operating deficit to be at least \$215 million over the next 20 years). The DEIS would be strengthened with more discussion of how the short to mid-term operating cost increases will be addressed given that the DEIS also states that "maintaining the existing system is a very high priority for Muni in retaining its strong ridership base".

Operating costs are projected to increase an additional \$3 million per year when the New Central Subway is added in 2013. The DEIS indicates that 50% of the funding for the combined Initial Operating Segment and New Central Subway, estimated to cost \$866 million, would come from federal sources. Federal funds available from existing sources are distributed by formula and are used almost exclusively for rehabilitation of the existing system. A second federal source is New Rail Starts program which is discretionary. The FTA full funding grant agreements now committed to the BART-San Francisco Airport extension and Tasman light rail system will draw heavily on this fund source for the next 6

7-1

7-2

7-3

to 8 years. Beyond that, a regional process will be used to determine which other projects to advance for this highly competitive fund source.

If you have any questions regarding these comments, please contact Doug Kimsey of our staff at 510.464.7794

Sincerely,



Chris Brittle
Manager, Planning Section

cc: Commissioner Rubin
Commissioner Hsieh

Comment Letter 7

Chris Brittle, Manager
Metropolitan Transportation Commission
101 Eighth Street
Oakland, CA 94607-4700

Response 7-1

Comment noted that the Project could support revitalization of Mission Bay and the Third Street commercial core.

Response 7-2

The DEIS/DEIR does indicate an operating deficit under current assumptions. The DEIS/DEIR states on page 7-19 that the incremental costs of operating and maintaining the service provided by light rail will be shared by several, existing sources of MUNI funds. A prospective strategy is identified, including fare revenues, parking revenue dedicated to MUNI, and General Fund revenues.

Response 7-3

As reflected on page 7-16 of the DEIS/DEIR, the City recognizes that there is a significant lead time required to secure federal New Starts funding. MUNI does not anticipate that construction would start on the New Central Subway until 2008. MUNI also expects to participate in the regional planning process which will address allocation of New Starts funds. Please note that the Third Street Light Rail Project is listed as eligible for design and construction under the New Starts Program in the new federal transportation legislation (TEA-21).



SAN FRANCISCO COUNTY TRANSPORTATION AUTHORITY

May 18, 1998

Hilary E. Gitelman
Environmental Review Office
City and County of San Francisco - Planning Department
1660 Mission Street
San Francisco, CA 94103-2414

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MAY 21 1998

CITY & COUNTY OF S.F.
DEPT OF CITY PLANNING

100 Van Ness Avenue
25th Floor
San Francisco, CA 94102
Tel: 415-557-6850
Fax: 415-557-6858
sfcta@thecity.sfsu.edu

COMMISSIONERS:

Barbara Kaufman
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Leslie Katz

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Gavin Newsom

Mabel Teng

Michael J. Yaki

Leland Yee

Carmen C. Clark
Executive Director

Subject: Third Street Light Rail Project DEIS/DEIR Comments

Dear Hilary:

Thank you for the opportunity to comment on the Draft Environmental Impact Statement/Report (DEIS/DEIR) on the Third Street Light Rail Project. As the funding agency for the project, we are gratified that a study of this magnitude has remained on schedule for two years. We believe the highly collaborative approach between MUNI and the Planning Department has made this possible. We are also quite pleased with the quality of the technical analyses in the document.

Our comments are circumscribed primarily to Financial Feasibility Analysis (Chapter 7). While the analysis is comprehensive and very well executed, there are some significant issues that we believe need to be pointed out, as they may affect policy level funding trade-offs that the City will need to make in order to be able to proceed with this project. The issues are discussed in the sections below.

The 1997 Strategic Plan Update for Prop. B (the City's half-cent sales tax for transportation) shows (page 8) a \$24.9 million shortfall in the Prop. B funding amount needed for the 3rd Street Project. In our view, there are several different opportunities to deal with this issue. Some arise from revisiting cost assumptions, and some from reconsidering potential funding scenarios. The significance for the Prop. B program lies in the fact that the 3rd Street project is the cost driver for decisions about the need for outside financing. One potential source of funds to close this gap is the Prop. B line item for MUNI vehicles. However, MUNI has not yet resolved the issue of sole source procurement of the next LRV contract. It would not be prudent to assign funding from this category to 3rd Street until there is resolution on the sole source procurement issue. Before a schedule of contributions from Prop. B to the 3rd Street project is agreed upon, we would like to make sure that all relevant options and potential trade-offs have been carefully scrutinized. Table 7-10 in the DEIR/DEIS includes line item 3.b. for \$24.9 million, for the acquisition of land for the maintenance facility. It is our understanding that this would be to obtain a 60-year lease from the Port of San Francisco, and that the funds would be needed up front. The required amount would probably come out of the 3rd Street Capital Construction fund in Prop. B. In our view

8-1

8-2

this is an artificial cost which amounts to a transfer of funds within City coffers (between MUNI and the Port). This is further complicated by the fact that the Port does not yet own the property. The opportunities in this regard are about re-thinking the rationale for this payment from one City department to another, and, should the payment be required, revisiting the terms of the proposed lease, specifically to reduce the cost and/or lengthen the period of time for payment, spreading the burden over many years and postponing the need for outside financing. 8-2

Also in Table 7-10 there is a detail of costs associated with providing LRT service to the Mission Bay development. As the text states, items 5 and 6 (light rail vehicles and turnback facility) would not be needed until the year 2015. The Table shows that \$38 million would be needed for the additional 10 vehicles to provide service to Mission Bay. It is our opinion that the separate purchase of 10 LRVs may not be viable, and that it would make better economic sense to have these included in the proposed procurement of 59 LRVs, together with the 25 needed for service directly on 3rd Street. If a joint procurement were to occur, it would probably take place sooner, rather than later in the schedule for implementation of 3rd Street, so we would expect that the cost per unit would be closer to the current \$2.8 million. This could result in cost savings of around \$10 million. The EIR should address the issue of potential private sector contributions to the project, including key assumptions, timing and amounts, given the direct linkage between the Mission Bay development and the need for the additional service. The same also applies for item 6, the Mission Bay Turnback, which is intended to enable short line service between Mission Bay and the MUNI Metro tunnel along Market Street. 8-3

Finally, in July the Authority will initiate a value engineering exercise on 3rd Street, to try to identify main cost reduction opportunities. With regard to this issue, the DEIS/DEIR should clarify the magnitude and cost of Phase 2 of the proposed maintenance facility, and provide further details about the cost components of Phase 1. 8-4

Thank you for the opportunity to comment. Should you have any questions about the issues raised in this letter, please call José Luis Moscovich, at 557-6857.

Sincerely,



Carmen C. Clark
Executive Director

Comment Letter 8

Carmen Clark, Executive Director
San Francisco Transportation Authority
100 Van Ness Avenue, 25th Floor
San Francisco, CA 94102

Response 8-1

The revenue shortfall identified by the San Francisco Transportation Authority is based on the Proposition B 1997 Strategic Plan Update, which was adopted in December 1997. MUNI's assumptions of sales tax growth and inflation turned out to be more optimistic than the Transportation Authority's analysis. MUNI intends to work closely with the Transportation Authority to address the identified shortfall with a combined cost/revenue approach. Potential cost savings will be identified and evaluated as part of an intensive value-engineering exercise, which the Transportation Authority has already made a commitment to do. In addition, MUNI will pursue cost-sharing arrangements for such project elements as utility relocation, street resurfacing, lighting and other general betterments and amenities with City departments and developers in the Corridor. MUNI will explore the feasibility of a sole-source vehicle procurement that could result in significant cost savings to the project. MUNI will also re-evaluate the parking needs and configurations at the project's southern terminus, which may also result in cost savings.

On the revenue side, MUNI will investigate and pursue additional external funding sources as appropriate. The FY 2000 State Transportation Improvement Program, a traditional expansion fund source, is one example of a potential for contributing additional funds to the project. Other City sources may be tapped, as stated above, for utilities, street trees and other elements of the project.

Response 8-2

MUNI has identified a preliminary cost for the acquisition of land for the Metro Easy facility of \$24.9 million. However, the final cost and terms of this acquisition will not be finalized until after the San Francisco Transportation Authority, the Port of San Francisco, MUNI and the Mayor's Office reach agreement on the extent and timing of the transaction.

Response 8-3

Discussions between MUNI and the Redevelopment Agency as well as private developers in Mission Bay regarding contributions to the light rail project have been initiated and will continue over the next year.

Response 8-4

The San Francisco Transportation Authority states that they will initiate a value engineering exercise on the project to see if there are any significant opportunities for cost reduction. The Authority also would like to see a more detailed cost breakdown for both Phases 1 and 2 of this facility.

Detailed cost breakdowns for both Phases 1 and 2 of the Metro East facility are contained in the final *Conceptual Cost Estimates Working Paper #5A* (November 1997), available for review at the San Francisco Planning Department, under the tab labeled "Metro East Yard & Shops, Plus Related Shoreline Improvements". Summary cost tables along with detailed back-up estimates are provided. Phase 1 is shown as costing \$107.2 million in January 1997 Dollars, while Phase 2 is shown as costing \$31.3 million.

Accordingly, the following paragraph will be added to the DEIS/DEIR after the first paragraph of page 2-72, Section 2.5.2, Capital Cost Summary:

The total capital cost for the IOS includes \$107.2 million (1997 Dollars) for the Phase 1 construction of the new LRV maintenance facility as follows:

- **Engineering and management;**
- **Right-of-way acquisition/lease;**
- **Preparation of the entire 13+acre site for construction (soil stabilization);**
- **Construction of yard storage tracks for approximately 60 LRVs;**
- **Construction of a maintenance shop building; and**
- **Contingency**

To complete the new maintenance facility, Phase 2 would add yard storage tracks and expand the shop building(s) to accommodate approximately 40 additional LRV's.



**PUBLIC UTILITIES COMMISSION
CITY AND COUNTY OF SAN FRANCISCO**

WILLIE L. BROWN, JR.
MAYOR

ANSON B. MORAN
GENERAL MANAGER

HETCH HETCHY
WATER AND POWER

SAN FRANCISCO
WATER DEPARTMENT

SAN FRANCISCO
CLEAN WATER PROGRAM

May 19, 1998

Subject: Third Street Light Rail
Draft EIS/EIR
Case Number 96.281E
Written Comments

9

Mr. Brian J. Kalahar
Environmental Planner
San Francisco Planning Department
1660 Mission Street, Fifth Floor
San Francisco, CA 94103-2414

RECEIVED

MAY 19 1998

**CITY & COUNTY OF S.F.
DEPT. OF CITY PLANNING
ADMINISTRATION**

Dear Mr. Kalahar:

Thank you for the opportunity to comment on the Draft Environmental Impact Statement/
Environmental Impact Report for the Third Street Light Rail Project.

Specifically, our comments relate to Chapter 5.0: ENVIRONMENTAL CONSEQUENCES
AND MITIGATION MEASURES - Section 5.7 UTILITIES AND ENERGY:
Section 5.7.2 IMPACTS TO MAJOR UTILITY LINES, Page 5-39:

The **Light Rail Alternative - Initial Operating Segment**, Construction Impacts, indicates impacts to four major subsurface PG&E gas pipelines. Along almost the entire length of Third Street, sewer pipelines run down the centerline of the street. In order to be able to repair and maintain those sewer lines and to avoid conflict with the proposed Light Rail tracks, the sewer lines will have to be relocated. The Utilities Engineering Bureau of the San Francisco Public Utilities Commission believes that the relocation of the sewer lines is required as a direct consequence of the construction of the Third Street Light Rail Project and as such should be a project cost borne by the Municipal Railway (and the Federal Transit Administration).

9-1

In certain segments of the Project alignment, existing sewer pipelines may be structurally inadequate or are of insufficient capacity to meet anticipated sanitary or stormwater flows and must be enlarged. Discussions are now underway between the Utilities Engineering Bureau and the Municipal Railway Capital Projects to identify those sewer lines which are structurally inadequate or insufficient capacity and must be upgraded. Those sewer lines which will require additional capacity, as a direct result of stormwater runoff from planned Municipal Railway facilities (such as the proposed Western Pacific Maintenance Facility), would be upgraded by cost sharing. Negotiations are planned between the Public Utilities Commission and the Municipal Railway to identify costs attributable to the Third Street Light Rail Project and those costs attributable to other anticipated sewer system demands (Mission Bay Project, for example).

9-2

Mr. Brian J. Kalahar
Environmental Planner
San Francisco Planning Department
May 19, 1998
Page 2

Other Comments:

Chapter 4.0 AFFECTED ENVIRONMENT.

Section 4.8.2, EXISTING SURFACE WATER WITHIN THE CORRIDOR, Page 4-64, Second Full Paragraph, Fourth Sentence: We believe this statement is incorrect ("The only portions of the study area that are not currently connected to the combined sewer system...") because our records indicate the Western Pacific Site is not connected to the City system.

Page 4-64, Third Full Paragraph, Second Sentence: Again, we do not think stormwater from this Site flows into the storm sewer drains.

9-3

Chapter 5., ENVIRONMENTAL CONSEQUENCES AND MITIGATION MEASURES.

Section 5.7 UTILITIES AND ENERGY, Subsection 5.7.2. IMPACTS TO MAJOR UTILITY LINES.

Page 5-41, Western Pacific and Cargo Way Maintenance Facility Sites. We believe this statement that "no existing, major utilities would be affected..." is incorrect. The undersized sewer pipe, which runs under Third Street, is being augmented by the construction of the new sewer line under Illinois Street. Addition of stormwater runoff from the proposed Western Pacific Maintenance Facility site would have a definite impact on the Third Street sewer. This discussion may need to describe the new sewer line and as a mitigation measure increase in the size of the new sewer to accommodate the stormwater flow from the new Facility.

If the stormwater is not going directly into the combined sewer system, the document may need to discuss a "first flush" system that might have to be developed related to development of the Port Property. You may want to talk to Beth Goldstein, Bureau of System Planning and Regulatory Compliance at 554-8945 about the "first flush" system being considered for Mission Bay and Candlestick Park and being constructed for the Giants Stadium.

9-4

Section 5.9, HYDROLOGY AND WATER QUALITY

Subsection 5.9.2 INCREASES STORM WATER RUNOFF,

Page 5-54, Western Pacific and Cargo Way Maintenance Facility Sites: This section may need to include a discussion about an application that may be filed by the City for an NPDES Stormwater Permit from the Regional Water Quality Control Board for the areas (including Port Property) which are not connected to the combined storm drain/sewer system. The discussion in this subsection assumes that the proposed maintenance facility sites will be connected to the City's combined system, which may or may not be true depending on the on-going discussion between our two departments.

9-5

Mr. Brian J. Kalahar
Environmental Planner
San Francisco Planning Department
May 19, 1998
Page 3

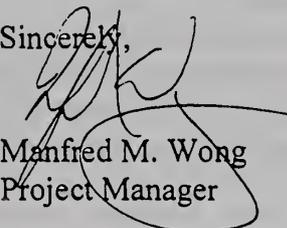
Chapter 6.0 CEQA FINDINGS OF SIGNIFICANCE
Section 6.2 SUMMARY OF CUMULATIVE IMPACTS
Subsection 6.2.2 LOCAL CONTEXT

Page 6-3, Second Paragraph: The discussion of other projects such as Mission Bay redevelopment and the Moscone Center expansion and the temporary cumulative traffic disruptions resulting from those projects does not include a discussion of the proposed Sunnydale Sewer Improvement Project. The project, which would involve both open cut and tunneling in the area from Bayshore Boulevard east to the end of Sunnydale Avenue, would be constructed over a two year period starting early in the year 2000. This construction schedule is concurrent with the anticipated schedule for the Initial Operating Segment. While we agree that the cumulative construction impacts would be temporary and not significant, coordinated scheduling of the two projects (particularly at the end of Sunnydale Avenue east of Bayshore Boulevard and the site of the proposed Bayshore Intermodal Station) will be essential to reduce any cumulative impacts.

9-6

Thank you for your consideration of these comments. If you have any questions, I can be reached at (415) 558-4025.

Sincerely,



Manfred M. Wong
Project Manager

cc: Norman Chan, Hydraulics Section, Department of Public Works
Andrew J. Howard IV, P.E., Capital Projects, Municipal Railway
Everett Hintze, Acting Manager, Utilities Engineering Bureau

Comment Letter 9

Manfred Wong, Project Manger
San Francisco Public Utilities Commission
Utilities Engineering Bureau
155 Market Street, 5th Floor
San Francisco, CA 94103

Response 9-1

As stated in Section 2.4.3, page 2-59 of the DEIS/DEIR, underground utilities located in the light rail alignment would be relocated to the curb-parking lane as part of pre-construction activities. The cost for project-related relocation, where necessary, would be borne by MUNI. MUNI/DPW/PUC will begin a process to identify cost sharing where PUC wants to concurrently replace existing, worn sewer facilities along the alignment based on an assessment of needs currently being undertaken by the City.

Response 9-2

Comment noted. See Response 9-1. Also, MUNI is currently in negotiation with the San Francisco Public Utilities Commission to enlarge the planned sewer line under Illinois Street to accommodate the waste water generated by the proposed light rail maintenance and storage facility at the Western Pacific site. Specific changes to the text are indicated in Responses 9-3 and 9-4.

Response 9-3

In Section 4.8.2, the DEIS/DEIR identifies the portions of the Corridor that are not currently connected to the City's combined sewer system. The second paragraph and Footnote #93 on page 4-64 are revised to clarify that the Western Pacific site for the new light rail maintenance facility is part of the Port property on this list.

The only portions of the study area that are not currently connected to the combined sewer system are the east side of The Embarcadero between Mission Street and Broadway, Terry Francois Boulevard, and a portion of the landward Port property, **including the Western Pacific site for the proposed light rail maintenance facility.**

⁹³Lociano J., Section Manager, Environmental Engineering, San Francisco Department of Public Works, Southeast Water Pollution Control Plant, Personal communication with BASELINE, 20, November, 1996; **Wong, M., Project Manger, Utilities Engineering Bureau, San Francisco Public Utilities Commission, telephone conversation, June 1998.**

Although no mitigation measures are required for utilities for the Light Rail Alternative- IOS, the third paragraph on page 5-40 of the DEIS/DEIR is revised to indicate that the Light Rail Alternative will bear the cost of utility reinforcement/protection, as well as relocation, during construction of the IOS.

Mitigation Measures

None required. All project-related utility relocation **and reinforcement/ protection of existing utilities that do not have to be relocated** would be a project cost as identified in the Conceptual Capital Cost Estimate.¹⁶

Response 9-4

The discussion of impacts to major utility lines in Section 5.7.2 of the DEIS/DEIR does not mention that the existing sewer system lacks the capacity to accommodate a new light rail maintenance facility at the Western Pacific site. Because flows from the Western Pacific site would be directed to the City's combined sewer system for the first time, they would have the potential to increase the volume and frequency of overflow events. The analysis of this potential concluded that the additional influent would have a negligible effect on overflows, and no significant effect would occur. (See DEIS/DEIR Section 5.9.2, p. 5-55).

The Mission Bay SEIR identified a 0.2% increase in Combined Sewer Overflow (CSO) volumes as a result of increased sanitary sewage and drainage changes in Mission Bay South, and conservatively concluded that this increase would represent a measurable contribution to a significant cumulative impact, requiring mitigation. According to Beth Goldstein at the PUC, the increase in CSO volumes as a result of storm flows from the 13 acre Western Pacific site would be substantially less than those from Mission Bay, and would be within the range of uncertainty of the Bayside Planning Model, which is used to predict overflows and plan system improvements. (Beth Goldstein, Public Utilities Commission staff, personal communication with Hillary Gitelman, August 12, 1998.)

The second paragraph on page 5-41 is revised to identify the work planned to provide sufficient sewer capacity in this area.

No existing, major utilities would be affected at the Western Pacific or Cargo Way sites, **except for the combined sewer system on Third Street. Additional capacity will be provided by the construction of a new sewer line on Illinois Street. The diameter of the planned line will be expanded from 60 to 66 inches to provide sufficient capacity to accommodate the proposed light rail maintenance facility at the Western Pacific site. The Municipal Railway is negotiating with the San Francisco Public Utilities Commission to share the cost for a portion of the planned sewer project.**

Response 9-5

Section 5.9.2 of the DEIS/DEIR states that runoff from the Western Pacific site will be discharged to the City's combined sewer system. The fourth paragraph on page 5-54 is revised to clarify that the drainage system for the light rail maintenance facility at the Western Pacific site will be connected to the combined sewer system.

The Light Rail Alternative would include the construction of a drainage conveyance system designed to collect runoff from the maintenance facility. The runoff could be discharged to the City's combined storm drain/sewer system **after a connection to the planned Illinois Street sewer is provided.**

Response 9-6

Section 6.2.2 discusses cumulative construction impacts resulting from the construction of the Light Rail Alternative. It does not specifically identify the Sunnydale Sewer Improvement Project, which may occur in the area of the Caltrain Bayshore Station at the same time the light rail line is being constructed. Although the cumulative effect of this sewer improvement project would be temporary and not significant, the second paragraph of page 6-3 of the DEIS/DEIR is revised to mention the simultaneous construction schedules.

As construction of the IOS begins in 2000, Mission Bay redevelopment and Moscone Center expansion, possibly the Sunnydale Sewer Improvement Project, and the new baseball ballpark and football stadium also will be under construction.



Willie Lewis Brown, Jr., Mayor
Mark A. Primeau, AIA, Director and City Architect

Department of Public Works
Project Management Division
30 Van Ness Avenue, 5th Floor
San Francisco, CA 94102-6020
Kathryn How, Assistant City Engineer

May 20, 1998

#10

Mr. Brian Kalahar
Department of City Planning
1660 Mission Street, 4th Floor
San Francisco, CA 94103

Dear Mr. Kalahar:

The following are Department of Public Works comments on the 3rd Street Light Rail Project EIR/EIS. These comments focus on Auxiliary Water Supply System, constriction activities and historic issues on the 4th Street bridge and road grade and paving concerns.

AWSS

- Section 4.6 Utilities Page 4-52 needs to be revised to identify the Fire Department as the operator of the Auxiliary Water Supply System not the Water Department. 10-1
- Page 4-54 and 4-55 table 4-9 needs to identify the AWSS in the 3rd Street right-of-way from Salinas to Palou St. and from 25th to the Mission Creek channel on both 4th Street and 3rd Street. On Cargo Way from 3rd Street to Mendell St. On 4th Street from the 3rd Street to Brannan, 3rd Street from King to Market and on Stockton and Kearny Streets. Please refer to the attached drawing for general location and utility maps previously submitted for specific details of line sizes and alignments. 10-2
- Page 5-39 Section 5.7.2 need to include a statement on relocation or protection of AWSS lines as part of the IOS in the locations stated above. 10-3

Transportation Analysis

- Section 3 need to discuss or identify roadway work, street rebuilding etc. due to the new rail work (i.e. grade changes causing reconstruction). The pavement restoration costs are included in Table 2-12 Capital Cost Summary. 10-4

Mr. Brian Kalahar
May 20, 1998
Page 2

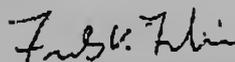
4th Street Bridge

The 4th Street Bridge is a system of three structures. North and South Approaches and a Bascule type lift bridge. The bridge and its approaches are in a deteriorated condition and will need to be rebuilt or modified to some degree to support light rail beyond what is proposed for DPW's seismic rehabilitation project. There are a number of utilities that currently cross the channel and the rail project also will require submarine power crossing at the channel. The light rail project improvements including overhead power supports, rails and decking modifications to support rails are not part of the DPW project and need to be addressed in EIR/EIS. Specific comments are as follows:

- Page 4-37, Table 4-5 needs to include the 3rd Street and 4th Street Bridge as community facilities;
- Page 5-26, Light Rail Alternative ISO Construction impacts needs to identify the Light Rail project elements and impacts to the 4th street Bridge separate from DPW's rehabilitation project. Also this information needs to be carried forward into any consultations and reports prepared to SHPO.

Please contact me if information or clarification is needed to address the Department's concerns.

Sincerely,



Frank V. Filice
Principal Analyst

c: Kathy How, Assistant City Engineer
Chief Kalos, Fire Department
Sue Olive, MUNI
Peg Divine, MUNI

FVF/ec

10-5

Comment Letter 10

Frank Filice, Principal Analyst
Department of Public Works
Project Manager Division
30 Van Ness Avenue, 5th Floor
San Francisco, CA 94102

Response 10-1

Section 4.6 identifies the primary utilities serving the Corridor. In order to distinguish the operators of the City's potable and auxiliary water systems, the fourth paragraph on page 4-52 is revised.

2) City and County of San Francisco Water Department potable and ~~auxiliary~~ water lines and San Francisco Fire Department auxiliary water lines;

Response 10-2

Major utility lines in the Corridor, those most likely to be affected by project implementation, are listed in Table 4-9 on pages 4-54 and 4-55 of the DEIS/DEIR. A more extensive listing of utilities in the Corridor is provided in the *Third Street Light Rail Project Conceptual Capital Cost Estimates*. The drawings and utility maps that identify the Auxiliary Water Supply System lines will be incorporated into the Project's technical documentation, available for review at the San Francisco Planning Department.

Response 10-3

Section 5.7.2 identifies the major underground utilities that would be directly affected by construction of the Light Rail Alternative. The auxiliary water supply lines are adjacent to the curb and are not affected by construction of light rail in the center of the street. Relocated utilities would be placed above or to the side of the auxiliary water supply lines. During relocation of affected utility lines from the center of the roadway to the curb, the location of the auxiliary water lines would be routinely monitored to ensure that no damage to these lines would occur (refer to Response 9-3).

Response 10-4

The construction methods for the Light Rail Alternative are summarized in Section 2.4.3. The text states that for the IOS, roadway construction, in general, would occur sequentially from the northern to the southern ends of the Corridor. One side of the street would be in construction and repaved prior to work commencing on the other side of the street. The costs for this work are included in Table 2-12 on page 2-71 of the DEIS/DEIR. A description of surface construction impacts and their effect on traffic circulation is presented in Section 3.2.2.

Response 10-5

Table 4-5 on page 4-37 of the DEIS/DEIR lists the community facilities located in the Corridor. Since infrastructure is not considered an institutional facility, the Third and Fourth Street bridges are not included

under Community Facilities and Services. They are described in Section 2.4.1, Light Rail Alternative – IOS, and in Section 5.5.2, Historic Property Impact.

Section 2.4.1 presents the IOS alignment and traction power requirements as well as other facilities associated with the Light Rail Alternative. The alignment description includes the light rail crossing of Mission Creek on the Third and Fourth Street bridges. On page 2-30, the DEIS/DEIR states that adding light rail to these bridges would not require additional major strengthening of the bridges beyond the rehabilitation and seismic upgrade planned by the Department of Public Works. However, some structural modifications may be required to strengthen the bridge deck (refer to *Study to Investigate the Structural Condition of Three Existing Bascule Bridges Crossing Mission and Islais Creeks and the Third Street/Bayshore Boulevard Bridge Crossing U.S. Highway 101*, available at the San Francisco Planning Department). To clarify that the Light Rail Alternative would add track, overhead wire, and support poles to the rehabilitated bridges, as well as requiring strengthening of a bridge deck, the second paragraph on page 2-30 is revised.

Adding light rail to the bridge is not expected to require any major strengthening of the bridge structure since, in the past, streetcars operated across this span. No major modifications to the Fourth Street bridge are required solely to carry light rail traffic. As defined in the Locally Preferred Alternative, this bridge will carry two light rail tracks. As a result, some additional structural modifications may be required to strengthen the bridge deck. Strengthening of the bridge foundations will not be required for two tracks of light rail traffic. The steel structure of the bridge has been determined during preliminary engineering to be adequate for the loading of the LRVs and the main changes would be some additional steel to the floor stringers to carry the point load of the vehicles.

This description of the additional light rail facilities to be included on the Third and Fourth Street bridges is reiterated in Section 5.5.2, which identifies potential historic property impacts. The DEIS/DEIR states that the addition of tracks and overhead wires to the bridges would be in keeping with their original historic design and, therefore, would not produce an adverse effect on the bridges (refer to Volume 1, Appendix F). The final design for the bridges will provide the carrying capacity for two-car light rail trains. However, to clarify that the Department of Public Works improvements to the Third and Fourth Street bridges do not include the facilities for light rail, the third paragraph on page 5-26 is revised.

The Third and Fourth Street lift bridges are in need of seismic upgrade and rehabilitation. The San Francisco Department of Public Works is currently designing the improvements for these two bridges that, when completed, will allow the placement of light rail track, overhead wire, and support poles on the Fourth Street bridge and will have carrying capacity for two-car light rail trains.

In addition, Section 2.4.1 (page 2-44) of the DEIS/DEIR acknowledges that the Light Rail Alternative will require placement of new underwater cable at the bottom of Mission and Islais Creeks to provide a continuous flow of electric power along the alignment when the lift bridges open. Construction impacts for laying the underwater cable are discussed on page 5-51 of Section 5.9, Hydrology and Water Quality, and on page 5-58 of Section 5.10, Biological and Wetland Resources.



CITY OF BRISBANE

50 PARK LANE
Brisbane, California 94005
(415) 467-1515
FAX (415) 467-4989

RECEIVED

MAY 19 1998

May 19, 1998

Hillary E. Gitelman
Environmental Review Officer
Planning Department
City and County of San Francisco
1660 Mission Street
San Francisco, CA 94103-2414

CITY & COUNTY OF S.F.
DEPT. OF CITY PLANNING
ADMINISTRATION

#11

Re: SF Case File No. 96.281.E; State Clearinghouse #96102097

Dear Ms. Gitelman:

Thank you for the opportunity to comment on the **Draft Environmental Impact Statement/Report on the Third Street Light Rail Project**. In light of the City of Brisbane's existing and planned land uses, the City is generally supportive of a project that will provide increased transit access to and from southeastern San Francisco and Brisbane. However, given the complexity of the proposed project and major pending land development proposals in the City of Brisbane, we request that the public comment period be extended so that we may work in cooperation with the City and County of San Francisco.

11-1

Our main concerns are as follows:

- The project, as defined, would diminish the traffic capacity of Third Street, the Highway 101/Third Street/Bayshore Boulevard interchange and/or Bayshore Boulevard.
- The Draft EIS/EIR fails to differentiate the more-significant construction impacts of the proposed grade-reducing cut-and-fill operation south of Jamestown Avenue from the lesser construction impacts for the rest of the Third Street Light Rail Initial Operating Segment.
- The Draft EIS/EIR contorts to identify mitigation measures for traffic/transit impacts for Segment 1 of the Third Street Light Rail IOS, and then provides insufficient analysis to assure that the recommended mitigation measures are credible and will not create additional traffic/transit impacts of their own.

11-2

11-3

11-4

- The Draft EIS/EIR finds that the proposed Third Street Light Rail Alternative IOS will not provide improved transit service between Visitacion Valley/Little Hollywood and Downtown in comparison to the existing 9X/9AX/9BX-San Bruno Muni bus lines. 11-5
- The Draft EIS/EIR fails to consider the "environmentally superior alternative" (page 6-4) of a previously proposed southern route that avoids the proposed route's impacts. 11-6
- The City of Brisbane is in the process of considering a development proposal by Universal Paragon in its 600-acre vacant Redevelopment Area southeast of the proposed Third Street Light Rail terminus. East of the terminus across Highway 101, the City and County of San Francisco is considering a 1.5 million sq. ft. mall/stadium project. The need for transit to serve these projects suggests that the terminus station be relocated to provide sufficient area for a larger multimodal transit facility to better serve the Project Goals and Objectives. In light of the above, the City of Brisbane feels that there may be an opportunity to refine the southern segment of the proposed project for our mutual benefit. In light of the foregoing, please evaluate the alternative route and terminus location described herein as part of your Response to Comments. 11-7

The proposed Segments 1 and 2 (south of Gilman Avenue) of the Third Street Light Rail will result in a number of adverse environmental impacts during its construction and operation phases. 11-8

Due to the existing topography of the ridgeline running between Bayview and McLaren Parks, the proposed Segments 1 and 2 of the route south of Jamestown Avenue require substantial cut and fill work in a developed and heavily-traveled area. Specifically proposed are a 900 ft. long, 6-8 ft. deep cut down the middle of Third Street; 705 ft. long, 6 ft. high retaining walls in the middle of Bayshore Boulevard; an additional retaining wall east of Bayshore Boulevard of unspecified size; an 800 ft. long, 30 ft. high retaining wall upslope of the northbound Highway 101/Third Street off ramp; and widening of the Highway 101 overcrossing. All this work will result in significant construction-related impacts to adjacent existing homes and businesses (not specifically addressed by the Draft EIS/EIR, pages 5-79 through 5-81), as well as substantial construction costs (Table 2-12, page 2-71). The proposed construction activity and subsequent reduction in the number of through lanes and elimination of left 11-9

turn lanes will significantly disrupt existing traffic patterns for buses, cars and trucks during and after construction (pages 3-32, 3-33, 3-40 through 3-43, 3-51).

11-9

The adverse traffic impacts for Segment 1 are most evident at the skewed intersection of Bayshore Boulevard with Arleta, Blanken and San Bruno Avenues. This intersection has a higher existing daily traffic volume than most of Third Street (page 3-14 & Table 3-1). With 6 travel lanes (not counting left turn lanes), it currently is able to operate at Level of Service C (page 3-15). Given development projected to the year 2015, the proposed Third Street Light Rail would worsen the projected LOS rather than improve it (Table 3-9 & page 3-42).

11-10

To mitigate this significant adverse impact (which results in part because the Third Street Light Rail would preclude currently-permitted left turns from southbound Bayshore Boulevard to Tunnel Avenue, diverting them, instead, to Blanken Avenue via a new left turn signal), the Draft EIS/EIR (page 3-46) recommends that left turns from eastbound Arleta Avenue to northbound Bayshore Boulevard be prohibited. This, in turn would require re-routing of the 9X/9BX-San Bruno Muni bus lines, besides some reconfiguration of Arleta Avenue (not noted in the Draft EIS/EIR), presumably either by converting it into an eastbound right-turn-only lane or realigning it as a continuation of the currently offset Blanken Avenue at the other side of the intersection. The Draft EIS/EIR further recommends that eastbound traffic desiring to turn left onto northbound Bayshore Boulevard be diverted to Raymond Avenue, for which a new left turn lane would be created across the former Bayshore Boulevard median (to be occupied by the Third Street Light Rail). Presumably, this, too, would require a new left turn signal, but the Draft EIS/EIR neglects to analyze the LOS impact of this additional signal phase.

11-11

11-12

A second example of the adverse traffic impacts for Segment 1 is the intersection of Bayshore Boulevard with the north end of Hester Avenue, just south of the Highway 101 overcrossing. This intersection is already a complicated mix of traffic entering and exiting the freeway, merging from and diverging between Bayshore Boulevard and Third Street, and turning left in four different directions from one shared lane. While the Third Street Light Rail would typically occupy both the #3 southbound and #3 northbound lanes, at this location a "shift in the alignment" (page 2-21) would occur so that the tracks and the #2 northbound lane would cross, exchanging positions. Even with additional signalization to control all of these "complex turning movements" (page 2-21), the result would be LOS F for the southbound left-turn movement (page 3-42), which is unacceptable (page 3-15).

11-13

To mitigate this significant adverse impact, the Draft EIS/EIR appears to recommend that the #2 southbound lane "be delineated to serve both left-turning and through vehicles (if deemed feasible during final design)" (page 3-47). No alternative mitigation is offered if this is not deemed feasible, and it is questionable how traffic flow is improved by potentially impeding one of only two through lanes serving traffic from southbound Bayshore Boulevard and Third Streets, as well as the southbound Highway 101 off ramp (Figure 2-8).

11-14

This difficulty the Draft EIS/EIR has in identifying credible mitigation measures (other examples being the recommended Meade Avenue shuttle, pages 3-33, 3-34, and the recommended Keith Avenue extension, Figure 2-8 and page 3-43) for these traffic impacts for Segments 1 and 2 south of Gilman Avenue makes clear that another, environmentally-preferable route must be identified.

11-15

This is particularly evident when the Draft EIS/EIR shows that the proposed Third Street Light Rail Initial Operating Segment will not adequately address the transit needs in the Visitacion Valley and Little Hollywood neighborhoods. According to pages 3-2 through 3-7 of the Draft EIS/EIR, the Bayshore Boulevard section (Segment 1) of the proposed Third Avenue Light Rail route is already served by six Muni bus lines. Of these, the 9X/9AX/9BX-San Bruno Expresses appear to be filled to greater capacity by Visitacion Valley residents than the 15-Third line. This is understandable since, for example, the morning San Bruno Express can get to Kearny/Pacific Avenues in 30 minutes, while the 15-Third takes 54 minutes just to get to Stockton/Clay Avenues. Rather than duplicating the central section of the existing 15-Third line with the proposed Third Street Light Rail line, the Visitacion Valley and Little Hollywood areas would be better served by adding more buses to the existing 9X/9AX/9BX/9-San Bruno Muni bus lines.

11-16

The Draft EIS/EIR's "Estimated Weekday Transit Ridership" Table 3-6 (also page 3-32, second & third paragraphs) bears this out. The Third Street Light Rail ISO is projected in the year 2015 to carry 4,520 fewer riders than would the 15-Third Muni bus line it would replace, while the 9X/9AX/9BX would carry 4,680 more if the Third Street Light Rail is built than if it is not.

11-17

The Third Street Light Rail's southern terminus is proposed at an obscured location currently under various ownerships and occupied by existing structures, including an operational business and freight railroad spur track. Site acquisition costs will include relocating the existing business and either negotiating a "satisfactory solution" (page 3-55) to the freight spur situation or reducing the proposed number of parking spaces and bus bays at the Caltrain Bayshore Station. Due to this site's limited area, structured parking may be a necessity.

11-18

This "deadend" location would not be conducive to future extensions to Candlestick Point or the Balboa Park BART station (page S-4), addressed in the 1993 Bayshore Transit Study .

11-18

These inadequately mitigated impacts and functional deficiencies make clear the need to consider an environmentally and financially preferable alternative to the proposed Segments 1 and 2--the Gilman Avenue/Candlestick route identified as "Refined Alternative 10" in the 1993 Bayshore Transit Study, which this Draft EIS/EIR fails to analyze. That alternative route would use broad, relatively flat Gilman Avenue to accommodate direct service to the future Candlestick Mills Mall and new 49ers stadium, addressing the traffic impacts of these two projects while improving access to the employment opportunities they promise for residents of the Third Street corridor. In addition, this route would avoid the grading, construction and traffic complications of the Bayshore Boulevard route. This alternative route could extend from Candlestick down Harney Way to San Francisco Executive Park, still under development, where the existing 56 Muni bus line could provide connecting service to the existing Caltrain Bayshore Station (possibly supplemented by the "temporary private shuttles" proposed on page S-7). In addition, the 29 Muni bus line, for example, could be rerouted to serve that portion of Third Street between Gilman Avenue and Bayshore Boulevard which would otherwise no longer be served.

11-19

An extension of Geneva Avenue proposed by the City of Brisbane is being designed to include light rail for future continuation directly to the Balboa Park BART station. A multimodal transit facility with a larger site and better access than included at the proposed southern terminus would be provided where this alternative route crosses the Caltrain tracks, just south of the current Bayshore Station. Such a facility would mitigate the "higher traffic volumes along Bayshore Boulevard than assumed in this EIS/EIR" (Footnote 26 on page 3-46) anticipated from development of the surrounding area in Brisbane.

11-20

Instead of addressing this alternative route, the Draft EIS/EIR defers its analysis until the "need for possible future planning of a branch line of Third Street light rail is established" (page S-7), because this alternative "would need subsequent conceptual engineering and environmental analysis if proposed at a future date" (page S-4). Yet, the Candlestick Point alternative had been proposed earlier, in the 1993 Bayshore Transit Study, and it appears to be needed according to the recent transit impact analysis conducted as part of the Candlestick Point Stadium and Retail/Entertainment Center EIR (page 3-33). If a final determination may not be possible until that EIR is complete (Footnote 24 on page 3-37, Footnote

11-21

26 on page 3-46), then it may be premature to certify the Third Street Light Rail EIR.

An analysis of this "environmentally superior alternative" (page 6-4) is necessary to adequately evaluate the proposed Third Street Light Rail in terms of the project goals and objectives stated on pages S-2 and S-3, particularly:

3. Economic Revitalization/Development Goal. Design transportation improvements that support economic revitalization and development initiatives within the Corridor.
5. Environmental Goal. Provide transit improvements that enhance and preserve the social and physical environment and minimize potential negative impacts during construction and operation of the line.
6. Financial Goal. Implement transit improvements that provide for the efficient use of limited financial resources.
7. Community Acceptance and Political Support Goal. Provide a transportation system that reflects the needs and desires of Corridor residents and business people and is compatible with the City's planning initiatives.

11-22

In addition, we suggest the following specific corrections/clarifications:

Page S-16 How does Table S-5 conclude that the Bayshore/Arleta intersection will be mitigated to LOS D or better, as required by City policy (page 3-15), when Footnote 26 (page 3-46) states that the traffic projections do not take into their accounting of cumulative development that anticipated just over the City limits in Brisbane?

11-23

Page S-21 See comments for page S-16.

Page 2-21 The description of the light rail alignment shifting to the east side of the Bayshore Boulevard right-of-way south of the Highway 101 overcrossing is inconsistent with page 2-58 (Figure 2-8) and page 2-45 (second bullet).

11-24

Page 2-45 The southeast corner of Bayshore Boulevard and Sunnydale Avenue is not vacant; it is developed with a car wash facility (page 2-21).

11-25

Page 3-38 Table 3-9 should include in its comments that the southbound Bayshore Boulevard left turn to Hester Avenue will operate at LOS F as stated on page 3-42.

11-26

Pages 4-55 & 4-56 The topographical information is not meaningful unless the elevations described in the text and Table 4-10 are translated into existing percent grades for appropriate sections of the proposed alignment, particularly in comparison to the 7% maximum grade acceptable for light rail (page 2-21).

11-27

Pages 5-41 & 5-42 Section 5.7.3, Energy Considerations, fails to quantify the greater energy consumption required for the light rail to operate on steeper grades. Thus, it also does not identify potential mitigation measures, such as alternate routes with less steep grades.

11-28

Thank you again for this opportunity to comment on the Draft Environmental Impact Statement/Report.

Sincerely,



Robin Leiter
City Manager

cc: ✓ Brian J. Kalahar, Planning Department, City and County of San Francisco,
1660 Mission Street, San Francisco, CA 94103-2414
Carmen Clark, San Francisco Transportation Authority, 100 Van Ness
Avenue, 25th Floor, San Francisco, CA 94102
Geoffrey Kline, CCAG CMP Program Manager, City/County Association of
Governments of San Mateo County, 10 Twin Dolphin Drive, Suite
C-200, Redwood City, CA 94065-1036

Comment Letter 11

Robin Leiter, City Manager
City of Brisbane
50 Park Lane
Brisbane, CA 94005

Response 11-1

The public comment period ended on May 19, 1998. There has been extensive opportunities for public input on alternatives and the environmental review process since the Systems Planning Study began in 1991, including numerous Technical Advisory Committee (TAC), Community Advisory Group (CAG), and neighborhood meetings. The City is grateful for Brisbane's statement of support and cooperation.

Response 11-2

While the implementation of light rail would reduce the traffic capacity of Third Street and Bayshore Boulevard, most, but not all, of Third Street's and Bayshore Boulevard's signalized intersections would continue to function acceptably with the removal of one traffic lane in each direction, as discussed on page 3-41 of the DEIS/DEIR. Implementation of light rail would result in unacceptable traffic operations at the Third Street/Evans Street intersection, which would be mitigated to less-than-significant conditions (see page 3-46 of the DEIS/DEIR). On June 23, 1998, the PTC selected the Fourth Street bridge and the mixed-flow options as part of the Locally Preferred Alternative. As a result, traffic-related impacts resulting from the Third and Fourth Street bridge option and the single lane options along the Third Street Commercial Lane would not occur. Other intersections expected to operate unacceptably with or without the Project by 2015 are: Third Street/Cesar Chavez Street, Third Street/King Street, and Fourth Street/King Street.

In response to comments and concerns, modifications along Bayshore Boulevard have been developed to improve traffic capacity at the Bayshore/Arleta-Blanken intersection and at the Highway 101 overcrossing. These modifications, which include minor realignments and circulation revisions, are described further under "Staff Initiated Changes". They would not result in new significant impacts or obviate the need for mitigation at the other locations.

Response 11-3

The construction impacts for the three-block long segment involving the construction of a retained cut section on Third Street between Jamestown and Meade Avenues, and the three-block segment involving the construction of a retained fill section on Bayshore Boulevard between Hester and Blanken Avenues would be somewhat greater - i.e., construction impacts of longer duration - than the rest of the project. This is because it would take longer to adjust conflicting underground utility lines, excavate the cut section, form and pour the concrete retaining walls and then backfill and re-pave the adjacent street. These construction impacts would last about 12-15 months. Temporary construction impacts of the magnitude anticipated at this location or other locations along the IOS alignment are not generally considered to be significant. Temporary and intermittent construction activity is a common feature of the urban environment.

As noted in Section E, Staff Initiated Changes, the intersection of Third/Key will remain open to pedestrian cross traffic. A station will be located in the retained cut between Key and LeConte Avenues, allowing the proposed station between Ingerson and Jamestown to be deleted. As a result, the proposed right-of-way acquisitions at the intersection of Third Street and Jamestown will no longer be necessary. See Section E, Staff Initiated Changes.

Response 11-4

The DEIS/DEIR identifies and evaluates credible mitigation measures for potential traffic and transit impacts for Segment 1 of the IOS. However, since issuance of the DEIS/DEIR, the following improved traffic and transit circulation concepts were developed for Segment 1.

As noted in the “Staff Initiated Changes,” the proposed light rail alignment and traffic circulation in the area of the Highway 101 overcrossing has been revised (refer to “Staff Initiated Changes” E-3 and revised Figure 2-8). The revision, which would add turning lanes, provide lane delineation, and add new retaining walls, would improve the southbound left-turn movement to LOS D or better conditions during the a.m. and p.m. peak hours in 2015. The revised improvements were deemed feasible in the *US 101 and Third Street Overcrossing Draft Project Study Report/Project Report* (April 1998), available for review at the San Francisco Planning Department.

“Staff Initiated Change” E-2 redesigns the Bayshore Boulevard/Arleta-Blanken Avenues intersection to accommodate a center high-platform between Arleta and a re-aligned Blanken (Blanken would be reconfigured to intersect Bayshore at a 90-degree angle). New coordinated traffic signals would be placed at Bayshore/Blanken and Bayshore/Arleta, and the coordinated system would improve operations to LOS C conditions during both the a.m. and p.m. peak hours in 2015. This modification also retain the current routings of the 9X and 9BX bus lines.

Response 11-5

The 9X/9AX/9BX San Bruno Expresses would provide faster service from Visitacion Valley to Chinatown than the IOS, but they would not provide faster service than the New Central Subway. In addition, the San Bruno Expresses only provide service during weekday peak hours and midday. Table 3-7 (p. 3-31) indicates an in-vehicle travel time between Visitacion Valley (Bayshore and Arleta) and Chinatown (Stockton and Clay) of 30 minutes on the New Central Subway. The 9X travel time (not shown) would be 35 minutes, while the time on the 15-Third bus would be 49 minutes. It should also be noted that the New Central Subway would achieve the faster travel time, while also offering access and transfer opportunities at 16 intermediate stations in Bayview Hunters Point, the Central Waterfront and Mission Bay. The 9X, on the other hand, operates on the freeway (subject to unpredictable traffic conditions) and does not stop north of Visitacion Valley until Sixth and Bryant Streets.

Response 11-6

Section 6.5 of the DEIS/DEIR describes an Environmentally Superior Alternative among the alternatives analyzed in the document. Any consideration of an alignment beyond the County line was precluded by the San Francisco County Transportation Authority (File #PPC110491) in December 1991. Alignments to Candlestick Point or along Geneva Avenue were not included in the alternatives described in the *Bayshore Transit Study*, in part, because they would not serve the transportation needs of the Bayview Hunters Point and Visitacion Valley communities. The

environmentally superior alternative described in the DEIS/DEIR would not result in any project-specific significant environmental impacts that could not be avoided with mitigation measures described in the DEIS/DEIR.

Response 11-7

The Bayshore Station was proposed as the terminus of the Third Street light rail line on the basis of previous studies and decisions. In 1991, the San Francisco County Transportation Authority approved File #PPC110491 that prohibited MUNI from extending service beyond the County line.

A Gilman/Candlestick route option that would have provided service to Candlestick Point and Executive Park was presented by Tuntex during the Systems Planning Phase at community meetings. Both Visitacion Valley and Bayview community representatives objected to this route because it would not serve their communities' needs. This route option would cut off service to a part of the Bayview community and would require the 15 bus to continue service. In 1994, the Public Transportation Commission fixed the southern terminus of the Third Street light rail line at the Caltrain Bayshore Station, although the northern terminals were not designated at that time. On July 8, 1997, the PTC defined the alternatives and design options that would be carried forward for environmental review in the DEIS/DEIR (refer to page 2-6).

The DEIS/DEIR discusses possible future branches of the light rail line, which could include extensions to serve development in Brisbane or at Candlestick Point. These extensions would not be precluded by the proposed IOS alignment and terminus, although funding has not been identified for any future extensions. This EIS/EIR addresses a locally funded project that would terminate at the County line and meet the needs of Visitacion Valley, Bayview Hunters Point, and Mission Bay.

Response 11-8

No significant construction impacts or significant project-specific impacts associated with light rail operation have been identified (see Responses 11-3, 11-4, 11-9 and 11-10 for Segments 1 and 2 south of Gilman Avenue).

Response 11-9

Construction of the light rail alignment at the Highway 101 overcrossing will take at least one year to complete. Construction of the alignment in other segments that are confined to street right-of-way could take a minimum of two weeks (and possibly more) per side of street per block (sixth paragraph of page 2-59). The additional construction time required for the Highway 101 overcrossing segment is due to the installation of retaining walls and new ramps, as well as retained cut and fill sections.

The DEIS/DEIR indicates on page 3-40 that construction would occur first on one side of the street than the other to minimize traffic disruption. In addition, the DEIS/DEIR states at the top of page 3-51 that "As discussed previously, travel speeds for both automobiles and trucks would be slightly (emphasis added) slower along Bayshore Boulevard and Third Street during construction of each of the three segments of the IOS. During construction of the IOS, the parking lanes along Bayshore Boulevard would at times be converted into traffic lanes to enable two travel lanes in each direction. This would prohibit the use of curb lanes for parking of trucks to load and unload goods. Trucks would be required to park on nearby local side streets, or elsewhere outside the

construction zone.” Temporary construction impacts of the magnitude anticipated at this location or other locations along the IOS alignment are not generally considered significant. Temporary and intermittent construction activity is a common feature of the urban environment.

On page 3-32, the DEIS/DEIR states, that reducing the number of lanes along Bayshore Boulevard and Third Street from three to two through lanes in each direction would only marginally affect intersection performance and increase Corridor travel times, that is, unless the second lane is frequently blocked by buses stopping at bus stops.

The DEIS/DEIR states in the fifth paragraph on page 3-33 that “...the retained cut section between Meade and Jamestown Avenues would prohibit inclusion of a station within this area.” This station has been relocated between LeConte and Key Avenues.

In the middle of page 3-41, the DEIS/DEIR states that “The DPT (City’s Department of Parking and Traffic) determined that all new signalized intersections would perform at LOS C or better conditions in 2015 during both the a.m. and p.m. peak periods.....Generally, it was determined that most, but not all, of Bayshore Boulevard’s and Third Street’s intersections would continue to function acceptably with the removal of one traffic lane in each direction. .. Thus removal of the inside lanes and installation of exclusive left-turn lanes at major intersections would continue to enable acceptable traffic flow at most of the study intersections.”

Since issuance of the DEIS/DEIR, improved traffic and transit circulation concepts were developed for Segments 1 and 2 to reduce potential impacts after construction. These include intersection improvements at Bayshore Boulevard/Arleta-Blanken Avenues, improvements on and near the Highway 101 overcrossing, and changes on Third Street at Le Conte Avenue, Keith Street, and Key Avenue (refer to “Staff Initiated Changes” E-2, E-3, and E-4 and Responses 11-4, 11-13, 11-14, and 11-15). It should be noted that the Light Rail Alternative would not cause any traffic related impacts in Segments 1 and 2 that cannot be mitigated to a less-than-significant level. Since the Light Rail Alternative would reduce the traffic-carrying capacity of Bayshore Boulevard and Third Street in comparison to the No Project and No Build/TSM Alternatives decision-makers will weigh this cumulative effect against the Light Rail Alternative's potential benefits.

Response 11-10

As noted in the “Staff Initiated Changes,” the Bayshore Boulevard/Arleta-Blanken Avenues intersection is proposed to be modified to accommodate a center high-platform between Arleta and a re-aligned Blanken. Blanken would be reconfigured from it’s skewed alignment to intersect Bayshore at a 90-degree angle. Although the redesign of this intersection is currently being studied, no new significant impacts are anticipated. New coordinated traffic signals would be placed at Bayshore/Blanken and Bayshore/Arleta, and the coordinated system would improve operations to LOS C conditions during both the a.m. and p.m. peak hours in 2015 (Department of Parking and Traffic Memorandum, Jack Fleck and Andre Chandra, July 9, 1998 available for review at the San Francisco Planning Department). This modification also retains the current routings of the 9X and 9BX bus lines. Refer to E-2, “Staff Initiated Changes”.

Table 3-9 on page 3-38, the third row is revised.

TABLE 3-9

INTERSECTIONS EXPECTED TO OPERATE AT LOS D, E, OR F CONDITIONS
2015 UNMITIGATED CONDITIONS
(Revised July 24, 1998)

INTERSECTION	A.M. PEAK HOUR		P.M. PEAK HOUR		COMMENTS
	NO PROJECT & NO BUILD/TSM	LRT	NO PROJECT & NO BUILD/TSM	LRT	
Bayshore/Arleta-Blanken	D C	F C	E C	E C	

Table 3-10 on page 3-39 has been revised to reflect the higher vehicular speeds that would occur as a result of the above improvements to the Bayshore/Arleta-Blanken intersection re-alignment (for the Light Rail Alternative only). All peak hour travel speeds would be between 15 and 19 mile per hour, resulting in acceptable LOS C conditions.

TABLE 3-10

TRAFFIC TRAVEL SPEED COMPARISON
(Revised July 24, 1998)

ROUTE	PEAK PERIOD	AVERAGE SPEED (mph) / LOS					
		EXISTING	2015 NO PROJECT & NO BLD/TSM	LIGHT RAIL OPTION 1 (2 LANES)	LIGHT RAIL OPTION 2 (1 LANE)	LIGHT RAIL OPTION 3 (1 LANE HYBRID)	LIGHT RAIL OPTION 4 (MIXED FLOW)
Bayshore Boulevard:							
Sunnydale to Hester	A.M.	21 / B	16 / C	15 / C	15 / C	15 / C	15 / C
	P.M.	18 / C	10 / D	18 / C	18 / C	18 / C	18 / C
Hester to Sunnydale	A.M.	24 / B	18 / C	19 / C	19 / C	19 / C	19 / C
	P.M.	23 / B	15 / C	17 / C	17 / C	17 / C	17 / C
Third Street:							
Jamestown to 16th	A.M.	28 / A	22 / B	16 / C	< 5 / F	< 5 / F	15 / C
	P.M.	23 / B	22 / B	16 / C	< 5 / F	< 5 / F	15 / C
16th to Jamestown	A.M.	25 / A	22 / B	10 / D	< 5 / F	< 5 / F	10 / D
	P.M.	24 / B	18 / C	9 / D	< 5 / F	< 5 / F	9 / D

Source: City and County of San Francisco, Department of Parking and Traffic, July 1998

On page 3-39 the third to last bullet point is deleted.

- In Segment 1, Bayshore Boulevard/Arleta-Blanken Avenue would degrade to LOS E during the p.m. peak hour;

On page 3-42 the last paragraph is revised.

All of the intersections would perform at LOS D or better. ~~except the Bayshore Boulevard/Arleta-Blanken Avenue intersection. Due to traffic diverting from Tunnel Avenue, this intersection would degrade from LOS D (under cumulative No Project and No Build/TSM Alternative) to LOS F conditions during the a.m. peak hour. It would operate at LOS E during the p.m. peak hour for all alternatives. It should be noted...~~

On page 3-43 the first paragraph is revised.

~~Due to the reduced number of through lanes, traffic re-routing and deteriorated condition at the Arleta-Blanken Avenue intersection, the travel speeds on Bayshore Boulevard would decrease. Average northbound travel speeds would be 10 miles per hour (mph) (LOS D) during the a.m. peak hour and 7 mph (LOS E) during the p.m. peak hour. In the southbound direction, average travel speeds would be 16 mph (LOS C) during the a.m. peak hour and 15 mph (LOS C) during the p.m. peak hour. As a result of the proposed improvements at the Arleta-Blanken Avenues intersection, peak hour travel speeds Bayshore Boulevard would be between 15 and 19 mile per hour, resulting in acceptable LOS C conditions.~~

On page 3-46 the first bullet is deleted.

~~Bayshore Boulevard/Arleta-Blanken Avenues. By 2015, this intersection's performance would degrade to LOS F due to the addition of a traffic signal phase serving a new southbound left turn lane (into Blanken Avenue), which would be needed to accommodate turns diverted from the elimination of the left turn lane to Tunnel Avenue. Eventually, left turns from eastbound Arleta Avenue to northbound Bayshore Boulevard should be prohibited, thereby eliminating the existing signal phase serving Arleta. In the future, this would improve the intersection to LOS D conditions, but would require re-routing MUNI's 9X and 9BX lines along a parallel alternative route. It is recommended that, when necessary, a break in Bayshore Boulevard's median at Raymond Avenue be created to allow eastbound to northbound left turns from Raymond Avenue instead of Arleta Avenue. This would require traffic, including MUNI buses, to re-route along a two-block stretch of Raymond Avenue.²⁶~~

Note that the associated footnote was also removed. Revisions also were made in the Executive Summary to reflect the above changes.

On page S-13 the first paragraph is revised.

By 2015, due to increased background traffic levels, ~~eight~~seven intersections in the Corridor will be operating at congested conditions (LOS E or F) during weekday peak periods. Therefore, the impacts to the intersections would be considered cumulative unavoidable adverse impacts. ~~Two~~One of intersections (Fourth/Brannan) ...

Table S-5 on page S-15 is revised.

On page 3-48 Table 3-12 is revised to reflect the higher vehicular speeds that would occur as a result of the above improvements to the Bayshore/Arleta-Blanken intersection re-alignment (for the

TABLE S-5 (Cont.)

SUMMARY OF MAJOR TRANSPORTATION-RELATED ENVIRONMENTAL IMPACTS FOR THE NO PROJECT, NO BUILD/TSM, AND LIGHT RAIL ALTERNATIVES

(Revised July 24, 1998)

Transportation Area	Light Rail Alternative—Initial Operating Segment	Light Rail Alternative—New Central Subway	No Project Alternative	No Build/TSM Alternative
Traffic	<p>Implementation of light rail would contribute to the LOS E and F conditions expected at three intersections also significantly impacted by the No Project Alternative under cumulative conditions: Third/Cesar Chavez, Third/King; and Fourth/King. In addition, two <u>one</u> other intersections would be significantly affected by the IOS: Third/Evans, and Third/Berry (for Mission Bay Option-2 only). <i>With mitigation (e.g., lane striping, parking removal, and/or other measures), impacts would be less than significant for the above intersections, except Third/Cesar Chavez, Third/King and Fourth/King, which could not be feasibly mitigated (cumulative unavoidable adverse impacts).</i></p> <p>Additionally, the one-lane design options in the Third Street commercial core would result in LOS F conditions (a significant impact) at all intersections throughout the commercial core, resulting in extreme congestion and traffic diversion. <i>This impact cannot be mitigated feasibly.</i></p>	<p>Implementation of the New Central Subway would contribute to LOS E and F conditions expected at four intersections also significantly impacted by the No Project Alternative under cumulative conditions: Third/Townsend, Third/Brannan, Fourth/Brannan, and Fourth/Bryant. In addition, under the New Central Subway, the Third/Bryant intersection would degrade to LOS F. <i>With mitigation (e.g., lane striping, parking removal, and/or other measures), impacts would be less than significant at Third/Bryant and Fourth/Brannan, but the other three intersections could not be feasibly mitigated (cumulative unavoidable significant impacts).</i></p>	<p>Level of Service E or F conditions would exist at eight intersections under cumulative conditions: Bayshore at Arleta; Third at Cesar Chavez, King, Townsend, and Brannan; and Fourth at King, Bryant. <i>With mitigation (e.g., lane striping, parking removal, and/or other measures), impacts at Bayshore/Arleta and Fourth/Brannan would be less than significant.</i> The remaining six intersections could not be reasonably mitigated, and therefore the impacts are considered cumulative adverse impacts.</p>	<p>Level of Service E or F conditions would exist at eight intersections under cumulative conditions: Bayshore at Arleta; Third at Cesar Chavez, King, Townsend, and Brannan; and Fourth at King, Brannan, and Bryant. <i>With mitigation (e.g., lane striping, parking removal, and/or other measures), impacts at Bayshore/Arleta and Fourth/Brannan would be less than significant.</i> The remaining six intersections could not be reasonably mitigated, and therefore the impacts are considered cumulative unavoidable adverse impacts.</p>

TABLE 3-12

MITIGATED CONDITIONS TRAVEL SPEED COMPARISON
(Revised July 24, 1998)

ROUTE	PEAK PERIOD	AVERAGE SPEED (mph)/LOS			
		LIGHT RAIL OPTION 1 (Two Lanes)		LIGHT RAIL OPTION 4 (Mixed Flow)	
		Unmitigated	Mitigated	Unmitigated	Mitigated
Bayshore Boulevard:					
Sunnydale to Hester	A.M.	10/D <u>15 / C</u>	13/C <u>No mitigation</u>	Same as Option 1	
	P.M.	7/E <u>18 / C</u>	9/D <u>No mitigation</u>	Same as Option 1	
Hester to Sunnydale	A.M.	16/C <u>19 / C</u>	17/C <u>No mitigation</u>	Same as Option 1	
	P.M.	15/C <u>17 / C</u>	16/C <u>No mitigation</u>	Same as Option 1	
Third Street:					
Jamestown to 16th	A.M.	16/C	17/C	15/C	16/C
	P.M.	16/C	18/C	15/C	17/C
16th to Jamestown	A.M.	10/D	16/C	10/D	15/C
	P.M.	9/D	16/C	9/D	15/C
Source: City and County of San Francisco, Department of Parking and Traffic, December 1997 , July 1998					

Light Rail Alternative only). All peak hour travel speeds would be between 15 and 19 mile per hour, resulting in acceptable LOS C conditions along Bayshore Boulevard.

Response 11-11

See Response 11-10

Response 11-12

See Response 11-10

Response 11-13

As noted in the “Staff Initiated Changes,” the proposed light rail alignment and traffic circulation in the area of the Highway 101 overcrossing has been revised (refer to E-3 “Staff Initiated Changes” and revised Figure 2-8). The revision, which would add turning lanes, provide lane delineation, and add new retaining walls, would improve the southbound left-turn movement to LOS D or better conditions during the a.m. and p.m. peak hours in 2015. The revised improvements were deemed feasible in the *US 101 and Third Street Overcrossing Draft Project Study Report/Project Report* (April 1998), available for review at the San Francisco Planning Department.

Response 11-14

See Response 11-13. The modified intersection geometry, deemed feasible in the *US 101 and Third Street Overcrossing Draft Project Study Report/Project Report* (April 1998), would provide

four southbound approach lanes. The first, or inside, lane would serve left-turn movements to northbound Bayshore Boulevard and US 101 only. The next lane would serve left-turn movements to northbound Third Street and straight-through movements to Hester Avenue. The third and fourth lanes would serve right-turn movements to southbound Bayshore Boulevard. These improvements would result in LOS D or better conditions for the southbound approach during the a.m. and p.m. peak hours in 2015.

Response 11-15

The DEIS/DEIR identifies and evaluates credible mitigation measures for potential traffic and transit impacts for Segments 1 and 2 of the IOS. However, since issuance of the DEIS/DEIR, improved traffic and transit circulation concepts were developed for portions of each of these segments. The “Staff Initiated Changes” for Segment 1 are described in Response 11-4. The following improvements are proposed for Segment 2.

As noted in the “Staff Initiated Changes,” after passing northerly over Highway 101, the revised light rail alignment would descend onto Third Street in a retained cut which would reduce the steep nine percent grade to five to eight percent (refer to E-3 and E-4 of “Staff Initiated Changes” and revised Figure 2-8). The retained cut would be placed in the middle of Third Street 1.5 to 2.0 meters (6 to 8 feet) below street level and extend for 275 meters (900 feet) eliminating left turn movements between Third Street and Le Conte Avenue, Keith Street, and Key Avenue. Access to Third Street for residents living along Le Conte, Keith, and Key west of Third would be replaced by extending Keith northeast along the existing Caltrans right-of-way to the intersection of Third/Jamestown. The proposed station location at Jamestown would be changed to Third between Le Conte and Key.

Relocation of the Jamestown station would reduce the need for a shuttle bus linking the Meade/LeConte Avenues neighborhood area with the proposed station. However, it is still recommended that MUNI run a shuttle bus route to assist patrons in accessing the light rail line and monitor its use to determine its long-term applicability.

Response 11-16

Refer to Response 11-5.

Response 11-17

Comment noted. The IOS results in a net increase in Corridor ridership of 2,450 per day. However, it is correct that during operation of the IOS, some patrons who formerly used the 15-line will switch to the 9X. Many of these riders will switch back to the light rail line when the New Central Subway is operational. The Third Street Light Rail Project, which is evaluated in this DEIS/DEIR is the complete two-phase project, including the New Central Subway. The Initial Operating Segment, is, as the name implies, an initial segment which does not offer the full benefits of the complete project.

Response 11-18

As indicated in E-1 of “Staff Initiated Changes,” an alternate site plan that would replace the parking structure with a smaller, surface parking area is also being considered for the Caltrain

Bayshore Station area. The smaller, surface parking area would obviate the need to relocate the UPRR spur track. In either case, three business relocations and five private parcel acquisitions would occur under the Uniform Relocation Act. These station area plans would not preclude future light rail extensions as discussed in Response 11-7.

Response 11-19

Refer to Response 11-7. A Gilman/Candlestick route option that would have provided service to Candlestick Point and Executive Park was presented by Tuntex during the Systems Planning Phase. Both Visitacion Valley and Bayview community representatives objected to this route because it would not serve their communities' needs.

Response 11-20

Refer to Response 11-7. The IOS would be constructed with local funds beginning in 2000. Brisbane's proposal for a new Highway 101 interchange, intermodal station, Geneva Avenue extension, and light rail extension lack funding and are not expected to be funded in time for construction of the IOS. Nonetheless, a light rail extension along Geneva Avenue to the Balboa Park BART Station would not be precluded with the proposed Bayshore Station design, if Brisbane were to develop such a project.

Response 11-21

Refer to Responses 11-7, 11-19, and 11-20.

Response 11-22

The goals and objectives described in the DEIS/DEIR pertain to economic revitalization, preservation of the environment, and community support within the Corridor. These goals would be met by the Light Rail Alternative, which is identified as the Environmentally Superior Alternative

Response 11-23

See Response 11-10

Response 11-24

As indicated on page 2-21 in the DEIS/DEIR, approaching the Highway 101 overcrossing from the south, the light rail alignment would shift to the east in the Bayshore Boulevard right-of-way. The shift would allow northbound vehicles to be segregated into Third Street-bound traffic and Highway 101/Bayshore-bound traffic. This description is consistent with Figure 2-8 and the second bullet at the bottom of page 2-45.

Response 11-25

Although the exact location for the substation in the vicinity of the southeast corner of Bayshore/Sunnydale has not been determined, the comment is correct that a car wash currently exists on this corner. The bullet point in the first paragraph of page 2-45 is revised.

- Southeast corner of Bayshore/Sunnydale (in the area of the existing car wash)

Response 11-26

Table 3-9 reports overall intersection service levels, not service levels for individual traffic movements. As noted, page 3-42 states that the southbound left-turn movement from Bayshore Boulevard to Hester Avenue would function at LOS F if only one left-turn lane was provided. However, two left-turns are being proposed as part of the “Staff Initiated Changes” to enable an acceptable level of service for this movement.

Response 11-27

On page 2-21, paragraph 3, the DEIS/DEIR states that the maximum gradient along Bayshore Boulevard is nine percent (just south of the Highway 101 overcrossing). To reduce the gradient to seven percent, a retained fill section 215 meters long would be constructed. Similarly, on page 2-21, paragraph 5, the text indicates that a retained cut would be constructed on Third Street immediately north of the Highway 101 overcrossing to reduce the gradient from nine to seven percent. These segments represent the only locations along the IOS alignment that have gradients greater than seven percent.

Response 11-28

On page 5-41, Table 5-4 presents energy consumption calculations for the Light Rail Alternative options. The calculations were done according to the requisite FTA formula that does not differentiate between sizes of vehicles, such as the energy consumption of standard versus articulated diesel buses. Since current Third Street service is largely operated with articulated diesel buses, the comparisons presented in this table are approximate and represent regional energy consumption differences in BTUs per year. At this gross scale, annualized vehicle miles are multiplied by a specific energy consumption factor for each mode to ascertain significant energy consumption differences. As stated on page 5-42, the Light Rail Alternative requires no additional Hetch Hetchy generating or transmission capacity. Therefore, according to FTA guidelines, converting the 15-Third bus line to light rail would not represent a significant energy impact to meet power demands.

Under the FTA formula, vehicle miles traveled is the determining variable in the equation. Consequently, operating light rail over a more circuitous route would increase the BTUs required for the Light Rail Alternative. The gradient of an alignment would make no appreciable difference in this calculation.



State of California

GOVERNOR'S OFFICE OF PLANNING AND RESEARCH

1400 TENTH STREET
SACRAMENTO 95814

PETE WILSON
GOVERNOR

PAUL F MINER
DIRECTOR

Informational

May 18, 1998

BRYAN KALAHAR
SAN FRANCISCO PLANNING DEPT.
1660 MISSION STREET
SAN FRANCISCO, CA 94602

Subject: THIRD STREET LIGHT RAIL PROJECT, 96.281E SCH #: 96102097

Dear BRYAN KALAHAR:

The State Clearinghouse submitted the above named environmental document to selected state agencies for review. The review period is closed and none of the state agencies have comments. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call Kristen Derscheid at (916) 445-0613 if you have any questions regarding the environmental review process. When contacting the Clearinghouse in this matter, please use the eight-digit State Clearinghouse number so that we may respond promptly.

Sincerely,

ANTERO A. RIVASPLATA
Chief, State Clearinghouse

Notice of Completion

Appendix F

See NOTE below

Mail to: State Clearinghouse, 1400 Tenth Street, Sacramento, CA 95814 916445-0613

SCH # 96102097

Project Title: THIRD STREET LIGHT RAIL PROJECT

Lead Agency: SAN FRANCISCO PLANNING DEPT

Contact Person: BRYAN F. ALABILL

Street Address: 1660 MISSION ST.

Phone: (415) 558-6359

City: SAN FRANCISCO

Zip: 94102

County: SAN FRANCISCO

Project Location

County: SAN FRANCISCO

City/Nearest Community: SAN FRANCISCO

Cross Street: THIRD ST / BAYSHORE BLVD.

Total Acres: 4.4

Assessor's Parcel No. A1A

Section 36 Top EAST

Range: 1 Base: 1

Within 2 Miles: State Hwy #: 101 & 280

Waterways: SEEBAY

Airports: SFO

Railways: CENTRALIN

Schools:

Document Type

- CEQA: NOP Supplement/Subproject MEPA: NOI Other: Joint Document
- Early Cons EA (Prior SCH No.) EA Final Document
- Neg Dec Other Draft EIS FONSI Other
- Draft EIR

FILED
APR 9 1998
STATE CLEARINGHOUSE

Local Action Type

- General Plan Update Specific Plan Rezone Annexation
- General Plan Amendment Master Plan Precinct Redevelopment
- General Plan Element Planned Unit Development Use Permit Capital Permit
- Community Plan Site Plan Land Division (Subdivision, Parcel Map, Tract Map, etc.) Other TRAIL EXTENSIONS

Development Type

- Residential: Units _____ Acres _____
- Office: Sq. ft. _____ Acres _____ Employees _____
- Commercial: Sq. ft. _____ Acres _____ Employees _____
- Industrial: Sq. ft. _____ Acres _____ Employees _____
- Educational _____
- Recreational _____
- Waste Facilities: Type _____ MGD
- Transportation: Type LIGHT RAIL EXTENSION
- Mining: Mineral _____
- Power: Type _____
- Waste Treatment Type _____
- Hazardous Waste: Type _____
- Other _____

Project Issues Discussed in Document

- Aesthetic/Visual Flood Plain/Flooding Schools/Universities Water Quality
- Agricultural Land Forest Land/Fire Hazard Septic Systems Water Supply/Groundwater
- Air Quality Geologic/Seismic Sewer Capacity Wetland/Riparian
- Archeological/Historical Minerals Soil Erosion/Compaction/Grading Wildlife
- Coastal Zone Noise Solid Waste Growth Inducing
- Drainage/Absorption Population/Housing Balance Toxic/Hazardous Landuse
- Economic/Job Public Services/Facilities Traffic/Circulation Cumulative Effects
- Fiscal Recreation/Parks Vegetation Other _____

Present Land Use/Zoning/General Plan Use

PUBLIC STREETS

Project Description

The proposed project would extend MUNI light rail service via Third Street and Bayshore Blvd. to the southeastern portion of San Francisco. Later phases would extend service underground into Chinatown. Alternatives are considered.

NOTE: State Clearinghouse will review this document.

State Clearinghouse Contact: Mr. Chris Belsky (916) 445-0613

Project Sent to the following State Agencies

State Review Began: 4.3.98

Dept. Review to Agency: 5.11

Agency Rev to SCH: 5.15

SCH COMPLIANCE: 5.18

- Resources
- Boating
- Coastal Comm
- Coastal Conserv
- Colorado Rvr Bd
- Conservation
- Fish & Game # 3
- Delta Protection
- Forestry
- Parks & Rec OHP
- Reclamation
- BCDC
- DWR
- OES
- Bus Transp Hou
- Aeronautics
- CHP
- Caltrans # 4
- Trans Planning
- Housing & Devel
- Health & Welfare
- Drinking, 120
- State/Consumer Svcs
- General Services
- CalVEPA
- ARB
- CA Waste Mgmt Bd
- SWRCB: Grant
- SWRCB: Delta
- SWRCB: Wtr Quality
- SWRCB: Wtr Rights
- Reg. WQCB # 2
- DTSC/CTC
- Yth/Adlt Corrections
- Corrections
- Independent Comm
- Energy Comm
- NAHC
- PUC
- Santa Mn Mtn
- State Lands Comm
- Tahoe Rgl Plan

Please note SCH Number on all Comments

96102097

Please forward late comments directly to the Lead Agency

AQMD/AICD 2 (Resources: 414)

Attachment

B. Special Interest Groups

KAY & MERKLE
ATTORNEYS AT LAW
100 THE EMBARCADERO
PENTHOUSE
SAN FRANCISCO, CALIFORNIA 94105-1217

12

TELEPHONE: (415) 357-1200
FACSIMILE: (415) 512-9277

May 19, 1998

Hilary E. Gitelman
Environmental Review Officer
San Francisco Planning Department
1660 Mission Street
San Francisco, California 94103

Re: Third Street Light Rail Draft EIS/EIR

Dear Ms. Gitelman:

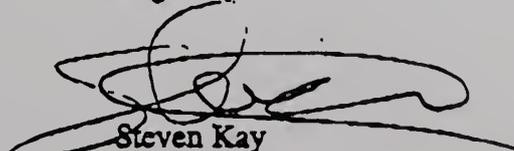
We write to provide you with 49ers Stadium Associates' response to the April 3, 1998 draft EIS/EIR (the "Report") for the light rail project contemplated for Third Street in San Francisco.

Our principal concern is that the Report fails to address or consider any alternatives to the contemplated Third Street route. As you are aware, an analysis of alternatives is an important component of any EIS/EIR. This process ensures that all viable options have been investigated and that the alternative with the combined maximum benefit for and least negative impact on the surrounding environment has been identified. We do not believe the draft Report supplies sufficient information for such an informed choice, as it does not consider the alternatives sufficiently. We note that prior public transit studies have been conducted in the area, most notably Muni's Bayshore Transit Study conducted in 1993. The route identified in that report warrants investigation, and comparison with the Third Street route. 12-1

49ers Stadium Associates does not believe that the Third Street route, which is a "dead end" line, provides the best service to 3COM Park, or the contemplated new stadium and mall complex, nor does it adequately serve any of the other existing or potential developments in and around the stadium site and to the south. 12-2

We would propose that all viable alternatives be considered at this juncture so as to avoid an investment in a route that may prove inferior.

Regards,



Steven Kay

B. SPECIAL INTEREST GROUPS

Comment Letter 12

Steven Kay
Kay & Merkle
100 The Embarcadero, Penthouse
San Francisco, CA 94105-1217

Response 12-1

Responses 11-6, 11-7, and 11-19 indicate the reasons for maintaining the light rail alignment through Bayview Hunters Point and Visitacion Valley within the limits of the City and County of San Francisco. For the purposes of CEQA, a No Project Alternative was included in the DEIS/DEIR as well as an FTA-required No Build/TSM Alternative that expanded existing bus service to meet 2015 demand. These less costly alternatives were compared with the Light Rail Alternative to determine which best conformed with Project goals and was the environmentally superior alternative.

Response 12-2

Comment noted. The Third Street Light Rail Project would provide an essential trunk line to the vicinity of Candlestick Point. A spur line or extension could be added to the trunk line, when a stadium-mall project warrants. (See Response 13-8.)

GOLDFARB & LIPMAN

One Montgomery Street
Twenty-Third Floor
San Francisco
California 94104

415 788-6336
415 788-0999 FAX

May 18, 1998

RECEIVED

MAY 19 1998

CITY & COUNTY OF S.F.,
DEPT. OF CITY PLANNING
ADMINISTRATION

#13

VIA HAND DELIVERY

Hilary E. Gitelman
Environmental Review Officer
San Francisco Planning Department
1660 Mission Street
San Francisco, CA 94103-2414

Re: Third Street Light Rail Draft EIS/EIR
96.281E, State Clearinghouse No. 96102027

Dear Ms. Gitelman:

This letter comments, on behalf of Universal Paragon Corporation, on the April 3, 1998 draft EIS/EIR for the Third Street Light Rail Project.

Our main concern is that the draft does not analyze a reasonable range of alternatives. In fact, the draft does not analyze any alternative light rail route. Not only does alternative routing seem potentially feasible, there are identified alternative routes which appear from available information to be environmentally superior.

13-1

As owners of Executive Park and a large, undeveloped site in Brisbane adjacent to the proposed end of the new line, Universal Paragon's main concern is with the decision to analyze only a route which crosses to the west side of U. S. Highway 101 at the existing Bayshore Boulevard overpass, then dead-ends into a parking lot squeezed between the Caltrain station and existing buildings used by Schlage Lock (the "Dead End Route").

13-2

The Dead End Route will not serve:

1. Executive Park, whose environmental review covers 1.15 million square feet of office space, 600 residential units, a 350-room hotel and 45,000 square feet of retail space;

David Kroot
Lee C. Rosenthal
John T. Nagle
Colly V. Marshall
John Hutchins
Richard A. Judd
Steven M. Tiedemann
Thomas H. Webber
John T. Haygood
Bernie Jackson McLean
Michelle D. Brewer
Andrew Z. Shagrin
David M. Robinson
of Counsel
Steven H. Goldfarb
Barry R. Lipman
45 S. Figueroa Street
Suite 2631
Los Angeles
California 90071
627-6336

2. The proposed Candlestick Point mall, approved by Proposition F for 1.4 million square feet of occupied floor area;
3. The reconstructed Candlestick stadium;
4. Redevelopment at or near the Hunter's Point Shipyard; or
5. Development on Universal Paragon's land adjacent to the San Francisco city limit within the city of Brisbane, for which one million to 4.2 million square feet is allocated under Brisbane's General Plan.

13-2

Because the draft does not analyze an alternative light rail route which would serve these developments, we do not know how many potential light rail riders the Dead End Route would leave unserved, nor do we know what means of transportation those potential riders would use in the absence of light rail. However, we do know that thousands of passengers who would use a light rail system are likely to drive cars instead, if their only light rail choice is the Dead End Route.

The October 17, 1985 Subsequent Environmental Impact Report for Executive Park projected about 20,800 daily trips entering or leaving the site, with about 3,100 during the afternoon peak between 4 p.m. and 6 p.m. (p. 96). While a draft environmental review document has not been published for the Candlestick Point mall, the April 11, 1998 Draft Mission Bay Subsequent Environmental Impact Report analyzed a roughly equivalent aggregate amount of retail space, about 1.5 million square feet (p. III.2) and anticipates generation of almost 150,000 daily trips, of which approximately 8765 would be p.m. peak trips (p.V.E.58). The November 14, 1997 Draft EIS/EIR for the Disposal and Reuse of the Former Naval Shipyard Hunters Point projects 14,900 daily person trips by 2010 and 27,390 by 2025, of which 1490 and approximately 2629 would be p.m. peak trips in the respective years (p. 4-5). For years beyond 2003, Brisbane's General Plan EIR analyzes totals of approximately 300,000 additional average daily trips from development on the Baylands property adjacent to San Francisco (pp. 55-56). It projects 10,461 vehicle trips during a single p.m. peak hour (Traffic and Circulation Technical Memorandum, pp. 9, 78), of which approximately 41% would be to or from San Francisco (Technical Memorandum, pp. 32, 51). Leaving the stadium out of the equation, and recognizing that adding numbers from these different analyses is adding apples to oranges, the rough figures nonetheless suggest a potential to offer light rail service for 300,000 trips per day. If 15 percent of these trips could be switched to light rail, 45,000 trips could be kept off the street network and highways, a major environmental benefit.

13-3

This potential benefit is particularly significant because the Dead End Route, in contrast, does relatively little to reduce traffic impacts. By 2015, the draft EIR projects that the Dead End Route would serve 2,450 more transit passengers than if no light rail were built (Table 3-6, p. 3-30). Compared to this, 45,000 new passengers generated on the southern segment

13-4

would be a major improvement indeed. In fact, the whole line with the Dead End Route is projected in 2015 to serve about 71,00 riders per day over its entire length from the Transbay Terminal to its southern terminus (draft, Table 3-6, p. 3-30).

13-4

An alternative route remaining east of Highway 101 would not directly serve the Visitacion Valley and Little Hollywood neighborhoods, but would provide direct service to additional areas of Bayview-Hunters Point. Again, the draft as published does not evaluate or compare impacts from these two routes. However, a route east of Highway 101 would gain far more new riders than those lost in Visitacion Valley; it might well gain more new riders among Bayview-Hunters Point residents alone. The draft does note that constructing light rail on the Dead End Route would increase ridership of the 9X, 9AX and 9BX bus lines, which connect Visitacion Valley and the Financial District, compared to a scenario with no rail service. (In fact, the projected increase would be larger than the net increase in transit riders resulting from light rail on the Dead End Route). One explanation for this is that light rail on Third Street does not offer an attractive alternative to Visitacion Valley residents headed downtown. The 9 bus lines reach the Financial District (Kearny and Sutter) relatively quickly—in 25 minutes under current conditions (draft, p. 3-7). The Dead End Route would take 31 minutes in 2015 to reach Third and Market. Thus, the number of Visitacion Valley riders served by light rail may well be quite small. Meanwhile, the number of additional Bayview-Hunters Point neighborhood riders from a route farther east seems likely to be larger, given the considerably longer travel times on the 15 bus which now serves Third Street.

13-5

If service to Visitacion Valley does turn out to be critical, another alternative would be for light rail service to cross back under Highway 101 farther south to reach Brisbane, Candlestick and Executive Park. Available information suggests that this would also be feasible.

13-6

Because the draft EIR does not discuss any route east of Highway 101, or any other alternative, we do not know whether those routes would be more or less feasible than the Dead End Route. However, there are several reasons to believe that at least a route farther east would cost less, and also be more feasible for other reasons. First, a route which did not cross over Highway 101 would not have to ascend on 705 feet of retained fill west of the highway and descend for 900 feet on the other side (draft, p. 2-21). Second, not only would cutting and filling likely be more expensive than a more level route, it would also require eliminating stops along inaccessible track sections. Third, the cut and fill would interfere with a number of turns on and off of Bayshore Boulevard (draft, p. 2-21), requiring street and signal modifications. Fourth, the existing overpass would have to be rebuilt for the Dead End Route, and the northbound Highway 101 off-ramp reconstructed (draft, pp. 2-21-2-22). Fifth, the Dead End Route would run down the middle of Bayshore Boulevard, requiring additional street and signal modifications and reducing traffic capacity on a street which probably carries heavier traffic than streets east of Highway 101 such as Gilman or Carroll. Sixth, the Dead End Route would approach the Caltrain station on an alignment which would allow limited space and require acquisition of parking area and potentially a building, both now leased from Universal Paragon for active use by Schlage Lock.

13-7

Tacitly recognizing the advantages of serving areas which the Dead End Route does not serve, the draft repeatedly mentions (pp. S-4, S-7, 2-6, 2-18) extending service to the east, either by private shuttles, or "branch" lines. The "branches" are, however, relegated to possible future analysis at an unspecified time. The draft notes, possibly as a reason for this summary dismissal, that funding has not been identified for any other route. However, since the Dead End Route is to be financed entirely with locally controlled funds, and the draft does not compare the costs of the disregarded alternatives, this cannot be a reason not to analyze other routes now.

13-8

CEQA prohibits segmented analysis when it is used to break a project into pieces and avoid describing its full consequences. "Piecemealing" has similar defects here, where it will deny the information necessary to make an informed overall choice.

13-9

The choice of the Dead End Route appears to have been motivated in large part by deference to neighborhood concerns. Those concerns are important, but they do not justify omitting environmental analysis of alternatives. Alternatives analysis is critical under the California Environmental Quality Act precisely because it allows decision-makers to make informed policy decisions, based on neighborhood or other concerns, knowing the environmental consequences of their choices. The draft would not allow decision-makers to make an environmentally informed decision.

13-10

Indeed, the only two alternatives it considers are the bare legal minimum—a CEQA-required no project alternative and a NEPA- and Federal Transportation Administration-required no-build/service improvements only alternative. The no project alternative is perfunctory. The service-improvement-only alternative is slightly more useful, but given the strong existing policy commitment to provide physically improved transit service in this corridor the service-only analysis does not reach the critical issue of choosing the most effective physical improvements. Indeed, because the Dead End Route provides relatively limited benefits, the service-only alternative does a disservice, providing a probably misleading understatement of the potential environmental and other benefits from light rail.

13-11

The draft also fails Bayview-Hunters Point, because it does not analyze the ability of light rail serving a Candlestick mall, Executive Park and the redeveloped shipyard to reduce traffic through the neighborhood. Residents who have resisted a light rail line as placing one more burden on Bayview-Hunters Point should have the opportunity to compare the effects of light rail east of Highway 101 to the additional car and bus traffic in their neighborhood which will result if the only light rail line is west of Highway 101.

13-12

Failure to include meaningful alternatives analysis is particularly dramatic because alternative routes have been identified. The Muni's Bayshore Transit Study, for instance, included an alternative along Gilman Avenue east of Highway 101 (Refined Alternative 10). (It would also be possible to minimize effects on residents by following a street farther north, such as Carroll.) This 1993 study also outlined another alternative, crossing back under Highway 101

13-13

Hilary E. Gitelman
Environmental Review Officer
May 18, 1998
Page 5

farther south, in Brisbane, at an existing tunnel, reaching a relocated Caltrain station, Universal Paragon's development site in northernmost Brisbane, then continuing on to Executive Park, and the Candlestick Point area. While the Muni study does not contain enough information to permit an appropriate environmental comparison, it does delineate these apparently feasible alternatives. In discussions with Universal Paragon staff, representatives from the city of Brisbane have appeared eager to cooperate in implementing an alternative along either of these lines.

13-13

We ask that you expand the draft EIS/EIR to consider alternatives now, rather than proceed without environmental analysis to adopt an apparently environmentally inferior choice, putting off into a hypothetical future alternatives which offer immediate, substantial practical benefit.

Sincerely,



RICHARD A. JUDD

RAJ:crs

cc: Bonnie Bamberg, Universal Paragon Corp.

Our File: 655/10

The Law Offices of
GOLDFARB & LIPMAN

One Montgomery Street
Twenty-Third Floor
San Francisco
California 94104

415 788-6336
415 788-0999 FAX

July 9, 1998

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JUL 9 - 1998

CITY & COUNTY OF S.F.
DEPT. OF CITY PLANNING

Hilary Gitelman, Environmental Review Officer
San Francisco Planning Department
1660 Mission Street
San Francisco, CA 94103-2414

M David Kroot
Lee C. Rosenthal
John T. Nagle

Polly V. Marshall

Lynn Hutchins

Richard A. Judd

Karen M. Tiedemann

Thomas H. Webber

John T. Haygood

Dianne Jackson McLean

Michelle D. Brewer

Andrew Z. Shagrin

David M. Robinson

Yoomie L. Ahn

Of Counsel

Steven H. Goldfarb

Barry R. Lipman

Re: Third Street Light Rail Draft EIS/EIR, 96.218E

Dear Ms. Gitelman:

On May 18, 1998, I submitted on behalf of Universal Paragon Corporation comments on the April 3, 1998 draft EIS/EIR for the Third Street Light Rail Project. Those comments referred to alternative light rail routes east of Highway 101, either along Gilman or Carroll Avenue or further south, in Brisbane. Based on descriptions given to me by others of Muni's 1993 Bayshore Transit Study, the May 18 letter also said that the 1993 study had identified such alternatives.

Since the deadline for comments I have been able to obtain and review both a September 1993 package of materials and the December 1993 final report from the study. Neither contains significant discussion of the alternatives mentioned in my May 18 letter (though some are mentioned as possible future branch lines). I apologize to you and the Planning and Muni staffs for any time and effort you may have spent or other inconvenience caused by my mistake.

Of course, my client and I continue to believe that alternative routes which would provide service east of Highway 101 should still be analyzed in the Third Street Light Rail Project EIR/EIS.

Sincerely,



RICHARD A. JUDD

cc: Bonnie Bamburg, Universal Paragon Corporation

445 S. Figueroa Street
Suite 2631
Los Angeles
California 90071
213 627-6336

Comment Letter 13

Richard A. Judd
Goldfarb & Lipman
One Montgomery Street, 23rd Floor
San Francisco, CA 94103-2414

Response 13-1

Refer to Responses 11-6 and 11-7.

Response 13-2

Refer to Response 11-7. Planned development in the Corridor is described in the land use section of the DEIS/DEIR (pages 4-15). This development would include most of the projects identified in the letter. However, Universal Paragon's plans for development in Brisbane were not included because, according to Brisbane City Planner Tim Tune, no application of any kind was before the City of Brisbane for consideration at that time, making actual development a matter of speculation. The Brisbane General Plan, while providing for future development on this site, also calls for lengthy planning and infrastructure development prior to build-out of the sub-area. (Telephone Conversation, August 1997, M. Mednick)

Response 13-3

Comments noted. Refer to Response 13-8.

Response 13-4

Comments noted. Refer to Response 13-8.

Response 13-5

Comments noted. Refer to Responses 11-5, 11-17, and 13-8.

Response 13-6

Comment noted. A future study of alignment options to serve Candlestick Point with light rail would examine this route, if and when such a study is initiated by the City.

Response 13-7

As indicated in Mr. Judd's follow-on comment letter of July 9, 1998, the *Bayshore Transit Study* (December 1993) does not contain significant discussion of alternative alignments east of Highway 101. During the initial planning phase, Tuntex proposed an alternate alignment to Candlestick Point and Executive Park. It was not included for further study because it did not respond to the service needs of the Bayview Hunters Point and Visitacion Valley communities. During the scoping process for the present DEIS/DEIR, such a route was not introduced by anyone, nor was there any testimony at any Public Transportation Commission or Planning Commission hearings between August 1996 and June 1998 indicating a preference for this route. In addition, the San

Francisco Transportation Authority approved File #PPC110491 on December 16, 1991, requiring that transit improvements funded with sales tax funds stay within the County limits.

Response 13-8

As noted in Response 11-7 above, the alternatives and design options to be analyzed in the DEIS/DEIR were defined by the San Francisco Public Transportation Commission in July of 1997, following a comprehensive Systems Planning Study that considered many Corridor alternatives. It is on the basis of this decision and extensive community input (including over 120 public meetings) that the Third Street Light Rail Project was defined as the primary trunk route to serve the Bayview Hunters Point community and Visitation Valley. Servicing these communities was implicitly seen as a greater priority than servicing Universal Paragon's proposed development, particularly since the proposed trunk route could later be enhanced through shuttle services and extensions to the east, west, and south.

As noted in the environmental document, the proposed route would meet the purpose and need defined for the Project. It would not preclude future consideration of possible extensions from the trunk line to serve other possible future developments like Candlestick Mall or redevelopment of Hunters Point Shipyard. The San Francisco Transportation Authority Countywide Transportation Plan is currently being prepared to address these future, long-term planning issues.

The shuttle bus service from the Caltrain Bayshore Station is described in the environmental document to provide service from the Third Street light rail line to other possible developments in the area, if and when a need for service becomes feasible. As an important locally-funded project, the Third Street Light Rail Project can proceed into final design and construction while these other possible projects are defined to a point that would allow quantitative analysis.

Response 13-9

The DEIS/DEIR analyzes a two-phase project in its entirety, even though the second phase may not be completed for some time. Potential future extensions beyond the two phases have not been programmed and funded. Potential future extensions would require substantial, additional planning and public input. Piecemealing does not apply to possible future projects that are not yet defined to a point that would allow detailed analysis in an environmental document.

Response 13-10

See Responses 11-7 and 13-8.

Response 13-11, 13-12, 13-13

See Response 11-7. In addition, the *Detailed Definitions of Alternatives, Working Paper #3* and the *Travel Demand Forecasting Results, Working Paper #4* provide more detailed discussion and analysis of the three alternatives described in the DEIS/DEIR. The complete information provided in the public record, and available for public review, is far from perfunctory and describes in detail the comparative differences between alternatives.

As stated in Mr. Judd's follow-on comment letter of July 9, 1998, the initial planning process (*Bayshore Transit Study*) did not consider alternative alignments to Candlestick Point and beyond

(though some are mentioned as possible future branch lines or extensions) because it did not serve the needs of the Bayview Hunters Point and Visitacion Valley communities.

The alternatives evaluated in the DEIS/DEIR are responsive to the Purpose and Need for the Project and, in particular, the Need for Transportation Improvements in the Corridor (page 1-3 of the DEIS/DEIR). Among the needs defined by community representatives are the integration of transportation improvements with community revitalization along Third Street (see page 1-7 of the DEIS/DEIR) and, as indicated in the South Bayshore Area Plan of the City's General Plan, the integration of transit and pedestrian-oriented land use and new development along Third Street in concert with a new light rail investment.



CATELLUS

14

May 19, 1998

Hillary E. Gitelman, Environmental Review Officer
City and County of San Francisco
Planning Department
1660 Mission Street
San Francisco, CA 94103-2414

Re: Third Street Light Rail Project Draft EIR

Dear Ms Gitelman:

Upon review of the Third Street Light Rail Draft EIS/EIR, it appears generally consistent with the analysis presented within the Draft Mission Bay SEIR. The Third Street Light Rail Draft EIR depicts Mission Bay Alignment - Option 1 alignment provisions addressed in the Mission Bay Redevelopment Plans. It appear that the impacts of implementation of the Light Rail Segment within the Mission Bay Project Area are addressed in consideration of short-term construction related-impacts and long-term impacts resulting from project build-out.

14-1

However, the proposed Mission Bay Project does not contemplate the Mission Bay Alignment-Option 2, as analyzed in the Third Street Light Rail EIR. Therefore, we are opposed to Option 2 Alignment for the following reasons:

- a) Table E-11 (page E-8) indicates that three out of four intersections in Mission Bay North would be operating at unacceptable levels of service (LOS E or F) during the p.m. peak hour in the year 2015.
- b) Due to the reduced number of northbound travel lanes on the Third Street Bridge, as considered under the alignment traffic conditions on Third Street near the Channel would degrade substantially, with northbound vehicular queues extending as far south as Owens Street.

14-2

The Draft EIR identifies these transportation-related impacts as significant without implementation of adequate mitigation measures.

Thank you again for the opportunity to comment on this issue. If you should have any questions on these comments, please do not hesitate to contact me at (415) 974-4500.

Sincerely,

Don Parker
Vice President
Bay Area Development

Comment Letter 14

**Don Parker, President
Bay Area Development
Catellus Development Corporation
201 Mission Street, 2nd Floor
San Francisco, CA 94105**

Response 14-1

Comment noted that the analysis is generally consistent with the analysis presented in the Mission Bay Supplemental EIR.

Response 14-2

Comments noted. The Mission Bay EIR evaluated the two-way light rail alignment along Owens and Fourth Streets (Option 1) and did not consider one-way northbound operation along Third Street with one-way southbound operation along Fourth Street within Mission Bay (Option 2). As noted, Option 2 would result in worse traffic operations in comparison to Option 1. Option 1 was selected as part of the Locally Preferred Alternative by the PTC on June 23, 1998.

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Stephen Taber
Sherry Thomas
Cheryl Towns
Mauricio Vela
Steven Vettel
Tay Via
Robert Wilhelm
Evelyn Wilson
Peter Winkelstein

May 19, 1998

Mr. Brian J. Kalahar
San Francisco Planning Department
1660 Mission Street
San Francisco CA 94103-6359
via fax 558-6409

RE: State Clearinghouse #96102097
SF Case File No. 96.281E
Draft EIS/EIR Third Street Light Rail Project

Dear Mr. Kalahar:

SPUR is an independent urban planning organization, comprised of citizens, business leaders, and government representatives. SPUR's mission is to promote good government and sound planning from the perspective of the city as a whole.

We have had a long interest in the Third Street Light Rail Project, and we have had numerous presentations by the City and neighborhood groups at SPUR. Members of our Transportation Committee have reviewed the Draft Environmental Impact Statement/Report dated April 3, 1998.

This matter has not come before the SPUR Board and therefore does not represent official SPUR policy but rather represents comments made at our Transportation Committee and builds upon long-standing general SPUR policies relative to good transportation and land use planning.

In general, the Third Street Light Rail project appears to be one with significant benefits to the City. We strongly recommend the Light Rail Build alternative.

Given that decision, we would like to focus our comments on the adequacy of the EIS/EIR relative to the design of the line on two segments: A) the Bayview commercial core and B) the crossing of Mission Creek.

312 Sutter Street, Suite 500
San Francisco, CA 94108-4305
(TEL) 415.781.8726
(FAX) 415.781.7291
spur@well.org
http://www.spur.org



#15

15-1

15-2

A. Bayview Commercial Core

When examining how Third Street should be redesigned for light rail in the Bayview Commercial Core, it is clear that there are competing goals:

1. Encouraging a modal shift towards greater use of public transit by providing a faster, more convenient transit option.
2. Stimulating economic regeneration along the Third Street commercial corridor by providing easier access (including parking) to the commercial establishments and enhancing the pedestrian environment.

15-3

Both goals are valid and elements of both should be possible to achieve at the same time. The best design solutions will be those that come closest to balancing these competing goals.

From the perspective of encouraging greater use of public transit, the single most important priority is to secure a dedicated right of way for the rail vehicles. Experience with other Muni Metro lines, as well as with transit in other cities around the country, indicates that there is simply no point in making the huge investment in a light rail line if the trains will be forced to go the same speed as automobile traffic. There is no reason for the public with discretion to use transit if they can travel faster by car. And if in fact it is the goal of the merchants is to attract more customers, for most merchants, the potential for more customers to arrive by transit exceeds the potential for more to arrive by automobile.

15-4

From the perspective of creating an attractive retail environment, important issues include providing adequate and convenient customer parking and creating a good pedestrian environment. Every merchant of course wants curb parking directly in front of his or her store. Not only does this create the psychological impression of easy parking but it also provides at least a perceived safety buffer for pedestrians on the sidewalk.

15-5

Planning level studies to date have concluded that along Third Street there is *generally* not enough room to provide both curbside parking and a dedicated right of way. We ask that in the final EIR: 1) an evaluation be made of the additional travel time and operating costs for non-exclusive right of way operations through the Bayview commercial core for each of the options studied, 2) estimates be made of the impacts thereof reducing patronage, and 3) detailed designs be developed that minimize negative impacts of maintaining an exclusive right of way. Conditions do change from block to block and parcel to parcel and from precise land use to land use, as some parcels are intensely used, some are vacant, some are uses which benefit from 5-minute stop and go parking, some require hours-long parking, some can be served by angle parking around the corner, some cannot. In other cases, off-street parking may be provided on vacant parcels.

15-6

We are hopeful that a more fine-grained analysis by experienced landscape architects and urban designers will find that opportunities exist to meet multiple goals. It is likely that one overall solution as is suggested in the Options 1 through 4 will not be the most beneficial,

15-7

but rather a combination of features from the various options depending on the exact location, especially when compared with the overall costs to operations and patronage that operations in a non-exclusive will cause.

15-7

It should be noted that recently curb parking has been removed in "key stops" locations along other Muni Metro lines to provide for accessible platforms. Despite initial predictions, this has not resulted in disastrous impacts on merchants.

15-8

From a transportation perspective, bike lanes are important. However, if it is determined that they cannot be accommodated in the finite amount of right-of-way, we strongly encourage accommodations to be made in the design of the light rail vehicles to encourage transit patrons to bring their bicycles on board.

15-9

By way of conclusion, long standing SPUR policies would propose that the proper frame of evaluation of the street configuration in the Bayview commercial core *is as a commercial district, not a highway*. The overall goal is to make the street a nice place to be, not an easy place to drive through. This suggests prioritizing the potential uses of the right of way in this order:

15-10

1. Dedicated rail line rights of way / one lane of traffic in each direction
2. Wider sidewalks
3. On-street curbside parking
4. Bike lanes
5. Additional traffic lanes.

This suggests that in some locations the automobile lanes need to be reduced to one lane in each direction to accommodate other needs. By expanding the space for pedestrians, providing dedicated right of way for transit, and shrinking the space reserved for automobiles, San Francisco can live up to its goals of being a Transit First city as specified in the City Charter and creating lively commercial districts both at the same time. We request that the EIS/EIR specifically evaluate the costs and benefits of such a prioritization.

15-11

B. Mission Creek Crossing

How should the light rail line cross Mission Creek? Again, from the perspective of encouraging greater use of public transit, the single most important priority is to secure a dedicated right of way for the rail vehicles.

15-12

Option 1 has transit vehicles operating in mixed flow traffic in both directions on the Fourth Street bridge. Option 2 has northbound vehicles operating in an exclusive lane on the Third Street bridge and southbound vehicles operating in mixed flow on the Fourth Street bridge.

We recommend that other alternatives be studied, which have transit operating in exclusive lanes, such as southbound on the Fourth Street Bridge, eliminating one of the two southbound automobile lanes, and northbound on Third Street as in Option 3. Other alternatives could include provision of wider bridge design(s). While such construction represents an additional high initial cost, the entire capital cost of the Initial Operating Segment and the Central Subway is in the neighborhood of \$1 billion. Experience with Muni Metro in such areas as the vicinity of the Duboce/Church Street portal and the Embarcadero Turnaround show that savings in initial construction are usually counterbalanced at best by subsequent operational costs, including reduced patronage and unaccounted for but real declines in patronage due to operational delays, and at worst by subsequent reconstruction.

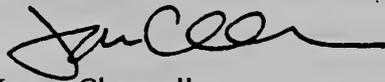
15-13

In addition, there needs to be specific consideration of the impacts of other projects on the light rail system, particularly of Pacific Bell Park, so that final conclusions can be made regarding the apparent benefits of operation in both directions on the Fourth Street bridge, and of beneficial impacts on patronage that such location will have by providing direct connection with the Caltrain system.

15-14

Thank you for the opportunity to comment on this draft EIS/EIR.

Sincerely,



James Chappell
President

Comment Letter 15

James Chappell, President
San Francisco Planning and Urban Research Association
312 Sutter Street, Suite 500
San Francisco, CA 94108-4305

Response 15-1

Comment noted. SPUR comments represent the review of the Transportation Committee and not official SPUR policy.

Response 15-2

Comment noted that SPUR strongly recommends the Light Rail Alternative.

Response 15-3

Comments noted concerning the competing goals and the need for the best design solutions.

Responses 15-4 and 15-5

Comment noted that the single most important priority for the use of public transit is to secure a dedicated right-of-way for light rail vehicles. Of the 5.4 miles that compare the IOS, all but 10 or 11 blocks will be in an exclusive right-of-way. At a meeting held on June 23, 1998, the PTC selected the mixed-flow design option along the Third Street commercial core, based on input from staff and the public. This design option, incorporated into the Locally Preferred Alternative, allows curb parking and sidewalk amenities.

Response 15-6

The information regarding the effects of implementing the mixed-flow option in the nine-block Third Street commercial core is discussed in the DEIS/DEIR as follows:

- Transit fleet requirements, the last paragraph on page 2-39
- Annual operating statistics for the IOS, Table 2-6 on page 2-40
- Operating statistics, the last paragraph on page 2-57
- Annual operating statistics for the New Central Subway, Table 2-8 on page 2-58
- Operation and cumulative impacts, the third paragraph on page 3-32

Because of the expression of support from Bayview Hunters Point residents for the mixed-flow option, on June 23, 1998, the PTC selected the mixed-flow option as part of the Locally Preferred Alternative.

Response 15-7

More detailed project design work will continue to refine the parking design and conditions even after the environmental review process is completed. This will be done through continued

coordination and input from the Bayview merchants and community representatives. MUNI's design consultants have conducted two Corridor workshops in June and July 1998 to develop a vision and basic guidelines for streetscape and light rail station design in the Third Street Corridor. During the fall, MUNI will present alternative design concepts for public review and comment.

Response 15-8

Comment noted. No formal study of this issue has been conducted, but discussions with MUNI staff involved with the Key Stops project indicate that this is not completely correct. Businesses which depend largely on quick, "convenience" visits from patrons (i.e. neighborhood groceries, dry cleaners, cafes) appear have been adversely affected by loss of curb parking in front of their stores. Other types of businesses have not been affected. In addition, the commercial core area along Third Street is presently characterized by struggling businesses and is an area where the City hopes to bring about revitalization, with the assistance of the light rail line.

Response 15-9

Comment noted. MUNI will investigate the feasibility of bringing bikes aboard transit vehicles.

Response 15-10

Comments noted. The DEIS/DEIR does consider dedicated rail right-of-way, wider sidewalks, on-street curbside parking, bike lanes, and traffic. Community representatives were actively involved in the screening of alternatives and in the selection of the Locally Preferred Alternative.

Response 15-11

See Response 15-5. It is beyond the scope of the DEIS/DEIR to provide the requested cost/benefit analysis. Comparative costs and benefits of the alternatives analyzed in the DEIS/DEIR are provided in Chapter 7.0 Financial Feasibility and in Chapter 2.0 under Operating Statistics and Capital Costs and O&M Costs. FTA Cost Effectiveness indices are presented in Chapter 8.0 on pages 8-7 and 8-8. Additional discussion of the cost-effective indices for the Project's alternatives is presented in the *Evaluation of Alternatives Report* (February 1998), available for review at the San Francisco Planning Department.

Responses 15-12 and 15-13

One June 23, 1998, the Public Transportation Commission selected light rail operating in two directions on the Fourth Street bridge as part of the Locally Preferred Alternative. The Fourth Street bridge is on the national Register of Historic Places and a wider bridge design could impact its eligibility and historic character.

Response 15-14

The traffic impacts related to light rail operation on the Third and Fourth Street bridges are described in the last two paragraphs on page 3-45. The advantages of operating light rail only on the Fourth Street bridge, including its proximity to the Caltrain station and its one block distance from the new Giants ballpark, were apparent to the PTC when they selected this option as part of the Locally Preferred Alternative.

Chinatown Community
Development Center

華埠社區協進中心



社區

May 15, 1998

Hillary E. Gitelman
Environmental Review Officer
San Francisco Planning Department
1660 Mission Street
San Francisco, CA 94103

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CITY & COUNTY OF S.F.
DEPT. OF CITY PLANNING



RE: Draft EIS / EIR – Third Street Light Rail Project

Dear Ms. Gitelman,

The following comments are submitted on behalf of the Chinatown Transportation Research and Improvement Project (Chinatown TRIP) and the Chinatown Community Development Center (Chinatown CDC). Chinatown TRIP is a volunteer group of citizens concerned with improving and maintaining good transit, traffic access and parking conditions in Chinatown. Chinatown CDC is a non-profit community development organization formed in 1978 to help low-income residents of the Chinatown/North Beach area in meeting affordable housing, open space and transportation needs.

As interested members and as members of the Community Advisory Group, both Chinatown TRIP and Chinatown CDC have been active in the planning of the Third Street Light Rail Project. We are highly supportive of the project and believe that the Central Subway component is critical to its long-term success. Efficient and convenient cross-town transit connections, such as this project, which will link the now ill-served southeastern part of San Francisco with the northeast quadrant, is essential in meeting transit-first goals of the entire city. The Central Subway is even more pertinent since it establishes future connections with the Geary Corridor line.

16-1

Our comments on the Draft EIS/EIR focus on the bus operating plans. The primary concern is to maintain existing bus service between Visitacion Valley, whose residents are now primarily people of Asian decent, and Chinatown, where many of the residents of the Visitacion Valley and vicinity come for social services, shopping and jobs. Before, during and after the light rail operation, we want to ensure that the existing service on the bus lines 15, 9, 9X, 9AX and 9BX is not diminished but enhanced. These bus lines, particularly the 9 express lines, currently provide for a relatively efficient and safe connection between the neighborhood streets within the Visitacion Valley, the Portola and the Silver Terrace neighborhoods and Chinatown. The light rail, although it will serve the Visitacion Valley community with two stops, will not directly reach the neighborhood streets.

16-2

With the maintenance and the enhancement of the existing bus service in mind, Chinatown TRIP and Chinatown CDC recommend the following for both the **Initial Operating Segment** and the **Central Subway**:

16-3

- Existing bus service to and from the Visitacion Valley, the Portola, and the Silver Terrace neighborhoods to Chinatown should be enhanced, not diminished since these neighborhoods will not be fully serviced by the light rail.

1525 Grant Avenue • San Francisco, California 94133-3323

415.984.1450 • FAX 415.362.7992 • CRS 800.735.2929

formerly Chinatown Resource Center and Chinese Community Housing Corporation

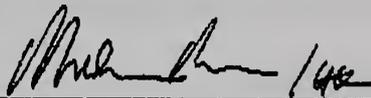
- The light rail may replace the 15 line but not the 9 lines. We recommend an expanded 9 service on all the express lines to meet future capacity; it is currently above capacity serving the neighborhoods indicated above. | 16-4
- We recommend the following services on the 9 lines:
 1. a full service on the 9x for weekdays and weekends, from its current south terminus to North Point. |
 2. 9AX and 9BX service for peak hours only on weekdays, from their current south termini to North Point. | 16-5
 3. 9 San Bruno service for evenings only, from its current south terminus to North Point. |
- We suggest a separate express bus line in the Visitacion Valley and/or the Bayview Hunters' Point to run east-west from Third Street to City College, with a connection to at least one of the two light rail stops on the Bayshore Blvd. | 16-6
- We suggest a better community service in the Visitacion Valley area, i.e. an enhancement of the existing 56 line, to better connect the neighborhood streets with the light rail. | 16-7
- We suggest a more pedestrian friendly crossing and signal timing at the Bayshore Blvd. (i.e. at the two Visitacion Valley light rail stops.) | 16-8

Thank you for your consideration of the above comments. Please feel free to contact our organizations through Jasmine Kaw, the Neighborhood Improvement Coordinator, at 415 984 1461, if you should have any questions.

Sincerely,



Gordon Chin,
Executive Director
Chinatown Community Development
Center



Michael Mah,
Chair
Chinatown Transportation Research and
Improvement Project

cc. Public Transportation Commission
Planning Commission

Comment Letter 16

Gordon Chin, Executive Director
Chinatown Community Development Center
1525 Grant Avenue
San Francisco, CA 94133-3323

Response 16-1

Comment noted. The Chinatown Community Development Center believes that the New Central Subway is critical to the success of the Project.

Response 16-2

Comment noted. As Chapter 2.0 of the DEIS/DEIR states, service on the 9, 9X, 9AX and 9BX will be continued or improved after light rail operation begins. However, the 15 bus line will be eliminated at the same time that light rail service is initiated.

Response 16-3

The proposed bus operating plans for the IOS are described on page 2-38 of the DEIS/DEIR, and the plans for the New Central Subway are presented on page 2-56. MUNI believes the range of bus services discussed in the DEIS/DEIR are consistent with this comment. For example, in Bus Service Plan A, the 9X-San Bruno Expresses would continue their current weekday-only schedule and be extended to Kearny/North Point. The 9-San Bruno would be rerouted to Kearny/North Point during evenings and weekends. In Bus Service Plan B, the 9X would operate approximately 20 hours per day seven days per week. It should be noted, however, that future bus frequencies are under the purview of the PTC which may choose to adjust frequencies based on demand (i.e., actual usage) and fiscal constraints, whether or not the current project is approved.

Responses 16-4, 16-5, 16-6

These comments appear to generally conform to the range of services represented by Bus Service Plans A and B, which maintain direct service between Visitacion Valley and Chinatown (see Response 16-3). The Public Transportation Commission will hold separate hearings between 2002 and 2003 to finalize details of the bus operating plans. Public comments will be considered as part of that process.

Response 16-7

MUNI staff are currently working with members of the Visitacion Valley community to improve the service the 56-Line affords, primarily with respect to programs at Visitacion Valley Middle School. Additionally, the 56-Line will also be part of the process described above.

Response 16-8

Comment noted. Pedestrian crossing and signal timing will be designed during the engineering and detailed design phases of the light rail project. As part of the intersection modification, pedestrian crosswalks would be provided across Bayshore Boulevard. The crosswalks would be signalized to

facilitate safe pedestrian crossings. In addition, some pavement would be removed as part of the improvement, which would decrease pedestrian crossing distances. The traffic signal timing would assure standard pedestrian crossing times.



May 21, 1998

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DEPT OF CITY PLANNING

17

Ms. Hillary E. Gitelman
Environmental Review Officer
Planning Department
City and County of San Francisco
1660 Mission Street
San Francisco, CA 94103

RE: Third Street Light Rail Project, SF EIR Case File No. 96.281B

Dear Ms. Gitelman,

Following please find the official comments of the San Francisco Bicycle Coalition (SFBC) on the draft Environmental Impact Statement/Report (EIS/EIR) for the Third Street Light Rail Project (Project). The SFBC and its more than 1,800 paid members are the voice for the eleven thousand San Franciscans who rely on the bicycle for everyday transportation, as well as the hundreds of thousands who desire to, but cannot due to the unacceptably dangerous cycling conditions on San Francisco's streets.

The SFBC looks forward to working with MUNI and the Planning Department to ensure that the downtown area will be made safely bicycle-accessible to the southeast quadrant of the city.

1. Background: Importance of Third Street in the San Francisco Bicycle Plan

The segment of Third Street from King Street to Bayshore Boulevard was approved in the San Francisco Bicycle Plan (Plan) as an essential bicycling access route to the under-served southeast quadrant of the city. The Plan recommended 1.8 meter (6.0 foot) wide bicycle lanes on Third Street between Terry A. Francois Boulevard and Bayshore Boulevard as improvements for Bicycle Route 5, to link with King Street and the Embarcadero to the north and with Bayshore Boulevard to the south. This segment is crucial because no other direct bicycle route exists to link downtown and northeast San Francisco with eastern Potrero Hill, Hunters Point, Candlestick Park, and Visitacion Valley. Indeed, even though the Plan noted that cargo trucking volume on this segment made it less than ideal as a bicycle route, it was still adopted as part of Bicycle Route 5.

17-1

The Plan also recognized that a proposed light rail project on Third Street would result in the current width of the street being unable to accommodate both light rail and bicycle lanes. Accordingly, Bicycle Route 7 was established as a safer, lower traffic volume alternate route for that portion of Bicycle Route 5 extending from Mariposa Street to Carroll Avenue.

2. Mitigation Measures needed and Unanswered Questions Remaining.

Page S-20, Table S-5 of the EIS/EIR recommends potential mitigation measures to improve the bicycle environment in the Third Street Corridor (Corridor) if the project is implemented. One measure includes improvements to Bicycle Route 7 to enhance the portion of the Corridor from Mariposa Street to Carroll Avenue for bicycle travel. The SFBC supports this measure as consistent with the Bicycle Plan.

17-2

A second recommended mitigation measure is the re-striping of Third Street between Cargo Way and César Chavez where on-street parking is currently prohibited in order to include bicycle lanes. The SFBC supports this measure as this segment of the Corridor includes an essential part of Bicycle Route 7.

However, this still leaves one crucial access problem regarding Bicycle Route 5 and the Corridor: Third Street south of Carroll Ave., the southern terminus of Route 7, where the Project would make Third Street inhospitable to bicycle lanes. As mitigation, Route 7 should be extended south to Gilman Ave. via Carroll Ave. and Jennings Street. From the intersection of Third St./ Paul Ave./ Gilman Ave., Bicycle Route 5 will

17-3

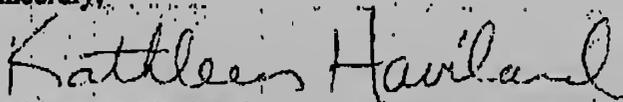
experience a significant reduction in bicycle safety unless mitigation measures are devised to improve Third Street south of that intersection. Mitigation measures should include improvements to Third Street itself, improvements to Paul Ave. and San Bruno Ave, improvement to Tunnel Ave. from Bayshore Blvd. to the multi-modal station. Another possible mitigation measure would be a direct connection from Tunnel Ave. to Bayshore Blvd. south of the Caltrain station along the right-of-way to be used by the proposed light rail. This new path would provide a safe alternative to the segment of Bayshore Blvd. between Sunnydale Ave. and San Bruno Ave. where bicycle safety will be significantly impacted by the proposed project.

17-3

Finally, the SFBC supports the recommended mitigation measure of allowing bicycles on-board Third Street light rail vehicles in addition to the improvements suggested above, especially in light of the resultant complexity of these alternate routes as impacted by the Project.

17-4

Sincerely,



Kathleen M. Haviland
Board Member, San Francisco Bicycle Coalition

Comment Letter 17

Kathleen Haviland, Board Member
San Francisco Bicycle Coalition
1395 Market Street, #215
San Francisco, CA. 94102

Response 17-1

Comment noted. The importance of Third Street as a bicycle route is also discussed on pages 3-24 and 3-25 of the DEIS/DEIR.

Response 17-2

Comments noted. Bicycle mitigation measures are discussed in more detail on pages 3-69 and 3-70 of the DEIS/DEIR, including retaining a wide outside travel lane and installing bicycle actuation detectors on all new traffic signals along Third Street. (See Response 17-3 below.)

Response 17-3

As discussed on page 3-69 of the DEIS/DEIR, striping of bicycle lanes on both sides of Third Street between Arthur Street/Cargo Way and Cesar Chavez Street is recommended.

The following paragraph has been added to page 3-69 of the DEIS/DEIR:

Since Route 7 terminates at Carroll Avenue (from Keith Street), consideration should be given to extending Route 7 along Carroll, Jennings, and Gilman Avenues to Third Street's intersection with Gilman/Paul Avenues, where other bicycle routes meet. South of Gilman Avenue, opportunities to improve bicycle circulation along Third Street and Bayshore Boulevard should be further explored. For example, if found feasible during final design of the light rail system, bicycle lanes could be striped on both sides of Bayshore Boulevard.

The second to last paragraph on page 3-69 of the DEIS/DEIR has been revised as follows:

Many bicycle riders would still prefer traveling along Third Street, ~~instead of along Route 7, due to the directness and relative levelness of the route.~~ and Bayshore Boulevard in lieu of alternative, less direct routes. The Bicycle Plan states a goal of...

The first paragraph in the second column in Table S-5 on page S-20 of the DEIS/DEIR have been revised as follows:

Bicycle lanes would not be possible along Third Street if light rail were implemented (except with the one-lane design option in the Third Street commercial core). Bicycle travel would be constrained along Third Street and Bayshore Boulevard. *Mitigation measures to improve the bicycle environment within the Corridor, such as restriping portions of Third Street (between Cargo Way and Cesar Chavez) for bike lanes where on-street parking is currently prohibited, improving and extending Bicycle Route 7,*

providing improved bicycle circulation south of San Bruno Avenue, and possibly permitting bicycles on Third Street light rail vehicles.

Response 17-4

Comment noted. Additional bicycle mitigation measures are discussed on pages 3-69 and 3-70 of the DEIR/DEIR. As indicated in Response 15-9, MUNI will study the feasibility of bringing bikes aboard transit vehicles.

2354 18th Avenue
San Francisco, CA 94116
May 14, 1998

#18

Brian Kalahar
San Francisco Planning Department
1660 Mission St.
San Francisco, CA 94103

Dear Mr. Kalahar,

Thank you for the opportunity to review the Third St Light Rail Draft EIS. I have been riding Muni to school or work on a regular basis for the past 30 years. The primary goal of public transit must be to serve its riders. My main comments are:

- The EIS does not establish the need for a 5.4 mile Third St Light Rail line. Transportation improvements needed can be met by additional bus service and by extending the Muni Metro Embarcadero line a distance of 0.6 miles to Mission Bay.
- The EIS states that Light Rail (IOS) is superior to the No Build/TSM alternative in the following areas, but insufficient analysis is provided to support these conclusions:
 - Reliability
 - Traffic Congestion
 - Mobility
 - Travel Times
 - Gasoline Consumption
 - Pollutant Emissions
- The EIS does not adequately consider financial goals. Reasonable cost and efficient use of limited financial resources were stated as project goals, but they were not addressed in the report.
- The EIS analyzes a Light Rail option that assumes a dedicated right-of-way and street improvements (e.g. landscaping), whereas the No Build/TSM alternative does not. Almost all the benefits of light rail accrue from its dedicated lanes and street improvements, so meaningful comparison of alternatives is not possible.

18-0

As a result, the EIS finding that Light Rail is a superior environmental alternative to No Build/TSM is not warranted and further analysis is required. The attachment (9 pages) contains detailed review comments, including an explanation of the above.

Sincerely,



Max Pong

cc. Hillary Gitelman,
Environmental Review Officer

EIS Review Comments

	Page	Comment
18-	1 S-1 2nd para	Transportation improvements needed for the Third St corridor can be met by extending the Muni Metro Embarcadero line to Mission Bay. A 0.6 mile light rail extension from 3rd/King Sts to 3rd/Mariposa Sts, plus additional bus service would be adequate. This also lessens environmental impacts. The EIS does not establish the need to extend light rail an additional 4.8 miles to Visitation Valley.
18-	2 S-1 last para	Claim of inadequacy has no basis other than someone's "perception". The No. 15 bus provides good access to the Muni Metro and BART stations at Balboa Park.
18-	3 S-12 Table S-4	Travel times from Arleta/Bayshore must consider the much faster 9X express bus. Example: Travel time for Arleta/Bayshore to Third/Market should be 25/34 minutes, not 36/45.
18-	4 S-12 Table S-4	The IOS travel times are based on dedicated lanes. Provide travel times for mixed flow case. Third St merchants favor the mixed flow configuration; it will likely be implemented.
18-	5 S-14 4th para	Add that no bicycle lanes could be added.
18-	6 S-21 last para	Light rail has no significant advantage in reliability, mobility and travel times. See comments 9 and 10.
18-	7 S-29	Residents along the J, L and N lines are complaining about whining noises from the Breda cars. This noise occurs everytime the vehicle decelerates from 20 to 10 mph. Residents also complain of vibration problems. Real life experience must be mentioned.
18-	8 S-30 1st bullet 4th bullet 5th bullet	<p>Light rail is not superior to TSM in terms of congestion, pollutants and gasoline consumption. Common sense indicates that light rail increases traffic congestion because two of six traffic lanes are removed.</p> <p>Tables 3-9 and 3-10 show light rail causes greater delays at intersections and slower travel speeds compared to the TSM alternate. This leads to greater gasoline consumption and pollutant emissions. Even after extensive mitigation measures are implemented, Table 3-12 shows light rail still causes greater congestion.</p> <p>Page 3-41 states "somewhat degraded traffic operations would result" with light rail. Tables 5-6 and 5-7 show no improvement in air quality and a negligible decrease in regional pollutant emissions with light rail.</p>

	Page	Comment
18	9 S-30 2nd bullet	<p>Light rail has no significant advantage in reliability. Single track light rail has inherent reliability problems. A traffic delay, breakdown, or accident that blocks the track at one location affects the entire system because one vehicle cannot pass another one.</p> <p>Caltrain Muni riders complain that the newly-opened Embarcadero Muni Metro line is unreliable and inflexible, and most continue to ride the existing bus system. The 1998 RescueMuni survey found that Muni Metro had the worst on-time performance (late 35% of the time), whereas diesel buses had the best.</p> <p>The J and N lines would be extended to service Third St IOS. These lines are unreliable due to lack of surface right-of-ways, congestion in the Market St subway, and overcrowding. Third St rail can only be as reliable as its weakest link; it will suffer similar reliability problems.</p>
18	10 S-30 3rd bullet	<p>Light rail has no significant advantage in mobility and travel times. The No. 15 bus already provides good access to the Muni Metro and BART stations at Balboa Park. Light rail (IOS) would decrease mobility because the No. 15 bus, which provides a direct connection to Chinatown, would be eliminated. The NCS would restore this connection, but there is no assurance that the NCS will be built. Even if it were constructed, the NCS would not begin operation until 15 years after IOS operation.</p> <p>Saving 4-6 minutes on an IOS trip from the Bayview to Downtown is not a significant time savings. Riding a light rail vehicle instead of a bus does not increase one's mobility. The EIS states "There would be no net increase in transit service compared with the No Build/TSM Alternative".</p>
18	11 S-30 S.5.1 1st senten	<p>Muni repeatedly states they do not have adequate funding to fully service the existing routes. Muni states their reliability problems are due to lack of drivers and equipment, as well as inadequate maintenance and supervision.</p>
18	12 S-31 3rd para	<p>It was difficult to obtain federal funding for the BART extension to SFO. State why the New Central Subway, a more local and less cost-effective project, will likely receive federal funds.</p>
18	13 S-32 1st para	<p>Light rail will decrease the mobility of those traveling to Chinatown. See comment 10. Almost all the benefits of light rail accrue from its dedicated right-of-way. A TSM alternative with limited stop bus service, express buses and/or transit only lanes must be analyzed.</p>
18	14 S-32 4th bullet	<p>Light rail has no significant advantage in reliability and travel times. See comments 9 and 10.</p>

	Page	Comment
14-	15 S-32 4th bullet	Light rail has worse accessibility because there are fewer stops. Handicap access is impaired because light rail vehicles do not have a wheelchair lift.
18-	16 S-32 6th bullet	<p>State basis for potential economic revitalization. The F-Line has not revitalized Market St. from 5th St. to 9th Sts. Mission St. residents complain that the 16th St BART station attracts criminal activity. Merchants complain the Powell St BART station and cable car turnaround attracts panhandlers and hustlers.</p> <p>Page 5-12 states "Modifications to Third St to accommodate light rail, including the reduction of vehicular travel lanes, are likely to discourage traffic, which could reduce the customer base for some local businesses".</p>
18-	17 S-32 7th bullet	The electrical power consumed by light rail vehicles is not "clean" (pollutant-free). The Hunters Point and Potrero Hill power plants located near Third St. supply almost 50% of the city's electricity on some days. Furthermore, Third St residents claim that pollutants from these power plants are causing high rates of asthma and other illnesses in the community.
18-	18 S-32 last sent	<p>The EIS analysis is inadequate to support the conclusion that Light Rail is the superior alternative (see above comments).</p> <p>Many of the benefits of Third St Light Rail arise only if both the IOS and NCS are constructed. The executive summary must mention that there is a 15 year gap between completion of the IOS and NCS. There is a good possibility that the NCS will not be built in the foreseeable future due to lack of funding. The Third St Light Rail EIS should include the IOS portion only.</p>
18-	19 S-34 2nd para	<p>Add discussion of cost effectiveness. The fact that TSM costs \$54 million and IOS costs \$402 million to provide transit service to a similar number of riders cannot be ignored. Cost effectiveness must consider the following:</p> <p><u>Incremental passenger cost</u> IOS: \$402 million / 72,070 additional riders = \$5578 TSM: \$54 million / 69,620 additional riders = \$776</p> <p><u>Total corridor passenger cost</u> IOS: \$402 million / 138,090 corridor riders = \$2911 TSM: \$54 million / 135,640 additional riders = \$398</p> <p><u>New rider cost</u> IOS: \$402 million / 2450 new riders = \$164,000 per new rider</p>

	Page	Comment
18	20 S-33 5th para	Has the "concern" that quality is not comparable been substantiated by transit studies? It is imprudent to spend \$402 million based on a mere concern. Consider alleviating this concern by TSM alternatives such as express buses and transit only lanes.
18	21 S-33 last para	The TSM alternate does in fact provide economic revitalization benefits. The TSM alternate meets or exceeds 3 of the 4 economic revitalization goals shown on p. 1-10.
18	22 S-33 last para	Consider a revised No Build/TSM alternative that adds infrastructure investments (street redesign, sidewalk improvements and landscaping).
18	23 S-34 1st para	The Muni Metro system is unreliable and overcrowded, and draws the most complaints from passengers. The numerous problems with the current system are neither understood nor have been solved. Were community residents provided this information?
18	24 1-3 3rd para	Delete paragraph. Traffic congestion is not unique to Third St Corridor. It is a citywide problem. Even the dedicated rail lines in the Market St subway suffer from congestion at rush hour.
18	25 1-3 4th para	Disagree that transit access is inadequate. See comment 2.
18	26 1-3 last para	Disagree that mobility is inadequate. The No. 15 bus provides a direct connection to the Balboa St BART station, and BART is constructing an extension to the airport. It is more time-consuming and circuitous to take light rail to Embarcadero, and then transfer to BART. Furthermore, the nearby 7B SamTrans bus runs to the airport.
18	27 1-7 2nd para	Numerous streetcar and cable car lines throughout the city have been removed and replaced with bus service. There is no proof this has depressed any neighborhood.
18	28 1-10 2nd row	Service reliability must include criteria in addition to miles of exclusive right-of-way. Add flexibility, which is the ability for a vehicle to change its route. Obviously light rail has poor flexibility because it cannot simply drive around a problem. Add criteria to include real-life experience with Muni light rail.
18	29 1-11 Financial Goal	Add criteria to address "Increase transit use and reduce travel time at a reasonable cost" (p. 1-1) and "Implement transit improvements that provide for the efficient use of limited financial resources" (p. 1-9). These goals have been ignored in evaluation of alternatives. Capital cost must be included in criteria.

	Page	Comment
18.	30 2-12 3rd bullet	Muni is building a new bus yard at Islais Creek for 165 buses. Can this yard accommodate the 40 new buses in the No Build/TSM alternate? If not, expand this yard to do so. This will lessen environmental impacts.
18	31 2-13 6th bullet 7th bullet	Trains in the Market St subway normally consist of three cars, 2 N's and 1 J. It would be logical to couple and uncouple the J and N's at Mission Bay. The 3rd and 4th St bridges should accommodate at least a 3-car train. Administrative procedures cannot be relied upon to limit bridge usage to two-car trains. Bridge should be retrofitted to safely accommodate 4-car trains.
18	32 2-18 last para	Construction of a parking garage violates the city's "Transit First" policy.
18.	33 2-20 Fig 2-7	Consider using a loop for turning back the trains. This is simpler and more reliable. Let's not repeat the Muni Metro Embarcadero Station problem.
18.	34 2-30 2nd para	The fact that streetcars operated in the past provides no assurance that the bridge is adequate. The new Breda cars weigh 80 tons each, much more than a streetcar. A two-car train would weigh 160 tons.
18	35 2-31	I-280 freeway ramps and Pacific Bell Park are both located on King St. Severe traffic congestion will result because light rail will be making left and right hand turns to and from King St. Also 30,000 persons exiting Pacific Bell Park will affect reliability of IOS. Fans jamming onto the train and pedestrians crossing the street will disrupt service. Has this been addressed?
18	36 2-37 2nd para	Single J cars will service the Third St rail line from Mission Bay to Visitation Valley. The main advantage of light rail is high capacity (i.e., 2 to 4 car trains are possible). Why are we building high-capacity light rail past Mission Bay if the passenger demand does not exist?
18	37 2-45 last para	There have been safety problems with vehicles and pedestrians on the Embarcadero Muni Metro extension line. Mirrors and train approaching warning lights have been added. Has this been considered?
18.	38 2-59 2nd para	The ATCS is \$30 million over budget and 5 years behind schedule. Consider installing a simpler system.
18.	39 2-71	EIS shows \$3 million per vehicle. The latest Breda vehicles that Muni has on order will cost \$3.7 million each.

	Page	Comment
18	40 2-71	EIS shows \$506 million to construct 1.75 mile long NCS. The Muni Metro Embarcadero turnback cost \$220 million for a 0.4 mile long tunnel and took 11 years to build. EIS cost estimate seems low.
18	41 2-73 1st para	Add "reasonable cost" and "efficient use of limited financial resources". These were listed as goals on p. 1-1 and 1-9. The EIS ignores or does not adequately address these goals.
18	42 3-17 3rd para	The Third St bridge opened 44 times/month and Fourth St bridge 33 times/month. Address its effect on transit reliability.
18	43 3-29 2nd para	Transit travel time is not a significant consideration. San Francisco residents have a high use of public transit due to lack of parking, extensive routes, and frequent service.
18	44 3-31 Table 3-7	Travel times from Arleta/Bayshore must consider the much faster 9X express buses. Example: Travel time for Arleta/Bayshore to Third/Market should be 25/34 minutes, not 36/45.
18	45 3-31 Table 3-7	The IOS travel times are based on dedicated lanes. Provide travel times for mixed flow case. Third St merchants favor the mixed flow configuration; it will likely be implemented.
18	46 5-5 2nd para	Justify claim that a light rail station (which is really a concrete bus stop in the middle of the street) will lead to economic revitalization. In fact, merchants on Church and Taraval Sts. complained about boarding islands in front of their stores and several islands were relocated.
18	47 5-10 4th para	Justify statement that neighborhood is underserved by transit improvements.
18	48 5-12 2nd para	First sentence implies that a Third St resident would turn down a job if he had to ride a bus to work, but would take the job if he could ride light rail. Is this true?
18	49 5-12 2nd para	EIS states "Bayview Hunters Point residents surveyed believe that light rail was an important milestone for change to improve the image of Third Street and to provide a more efficient and attractive mode of travel in comparison to the bus that would improve accessibility and integrate Bayview Hunters Point with the rest of the City". Transportation improvement should be the primary goal, not image.

	Page	Comment
18.	50 5-16 3rd para	EIS states "Residents of the City's southeastern quadrant have complained that the Corridor has a disproportionate share of facilities such as sewage treatment plants, hazardous waste recycling centers and other industrial facilities, but that they have not benefited from a fair share of public investments such as light rail lines. The Project is perceived by many area residents as an overdue public investment that will improve several neighborhoods that have been overlooked in the past, and that will strengthen local businesses." Transportation improvement should be the primary goal, not public investment.
18.	51 5-16	The No. 15 bus to Chinatown will be eliminated if the IOS is implemented. Many Asian residents travel between Third St and Chinatown. They would suffer until the NCS was completed 15 years later, and there is no assurance the NCS will be constructed. This raises environmental justice and mobility issues.
18.	52 5-39	Provide estimate of utilities consumption during operations.
18.	53 5-41 last para	The electrical power consumed by light rail vehicles is not pollutant-free. The Hunters Point and Potrero Hill power plants located near Third St. supply almost 50% of the city's electricity on some days. Add annual electrical power consumption, pounds of pollutants emitted, and impact on air quality.
18.	54 5-62 5th para	Provide estimate of hazardous waste generation rates during operation and intended disposal method.
18.	55 5-78	Show quantity of gaseous pollutants (e.g. solvents) released into atmosphere during facility operation.
18.	56 5-92	Noise from the new Breda cars is a major complaint from residents along the J, L and N lines. Mitigation may be necessary.
18.	57 6-4	Disagree with the EIS conclusion that Light Rail is superior to the No Build/TSM alternative. Light rail has no significant advantage over TSM in reliability, mobility, travel times (IOS), gasoline consumption and air quality. TSM is superior to light rail in decreasing traffic congestion, and TSM meets 3 of the 4 economic revitalization goals. See comments 8, 9, 10 and 21.
18.	58 7-22	It was difficult to obtain federal funding for the BART extension to SFO, an improvement that will serve the entire Bay Area. State why the New Central Subway will likely receive federal funds.
18.	59 8-3 Table 8-1	Service reliability must include criteria besides miles of exclusive right-of-way. Add flexibility, which is the ability for a vehicle to change its route. Obviously light rail has poor flexibility because it cannot simply drive around a problem.

	Page	Comment
18.	60 8-3 Table 8-2	A Third St. Muni Metro line would only reduce the travel time from the Bayview to Market/Third St. by 4-6 minutes, compared to the existing No. 15 bus line. This is not a significant time savings. A rating of very good for value of time savings, travel time and average speed is not justified for the IOS options.
18.	61 8-3 last para	The 9X bus is faster than light rail IOS for Visitation Valley residents. This must be considered.
18.	62 8-5 Table 8-4	Disagree with very good rating for air pollutants, greenhouse gases and energy consumption. See comment 8.
18.	63 8-5 1st para	The electrical power consumed by light rail vehicles is not "clean" (pollutant-free). The Hunters Point and Potrero Hill power plants located near Third St. supply almost 50% of the city's electricity on some days. Furthermore, Third St residents claim that pollutants from these power plants are causing high rates of asthma and other illnesses in the community.
18.	64 8-8 Table 8-8	Capital costs must be considered. See comment 29.
18.	65 8-8 Table 8-9	Cost effectiveness for No Build/TSM should be excellent, whereas IOS should be poor. TSM will cost \$54 million to accommodate 69,620 additional riders. Light rail will cost \$402 million to accommodate 72,070 additional riders.
18.	66 8-10 Table 8-11	TSM should not be rated poor for economic revitalization. TSM meets 3 of the 4 economic revitalization goals shown on p. 1-10.
18.	67 8-10 last para	The TSM alternative does in fact service the new Giants ballpark (Pac Bell Park). The No. 15 bus passes within one block of the new ballpark, as does light rail with the Fourth St configuration.
18.	68 8-11 Table 8-13	A Third St. Muni Metro line would only reduce the travel time from Third/Palou to Market/Third St. by 4-6 minutes, compared to the existing No. 15 bus line. This small difference does not justify rating the bus fair and IOS good to very good.
18.	69 8-11 Table 8-13	Travel time from Bayshore/Arleta to Chinatown must be based on riding the 9X express bus, not the 15 local bus. TSM should be rated better than fair. The IOS should be rated poor rather than n/a.
18.	70 8-11 Table 8-13	The IOS will eliminate 773 to 842 of the existing 1675 parking spaces along Third St (p. S-13). IOS cannot have an excellent or good rating for parking.
18.	71 8-12 1st para	EIS states cost per new rider is \$9.96 for IOS. Page 8-8 states cost is \$30.60. I calculate \$164,000 (\$402 million / 2450 new riders).

16.

18.

	Page	Comment
72	8-12 3rd para	Saving 4-6 minutes on a 44 minute trip from Third/Palou to Third/Market is not significant.
73	8-13 Table 8-15	No federal or state funds have been allocated for the NCS (p. 8-14). Financial commitment should be rated poor, not good. It will be difficult to obtain federal funding for \$675 million of the \$865 million cost for 1.75 miles of rail.

C. INDIVIDUALS

Comment Letter 18*

Max Pong
2354 18th Avenue
San Francisco, CA 94116

Response 18-0

See subsequent specific comments.

Response 18-1

Light rail is superior to bus service south of Mission Bay because it: 1) offers support for revitalization efforts; and 2) uses an exclusive right-of-way, improving service reliability and travel time. As is documented in the DEIS/DEIR, environmental impacts from the Light Rail Alternative can be mitigated to a less-than-significant level.

Response 18-2

In MUNI's opinion, connections to the MUNI Metro system and BART at Market Street are much more important than those available at Balboa Park Station. The 15-line bus does not offer adequate connections to the rail system at Market Street. The IOS would connect to four BART stations along Market Street.

Response 18-3

When the New Central Subway is operational, travel times from Arleta/Bayshore will be faster than the 9X-San Bruno express buses. In-vehicle travel time on the 9X would be 35 minutes, while in-vehicle time on the New Central Subway would be 30 minutes. (See page 8-4 of the DEIS/DEIR and the *Evaluation of Alternatives Report*, page 3-6.)

Response 18-4

Travel times under the mixed-flow option would be an average of two minutes longer than the exclusive right-of-way option during peak periods, between points south of the Third Street commercial core and Downtown. (See page 8-4 of the DEIS/DEIR and the *Evaluation of Alternatives Report*, page 3-6, available for review at the San Francisco Planning Department.)

Response 18-5

This is covered on page S-14 under the heading "Bicycle Circulation."

Response 18-6

See Responses 18-9 and 18-10.

Response 18-7

Results of noise impact analysis show no significant impacts (page 5-84). The DEIS/DEIR does acknowledge (page 5-88) that there will be vibration impacts (specific locations are cited) and

* Responses are to the detailed comments in the table attached to the cover letter.

indicates that these impacts can be mitigated through modifications to the vehicles' suspension system as well as special track treatment. It is important to note that the track along Third Street would be newly constructed and would be designed in such a manner as to minimize vibration impacts (refer to E-10 of "Staff Initiated Changes").

Response 18-8

Increased congestion from the TSM Alternative results from placing additional buses into service to meet anticipated demand, especially in Mission Bay, as well as a small increase in automobile trips, which would have been made on light rail. The air quality technical analysis projects a slight decrease in pollutants from the Light Rail Alternative on a citywide basis, though benefits of removing diesel buses would be more noticeable on a localized basis in the Corridor. The DEIS/DEIR acknowledges that traffic congestion would increase along Third Street for any alternative (refer to page 3-46, last paragraph). Although the Light Rail Alternative would require the removal of one traffic lane in each direction along Third Street, the increased congestion would be balanced by the increased transit ridership and fewer buses on Third. In addition, the New Central Subway would attract riders who may otherwise use private vehicles in the Downtown area, thereby addressing congestion problems along Stockton and Third Streets.

Response 18-9

A significant cause of transit unreliability in the Third Street Corridor is Downtown traffic congestion. Light rail operating in an exclusive right-of-way (or subway) will eliminate this problem. Crossover track will be placed at regular intervals along the alignment to allow LRVs to maneuver around blockages, if they happen to occur.

In regard to the new light rail extension to the Caltrain station, the current E-line is only a shuttle service. MUNI has not yet instituted through-routed service on The Embarcadero. When the Automatic Train Control System (ATCS) becomes operational this year and the N-line is through-routed to the Caltrain station, delays in the Market Street Subway will be mitigated.

Response 18-10

The connection currently provided by the 15-line bus between Visitacion Valley and Chinatown will be replicated by other bus lines (see IOS Bus Plans A and B on page 2-38). The New Central Subway will provide a high quality connection between Visitacion Valley and Chinatown.

Response 18-11

The Financial Feasibility (Section 7) of the DEIS/DEIR indicates that MUNI will be able to fund operating costs of the IOS and the New Central Subway, including drivers and supervisors. Because LRVs have greater capacity than buses, fewer drivers would be required for the Light Rail Alternative than for the all-bus No Build/TSM Alternative to meet 2015 demand. As presented in Table 2-13 (page 2-73), the 2015 annual operating costs are almost exactly the same for the IOS and the No Build/TSM Alternative, while the operating costs of the New Central Subway are slightly higher.

Response 18-12

The implementation dates for the New Central Subway are fairly far in the future (about 10 years) since MUNI will likely have to wait until the federal commitment to the BART extension to San Francisco International Airport is fulfilled before receiving funds for the New Central Subway. The new federal transportation act (TEA-21) identifies the Project in the New Starts Program as eligible for design and construction funds.

The New Central Subway differs from the BART extension project in that it is intended to improve transit service to an intensively used urban transit corridor, providing significant mobility improvements, reduction of congestion and connections to the future Chinatown and Geary rail corridors. Because the Project upgrades transit service in a local corridor and connects with BART, a regional system, the two projects are complementary.

Response 18-13

For the IOS, trips between the southern end of the Corridor and Chinatown would be accommodated on buses much as they are today. As indicated on page 2-38 of the DEIS/DEIR, IOS Bus Service Plan B offers expanded service (evenings and weekends) on the 9X-line. After the New Central Subway is constructed, travel times between Visitacion Valley and Chinatown will be shorter on light rail than the 9X. The all-bus alternative (No Build/TSM Alternative) would add buses to the 15-line to meet 2015 demand (but not increase 9X service). Since the buses would operate in mixed traffic, the increased traffic congestion along Third Street would slow bus service and reduce service reliability. Other bus alternatives were studied in the *Bayshore Transit Study* and rejected at that time. Nonetheless, if an exclusive right-of-way and stations were provided for buses along Third Street and Bayshore Boulevard, the all-bus alternative's capital costs would be substantially greater without providing the reduced emission, fuel, and noise advantages of light rail.

Response 18-14

See Responses 18-9 and 18-10.

Response 18-15

It is true that there would be fewer stops on the light rail line than there currently are for the 15-Third bus line. However, the light rail project includes very close stop-spacing (3-4 blocks) in Bayview where many trips originate. Station platforms will be accessible from either end of station blocks. By law, all stops on a new light rail line must be accessible to wheelchairs. LRVs will stop at high-level platforms, offering access for wheelchairs into any door of the vehicle (page 2-33 of the DEIS/DEIR). Like the MUNI Metro platforms along The Embarcadero, the ramps leading to the surface platforms would be relatively steeply inclined.

Response 18-16

In general, the light rail line is seen as a major, visible public investment which will increase the level of attractiveness, safety and lighting along the Third Street commercial core in Bayview, as well as concentrating foot traffic around stations and making access to and from the area easier. Although through-traffic may decrease, in the mixed-flow option, the retention of parking along

Third and the increased pedestrian traffic is expected to expand the overall customer base. MUNI has commissioned a report (*Third Street Light Rail Economic Revitalization Strategies Report*, available for review at the San Francisco Planning Department) which discusses these topics in greater detail.

Response 18-17

The electricity which powers MUNI's electric vehicles comes from City-owned Hetch-Hetchy via the PG&E grid, not from PG&E power plants in the City.

Response 18-18

In terms of traffic congestion and pollution, the IOS is environmentally superior to the No Build/TSM Alternative because it displaces diesel buses which emit more pollutants, produce more noise, and have higher fuel costs than light rail.

Response 18-19

Cost effectiveness is calculated according to FTA guidelines. Cost effectiveness is discussed in Section 8, page 8-7. A more detailed discussion of the methods of calculating cost effectiveness is presented in *Evaluation of Alternatives Report*, available for review at the San Francisco Planning Department, pages 3-24 and 3-25.

Response 18-20

The No Build/TSM Alternative was fully analyzed in the DEIS/DEIR document (pages S-31 – S34).

Response 18-21

The No Build/TSM Alternative as defined meets one of four economic revitalization objectives (maintain adequate auto/truck access), identified in Table 1-3 on page 1-10. Unlike the Light Rail Alternative, which fulfills all economic revitalization objectives, the No Build/TSM Alternative would not provide streetscape design or pedestrian circulation improvements in the Third Street commercial core.

Response 18-22

Although streetscape design was not included for the No Build/TSM Alternative, its inclusion would increase the alternative's capital cost substantially, without providing the same level of environmental benefits (e.g. reduced pollution, diminished noise, reduced fuel consumption) as light rail.

Response 18-23

As indicated in Response 18-9, MUNI Metro's reliability will improve once the new Automatic Train Control System is instituted this year. The public participation program provided a series of community meetings, public workshops and hearings to receive community input on the alternatives considered and the environmental analysis for the Project. Community preference has been overwhelmingly in favor of the light rail line.

Response 18-24

The Third Street Light Rail Project specifically addresses the transportation needs of the communities in the Third Street Corridor as well as the impacts of the alternatives considered for this Corridor. Congestion in the Market Street Subway will be alleviated by the new Automatic Train Control System.

Response 18-25

See Response 18-2.

Response 18-26

See Response 18-2. Also, the light rail line will provide a connection to the Caltrain Bayshore Station, which offers access to the airport.

Response 18-27

The second paragraph on page 1-7 states that the original streetcar line along Third Street “helped spur the development of the Bayview Hunters Point Commercial District.” This does not imply that the removal of the line depressed the neighborhood.

Response 18-28

Miles of exclusive right-of-way is an inexact, but quantifiable, criterion used by MUNI for measuring transit reliability.

Response 18-29

The Project goals and objectives were developed in concert with and approved by the Technical Advisory Committee and the Community Advisory Group and were described at community meetings. The Evaluation of Alternatives, (Chapter 8.0), uses financial and capital cost criteria for examining the trade-offs among alternatives.

Response 18-30

It is not be possible to expand the Islais Creek bus yard facility beyond the planned size because the site is constrained by other (private) uses and by Islais Creek.

Response 18-31

When Automatic Train Control System is operational, N and J trains will no longer be coupled in the subway. The N-line, generally operating with two-car trains, would be extended through and turned back south of Mission Bay, when demand warrants. The J-line, operating as one-car trains, would be extended the length of the Third Street Corridor alignment. The combination of the N- and J-lines operating in the Corridor could accommodate the travel demand projections presented in Table 3-6 (page 3-30). The Fourth Street bridge is being retrofit to accommodate light rail. The bridge is not a barrier to use of four-car trains. Surface platforms are designed to accommodate two-car trains only.

Response 18-32

Although a parking garage is being cleared in the environmental document, at this time MUNI does not intend to construct one initially (see E-1 of "Staff Initiated Changes").

Response 18-33

The level of service (number of LRVs per hour) at the Caltrain Bayshore Station can be adequately accommodated by a crossover configuration for turning back light rail trains. A turnaround loop would be constructed, perhaps in 2008, south of Mission Bay (using 18th, Illinois and 19th Streets) to provide increased service levels to Mission Bay when warranted.

Response 18-34

Engineering studies done for the Project indicate that the bridges can handle the necessary loads to accommodate light rail trains using the new Breda cars. (See *Study to Investigate the Structural Condition of Three Existing Steel Bascule Bridges Crossing Mission and Islais Creeks and the Third Street/Bayshore Boulevard Bridge Crossing US Highway 101*, ICF Kaiser Engineers, June 19, 1997, available for review at the San Francisco Planning Department.)

Response 18-35

Traffic studies show that the projected 2015 Level of Service at the Fourth/King intersection would be at "F" in the a.m. peak and at "E" in the p.m. peak whether or not a light rail line is built (Table 3-9, page 3-45). Most traffic related to the new ballpark would be on Third Street. Since light rail will operate northbound and southbound on the Fourth Street bridge (see E-7 of "Staff Initiated Changes") and benefit from an exclusive right-of-way and synchronized signalization at Fourth and King, traffic and pedestrian circulation impacts resulting from Pacific Bell Park events are not expected to substantially affect light rail operation.

Response 18-36

MUNI's analysis shows that single-car light rail service south of Mission Bay is the most efficient operating plan. A second car can always be added for special events (i.e. football games at Candlestick Park) when higher demand is expected. With initiation of service in the Central Subway, headways will be reduced to 5 minutes, which will increase capacity. While high capacity is one important advantage of light rail, there are others, including increased reliability and support for revitalization efforts, which are equally important.

Response 18-37

These safety issues, which are addressed on page 2-45 of the DEIS/DEIR, include: 1) use of an exclusive right-of-way for light rail; 2) signalization at grade crossings; 3) coordinated traffic signal phasing and timing to preclude motor vehicles from blocking light rail tracks; 4) use of raised station platforms; 5) inclusion of left-turn pockets; and 6) use of distinct pedestrian crosswalks.

Response 18-38

It will be necessary to operate the vehicles in the New Central Subway using the same control system used elsewhere in the MUNI Metro system. The IOS will not use the Automatic Train Control System for surface operation.

Response 18-39

The Project Financial Plan assumes a total of \$3.8 million for each new Breda light rail vehicle, including sales tax. Part of this cost is contained in other budget line items, such as signaling and communications.

Response 18-40

Cost estimates were calculated using the latest industry-standard techniques and figures. The MUNI Metro Turnback facility is not a good comparison since it is a much wider and more complex facility than a double-track subway tunnel. Also, the Turnback facility was constructed in an area where soil condition was much less favorable than it is in the area of the Central Subway.

Response 18-41

See Response 18-29.

Response 18-42

The bridges open an average of less than two times per day for only three to five minutes, and will not have a significant impact on transit reliability (page 2-30, fourth paragraph of the DEIS/DEIR).

Response 18-43

According to FTA guidelines, travel time is a significant factor in determining mode choice and, therefore, potential ridership for each of the alternatives. Table 8-1 on page 8-3 identifies this performance measure as a primary FTA criterion for evaluating project alternatives.

Response 18-44

Travel time calculations are developed to compare the service on the line or lines that would change as a result of project implementation. In the case of the Third Street Corridor, the existing 15-line would be bolstered with added capacity to meet 2015 demand (No Build/TSM Alternative) or replaced with the Light Rail Alternative. In accordance with FTA guidelines, the differences in travel times are used to evaluate alternatives, as presented in the Evaluation of Alternatives (Chapter 8.0).

Response 18-45

Travel times for the mixed-flow option would be approximately 90-120 seconds longer during peak periods than the times for the IOS and New Central Subway presented in Table 3-7 (page 3-33, fourth paragraph). During midday, evenings, and weekends, lesser delays are expected.

Response 18-46

On the first paragraph of page 5-5, the DEIS/DEIR states that light rail would provide improved transit access and highly visible public investment in the Corridor, which are elements that would support economic revitalization efforts, not cause it. Also it is inaccurate to state that light rail stations are just concrete bus stops in the middle of the street. These platforms will contain decorative canopies, street furniture and art elements. They will provide increased lighting to the surrounding neighborhood at night. Merchant complaints on Church and Taraval Streets were due to loss of curb parking caused by the installation of the key stop platforms. In the Third Street commercial core, the mixed-flow lane configuration would enhance the streetscape design (as illustrated in Figure 5-4) without affecting curb parking.

Response 18-47

The issues of service inadequacies in the Third Street Corridor are discussed on page 1-3 of the DEIS/DEIR.

Response 18-48

The second paragraph of page 5-12 states that the light rail line would allow residents of the Corridor to ride a more convenient transit service to jobs in Mission Bay and the South of Market.

Response 18-49

On page 1-3 second paragraph and in Table 1-3, the DEIS/DEIR indicates that the Project's economic development goals, which relate to improved business conditions, not "image," are of equal importance to the transportation goals.

Response 18-50

See Response 18-49.

Response 18-51

As indicated in the first three paragraphs of page 2-39 and Table 3-7 on page 3-31, bus service between Visitacion Valley and Chinatown (via the 9X-San Bruno Expresses) will be maintained and, possibly, improved by the IOS. The New Central Subway would reduce travel time between Visitacion Valley and Chinatown by providing a direct link between the two communities and offering exclusive rights-of-way for transit along most of the alignment between Visitacion Valley and Chinatown.

Response 18-52

The light rail line may result in an overall increase in energy consumption as compared to the No Build/TSM Alternative, but there would be a shift from fossil-fuel based autos and diesel buses to electric-powered light rail using electricity generated by Hetch-Hetchy. (See *Evaluation of Alternatives Report*, page 3-12.)

Response 18-53

See Response 8-17.

Response 18-54, 18-55

The quantity of degreasers, lubricants, cleaning solutions, solvents, etc. is not at issue. The type of lubricants, storage, handling and disposal methods are identified as part of the plans required under EPA guidelines and State and City law and ordinances as indicated on page 5-63. These laws and ordinances have been promulgated to prevent the release of these materials into the environment.

Response 18-56

See Response 18-7.

Response 18-57

See Responses 18-8, 18-9, 18-10, and 18-21

Response 18-58

See Response 18-12.

Response 18-59

See Response 18-28.

Response 18-60

These ratings are necessarily qualitative and are based on best judgement. As indicated in Table 8-2 on page 8-3, Value of Travel Time Savings is an evaluation criterion used by FTA. The value of the 4-6 minute travel time savings offered by the IOS is translated over a period of time into substantial savings for all 15-line riders, particularly by 2015 when traffic congestion along Third Street is expected to degrade bus operating times.

Response 18-61

9X express bus service would be continued in the IOS and, for Bus Plan B (see page 2-39), would have expanded weekday and weekend service. When the New Central Subway is completed, light rail will provide a shorter travel time between Visitacion Valley and Chinatown than does the 9X.

Response 18-62

See Response 18-8.

Response 18-63

See Response 18-17.

Response 18-64

See Response 18-29.

Response 18-65

See Response 18-19.

Response 18-66

See Response 18-21.

Response 18-67

Comparing Figure 2-2 (page 2-9) with Figure 2-4 (page 2-16) indicates that the 15-line in the No Project and No Build/TSM Alternatives passes within one block of the new Giants ballpark. The IOS would stop in front of the ballpark at the King/Second station stop.

The fourth sentence of the last paragraph on page 8-10 is revised to read:

"In addition, ~~it would not directly serve~~ the 15-line would be one block removed from the new Giants ballpark.

Response 18-68

See Response 18-60.

Response 18-69

The IOS does not serve Chinatown. Patrons wishing to travel between Visitacion Valley and Chinatown would use the 9X or an expanded service on the 9 (see Bus Plan A and B (page 2-38)).

Response 18-70

Table 8-13 (page 8-11) indicates that the No Build/TSM Alternative has a more favorable rating than the IOS for the criterion "Parking Supply Along Third Street in the Commercial Core." However, the City of San Francisco maintains a "Transit First" policy, which indicates that transit investments and transit operations should take precedence over the use of cars.

Response 18-71

The figure of \$30.60 per new rider (page 8-8) for the IOS is correct. This figure is calculated using revised FTA guidelines which do not take into account the value of travel time saved. The figure of \$9.96 on page 8-12 is calculated using the old FTA guidelines, which do take into account value of travel time saved. This is noted in footnote 1 in Table 8-13.

Response 18-72

See Response 18-60. The current travel time on the 15-line between Third/Palou and Market Street is 30 minutes, not 44 minutes. Using FTA criteria, the annualized value of travel time savings of 4 to 6 minutes per trip is substantial.

Response 18-73

The entire two-phase project is expected to cost \$1.3 billion in year of construction (escalated) dollars Table 7-18 . Of this amount, the City expects to ask the federal government to contribute \$656 million or 50%. This is well within the normal percentage for federal share.

#19

April 8, 1998

File No.: 98-SF-20E

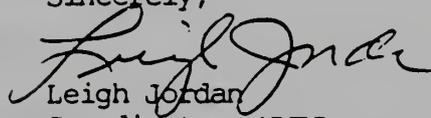
re: Third Street Light Rail Project; Case file 96.281E

Dear Staff:

Our office has no additional comment on the above referenced document. However, thank you for your continued concern for protecting historical resources.

19-1

Sincerely,


Leigh Jordan
Coordinator, NWIC

Comment Letter 19

**Leigh Jordan
Northwest Information Center**

Response 19-1

Comment noted. Office has no comments.

#20

RECEIVED

MAY 08 2008

Dear Ms. Gitelman, 5/5/08

CITY OF BOSTON
DEPT OF CITY PLANNING

Re: Third St. Light Rail Project

We are writing in order to
express our strong desire for
a light rail extension down
Third St. Such an extension
would be an invaluable asset
to the City and its residents.

We encourage the Planning Dept.
to do everything in its power to
bring this project to fruition.

Sincerely Yours,

Christine A. Beard

David McGoldblatt
1818 10th Ave



Hemp paper saves trees

20-2

Comment Letter 20

**Christine H. Beard
David M. Goldblatt
1818 10th Avenue
San Francisco, CA**

Response 20-1

Comment noted. Strong desire expressed for light rail along Third Street.

Comment Letter 20

**Christine H. Beard
David M. Goldblatt
1818 10th Avenue
San Francisco, CA**

Response 20-1

Comment noted. Strong desire expressed for light rail along Third Street.

Timothy Wells
1025 Powell Street, No. 24
San Francisco, CA 94108
415/677-8957

May 5, 1998

#21

RECEIVED
MAY 08 1998
DEPARTMENT OF PUBLIC WORKS

San Francisco Planning
Department
1660 Mission Street
San Francisco, CA 94103
ATTN: Hillary E. Gitelman
Environmental Review Officer

Dear Hillary,

In response to the Third Street Light Rail mailer I received, I would like to express my opinion for the record.

Decision 1:

Option 3: Maintain exclusive right-of-way for light rail with one narrow traffic lane in each direction. Allows bike lane.

21-1

Decision 2:

Option 2: Low/Hybrid Platforms.

21-2

Decision 3:

Option 1: Use the Fourth Street Bridge for the northbound and southbound travel.

21-3

Decision 4:

Option 1: Former Western Pacific Rail yard site-westerly side.

21-4

The above are my preferred options to the various alternatives presented in the mailer. Please accept my comments in lieu of my attendance at the May 7, 1998 Public meeting.

Sincerely,



Comment Letter 21

**Timothy Wells
1025 Powell Street, #24
San Francisco, CA 94108**

Responses 21-1, 21-2, 21-3, and 21-4

Comments noted. Preference expressed for exclusive light rail right-of-way, low/hybrid platforms, the exclusive use of the Fourth Street bridge for crossing Mission Creek, and the Western Pacific yard site.



RECEIVED
MAY 08 1998
CITY & COUNTY OF S.F.
DEPT OF CITY PLANNING

#22

6 May 1998

Page 1

QUARTET CREATIVE SERVICES, INC.
415.522.1777
FAX 415.522.1779
PO BOX 410835
SAN FRANCISCO
CA 94141-0835
10 ARKANSAS ST
SAN FRANCISCO
CALIFORNIA 94107
info@quartetcreative.com

Hillary E. Gitelman
Environmental Review Officer
San Francisco Planning Department
1660 Mission Street
San Francisco CA 94103

RE: Third Street Light Rail DEIS/DEIR

Dear Ms. Gitelman;

We recently received a copy of Third Street Light Rail Connection. As a result, I would like to take this opportunity to respond to the various decisions and their options.

First, I am writing as one of the owners of a small, flourishing film and video production company located in the Potrero Hill flats. We relocated here from the Mission District several years ago for many reasons, two of which were adequate street parking and easy access along Third street and the Embarcadero to clients and facilities downtown. The Giants ball park will change both of those benefits for us. In fact, the loft boom and the move of several large companies/schools into our area without additional parking facilities has already negatively affected us. As a result, we are **strongly in support** of any effective public transportation systems that will take pressure off the Third Street corridor and potential remove parked cars on the street. 22-1

Decision 1. How should Third Street be redesigned for light rail in the Bayview Commercial Core? **We support Option 1.** It is the safest alternative. 22-2

Decision 2. What type of platform should be used in the Third Street Light Rail Line? **We support Option 2.** Low & Hybrid platforms make the most sense, regardless of cost. 22-3

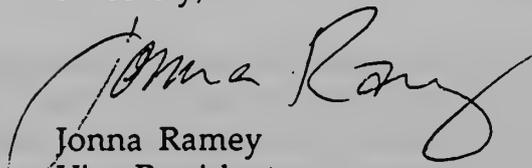
Decision 3. How should the light rail line cross Mission Creek? **We support Option 1.** Use the 4th Street bridge for both directions and avoid the congestion that **already** exists at 3rd and Berry. 22-4

Decision 4. Where should the new Metro East light rail maintenance facility be located? **We support Option 1.** This choice is an obvious no- 22-5

brainer, the westerly side of the former WP rail yard site is the most logical, convenient, safest and least expensive.

Finally, we believe that the entire line should be put in immediately, all the way to Little Hollywood. This is a mode of transportation in a most deserving part of town that should have been in place decades ago. Third Street is dangerous for pedestrians who live and work in the area. This light rail system can only help the neighborhood. And, it effectively opens the Bayview commercial core to an influx of trade from downtown and vice versa. Its good for the City. Put the **entire** system in place as quickly as possible.

Sincerely,



Jonna Ramey
Vice President

Comment Letter 22

**Jonna Ramey, Vice President
Quartet Creative Services, Inc.
10 Arkansas Street
San Francisco, CA 94107**

Responses 22-1, 22-2, 22-3, 22-4, and 22-5

Comments noted. Same preferences expressed as above (Response 21-1).

Response 22-6

Comments noted. Expressed preference to expedite construction of light rail line to Little Hollywood.

RECEIVED

MAY 19 1998

CITY AND PEOPLE
DEPARTMENT OF PLANNING

1661 Palou Ave.
San Francisco, Calif. 94124
May 5, 1998

#23

Planning Commission
& War Memorial Veterans Building
401 Van Ness Avenue
San Francisco, Ca.

RE: The Third Street Light Rail Project

Dear Commissioners:

My name is Dorris Vincent. I have lived in the Bayview Hunters Point Community for thirty eight years. I am a member of several Community Organizations along with being a member of the Third Street Light Rail Community Advisory Group.

After attending many Light Rail Meetings the Community has made it VERY CLEAR that they want option B (mixed-flow) with low platforms "They have said don't come up with any other options."

23-1

I personal agree with them !

We know that is slower but we see that as a PLUS cars can't fly down Third Street as if they are on the freeway!!!

23-2

And we believe that people will have time to see the Business's and come off the train/Cars and shop causing the revitalization of our Community.

I know you will listern to us approve the light rail for the Bayview Area Mixed Flow with the Low Platforms is what we

all expect !!!

Thanks very much for your time.

Yours truly
Dorris M. Vincent
Dorris M. Vincent

Comment Letter 23

**Dorris Vincent
1661 Palau Ave.
San Francisco, CA 94124**

Responses 23-1 and 23-2

Comments noted. Expressed preference for mixed-flow option with low platforms.

SAN FRANCISCO PLANNING COMMISSION
REGULAR MEETING

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PUBLIC HEARING
ON THE
DRAFT ENVIRONMENTAL IMPACT STATEMENT/
ENVIRONMENTAL IMPACT REPORT
FOR THE
SAN FRANCISCO MUNICIPAL RAILWAY
THIRD STREET LIGHT RAIL

REPORTER'S TRANSCRIPT OF HEARING

THURSDAY, MAY 7, 1998

2:15 P.M.

A P P E A R A N C E S

1
2 VICE-PRESIDENT:

3 HECTOR CHINCHILLA
4

5 COMMISSIONERS:

6 DENNIS ANTENORE

7 CYNTHIA JOE

8 ANITA THEOHARIS

9 RICHARD M. HILLS
10

11 ZONING ADMINISTRATOR:

12 ROBERT W. PASSMORE
13

14 DIRECTOR OF PLANNING:

15 GERALD G. GREEN
16

17 COMMISSION SECRETARY:

18 LINDA D. AVERY
19
20
21
22

23 TAKEN AT:

24 401 Van Ness Avenue

25 San Francisco, California

1 P R O C E E D I N G S

2 MR. GREEN: This is the hearing on the
3 Draft EIR/EIS for the Third Street Light Rail
4 Project.

5 The purpose of this hearing is to
6 gather input, public input on the Draft EIR/EIS
7 which the Planning Department has prepared in
8 partnership with the Federal Transit
9 Administration, other City departments, and
10 technical consultants.

11 All the comments that are received
12 today from the public or from members of the
13 Commission are to be transcribed and will be
14 responded to in writing in the final EIR/EIS.

15 Written comments will also be received
16 and may be submitted to the Planning Department,
17 the Environmental Review Officer of the department,
18 until the close of business on May 19th. It should
19 be noted that written and oral comments will be
20 treated equally and will be responded to in the
21 final EIR/EIS.

22 Before we begin public testimony, I've
23 asked Emilio Cruz, the Director of Muni, to provide
24 a little context or some background regarding the
25 project and to discuss the objectives and the

1 issues that remain to be resolved.

2 It should also be noted that Emilio
3 has set up a Policy Steering Committee, which I
4 serve on.

5 Emilio has also set up a Technical
6 Advisory Committee, which members of the Planning
7 Department also participate in.

8 Emilio has provided us with ample
9 opportunities to express our opinions and to
10 provide a planning perspective at all phases of
11 this project. And I am under the impression that
12 we will continue to be allowed to do so as a
13 preferred alternative is selected and the EIR is
14 finalized.

15 I'm sure the Commission is aware that
16 the Third Street Light Rail Project is a very
17 important and vital transportation improvement for
18 a very vital and important corridor of the City.
19 It is along the Third Street Corridor that the
20 Department expects to see major new development
21 within the next 10 to 20 years.

22 As an example, the Giants ballpark,
23 the Mission Bay Project, the University of
24 California campus at Mission Bay, Moscone Center
25 expansion, the Trans Bay area, and the Hunters

1 Point Bayview revitalization, as well as the
2 shipyard revitalization, and, of course, the
3 development at Candlestick Point.

4 All of these are projects which will
5 benefit the Third Street Project and it should be
6 noted that the Third Street Project will also
7 benefit from those developments.

8 Having said that, I would like to now
9 ask Emilio to come forward for a quick briefing,
10 and then we should move on to the public comment.

11 I am sure that Emilio and I would
12 certainly like to entertain questions, but I would
13 like to remind you that the purpose of this hearing
14 is simply to take input from the public and not
15 necessarily to get into a discussion about the
16 issues that remain outstanding.

17 Emilio.

18 COMMISSIONER CHINCHILLA: Director
19 Cruz, welcome.

20 MR. CRUZ: Thank you, Mr. President,
21 members of the Commission. My name is Emilio Cruz,
22 Director of Public Transportation for the City and
23 County of San Francisco.

24 We have before you a very exciting
25 project that we are moving along on and, as the

1 Director has indicated, is at the final
2 environmental draft form.

3 This project originated as the result
4 of the Loma Prieta -- post-Loma Prieta earthquake
5 property sales tax. And the City decided that they
6 wanted to expand the rail corridors. We looked at
7 a couple primary corridors and Third Street was
8 identified, so we moved forward with that.

9 Third Street is an important corridor
10 for the City. There are a lot of opportunities,
11 both from the transportation perspective, as well
12 as economic development. And it is critical that
13 we do go all the way down at least to the Bayshore
14 Station. That allows us the kind of activity to
15 help transportation, makes our system more
16 regionally interactive, and allows for better
17 expansion in the future.

18 There is consideration as to what
19 would happen if we went further down into
20 Candlestick Point, if there was some development
21 there, that would present the need for extended
22 transportation. That is always an option.

23 The way this environmental document is
24 written, we end at the Bayshore Station. But we
25 could possibly amend the document and extend the

1 project beyond Bayshore Station into Candlestick
2 Point, if the need were to arise in the future.

3 Alternately, another project could be
4 developed to do that. So nothing that we are doing
5 would preclude us from extending past Bayshore
6 Station at any time in the future.

7 What I would like to do today -- and
8 just for our information, there is the Third Street
9 Rail Project Corridor map, is there hopefully
10 visible to people, again, going from the extension
11 of the Embarcadero Project all the way down to the
12 Bayshore Corridor.

13 Our IOS, or Initial Operating Segment,
14 would involve extending the tracks, which today end
15 at 6th and King Street, across the channel, down
16 through the Bayshore Corridor all the way to the
17 Bayshore -- I'm sorry, the Third Street Corridor to
18 the Bayshore Station.

19 That, we believe, we could complete by
20 the end of the year 2003, and would involve not
21 only the capital infrastructure there, but also the
22 purchase of about 25 brand-new light rail vehicles.

23 That's why, as part of the project, we
24 envision building a new light rail facility in the
25 area, either on Cargo Way or at what we refer to as

1 the Western Pacific site. Not only will that
2 facility house the 25 new vehicles, but we will
3 take vehicles out of our Green Division, which
4 right now is running overcapacity, move them over
5 to this facility, and we will be able to further
6 improve our preventive maintenance program.

7 Our second phase, or Phase II, would
8 involve a new Central Subway. And if you see on
9 that map, when you come north of the channel, the
10 lines become dotted lines. At the point they are
11 dotted is when we are actually underground.

12 What we hope in the future to be able
13 to do is extend underground all the way into the
14 Chinatown/Union Square area connecting somehow with
15 the current Market Street subway.

16 The Phase II will involve not only
17 that additional construction but purchase of some
18 more light rail vehicles and further work on the
19 Metro East facility.

20 We believe that the current
21 facility -- the current document as Phase I has
22 four primary areas that are still very open to
23 public consideration. We are very interested to
24 hear the public comments that you receive today.

25 Obviously, we have three alternatives:

1 A Build alternative; a No Build alternative, which
2 would use simply transportation improvement, which
3 would be basically improving a bus system along
4 Third Street; and the required No Build alternative
5 or No Project. Those are the three primary
6 alternatives before you.

7 Within the Build alternative, there
8 are four primary options that are still being
9 considered. Those are what the lane
10 configuration -- primarily in the Bayview
11 Commercial Core, which is about a nine-block core
12 area.

13 I will say that with regard to the
14 Policy Steering Committee that we have, we have
15 involvement from many City departments. Director
16 Green represents you on that Policy Steering
17 Committee. We also have the Redevelopment Agency,
18 Parking and Traffic, Public Works, the
19 Transportation Authority, a funding agency,
20 Department of Real Estate, the P.U.C., the Arts
21 Commission, and the Mayor's Office, to make sure
22 that we are not only coordinating the
23 transportation issues, but the economic development
24 issues.

25 With regard to the Bayshore Core, the

1 lane configuration basically involves whether we
2 should have an exclusive right-of-way, a shared
3 lane; and if it's a shared lane, to what extent,
4 how many blocks would the shared lane be.

5 We believe that any of those
6 alternatives are viable. Obviously, an exclusive
7 right-of-way gives us, as the transportation
8 perspective, the most flexibility and the best
9 operating system.

10 But recognizing that we are going into
11 somebody's neighborhood and there are other
12 elements, other needs; there is the need for
13 pedestrian access, there's the need for economic
14 development, there's the need for loading for the
15 businesses in that area, it is likely that we would
16 wind up with a mixed use. And the exact design of
17 that mixed use is outlined in the environmental
18 document.

19 We believe that as far as performance
20 criteria, we will have -- if we go with No Build
21 alternative, we'll be limited to about 135,000
22 passengers a day that we expect by the year 2015.

23 If we go ahead and build the rail
24 alternative, the better service would probably
25 cause an increase of about 2,500 to 3,000

1 passengers a day. Ultimately, if we got to Phase
2 II, we believe we would get up to 142,000
3 passengers a day. So as you see, each one of these
4 alternatives creates more passenger use.

5 The reason why we anticipate that
6 growth is because of the decreases in travel time.
7 If we leave it alone, obviously there's no decrease
8 in travel time. If we build a light rail system,
9 we'll decrease travel times by 6 to 11 minutes,
10 depending on the point of origin along Third
11 Street. And if we go all the way to the subway,
12 we'll decrease it by 11 to 15 minutes. So by
13 making public transportation more attractive, we do
14 draw more people to it.

15 Schedule reliability is something that
16 we will be looking at. And as I said, connection
17 to other facilities is important for us. So we do
18 want to make sure we are connecting at the Bayshore
19 Station as well as at the terminal for Caltrain at
20 Fourth and Townsend.

21 With regard to the second major
22 alternative that we are looking at is the type of
23 platform that we will be using. Today we operate
24 high-level platforms in the subway and also on the
25 Embarcadero, if any of you have had an opportunity

1 to ride the E-Line, you see a center-loading,
2 high-level platform. It is a very good design for
3 us. It provides the best accessibility for all of
4 our patrons, whatever their mobility conditions
5 might be.

6 We also do have, obviously, low-level
7 loading out in the Avenues, prior to modifications,
8 back when the system basically picked up literally
9 right in the middle of the street.

10 We also have a third element now that
11 we are using, which is what we refer to as our "key
12 stops," where we have modified low-level platforms
13 and added a high-level ramp, so that a passenger
14 who is in a wheelchair can go up the ramp.

15 It necessitates the trains make two
16 stops; the first stop at a high level to pick up
17 the passengers in a wheelchair, the second stop at
18 a low-level to pick up any remaining passengers.
19 So we have the flexibility to do all of them.

20 What we are considering at this point
21 is that center-loading platform, which works very
22 well on the Embarcadero, could also be used very
23 effectively on Third Street. There is the option
24 of low-level hybrid. And what the community has
25 been looking at is alternatives whereby

1 center-loading platforms will be high, side-loading
2 platforms will be low.

3 One of the real concerns that comes up
4 always is, when people hear about a 33-inch high
5 platform, they think it's a barrier, both physical
6 as well as visual. What we have done, and these
7 are fresh off the print, is taken a photograph --
8 and we will leave these here for the remainder of
9 the meeting -- of Third Street and then what would
10 happen if we built the center-loading, 33-inch
11 platform on Third Street. And you can see that
12 there is virtually no impact to the passengers from
13 one side of the street looking over to the other
14 side.

15 We had a similar issue on the
16 Embarcadero, a concern, which everybody could
17 experience right when they walked out of the
18 building. We took some shots across Van Ness
19 Avenue. And if you are standing on the sidewalk of
20 Van Ness Avenue and you're looking across the
21 street, the ground level of the median on Van Ness
22 Avenue is 30 inches higher than where you're
23 standing on the sidewalk.

24 So it gives you a perspective as to
25 what a 33-inch platform will do in the center of a

1 roadway. Van Ness Avenue is 30 inches higher in
2 the middle than it is at the sidewalk level.

3 So that is one of the major
4 alternatives that needs to be considered in the
5 document that, again, we are anxious to hear the
6 public comment on.

7 The third primary issue is where the
8 rail should cross Mission Creek. There is two
9 alternatives in the document; one is a two-way
10 couplet, using Third Street in a northbound
11 direction, Fourth Street in the southbound
12 direction. The other alternative is to put both
13 directions on the Fourth Street Bridge itself.

14 The advantages of putting --
15 separating them is that northbound light rail has
16 an exclusive -- a lane on Third Street. So on the
17 Third Street Bridge itself, we do get an exclusive
18 right-of-way. And it's slightly easier to connect
19 to the Central Subway for Phase II.

20 The disadvantages are that the light
21 rail service may be disrupted during high use of
22 Third Street, especially during the game days when
23 there might be a lot of traffic coming up Third
24 Street. The sooner we got off onto Fourth Street,
25 that would be better for us, and we would still be

1 only a block away from the ballpark.

2 The King Street intersection becomes
3 very congested, and it varies. So, again,
4 automobile congestion might impact our ability to
5 stay on time. And then there's a poor northbound
6 connection to Caltrain because Caltrain is down at
7 Fourth Street.

8 The advantages of staying both on
9 Fourth Street are that we get that better
10 connection to Caltrain and that's going to reduce
11 construction costs by about \$2 million, by not
12 having to retrofit Third Street Bridge.

13 The disadvantages of Fourth Street
14 alone are that the northbound and southbound light
15 rail must operate a shared lane with automobile
16 traffic. So, considering the traffic on Fourth
17 Street, it may or may not be a disadvantage. And
18 northbound riders have a slightly longer travel
19 time by taking that diversion off of Third Street
20 and Fourth to ultimately get to the same connection
21 point.

22 Finally, the fourth decision that we
23 believe is critical is the location of Metro East.
24 Both of the pieces of property that we are looking
25 at are Port-owned property and Port-managed

1 property. One of them is Cargo Way, which is -- if
2 you can see, the site a little further south, and
3 then Western Pacific, just the other side of the
4 channel.

5 The Cargo Way site was the original
6 site identified. The major advantage of it is that
7 it's cheaper and it's easier to get our hands on.
8 But, like they say, you get what you pay for. The
9 reason why it's cheaper is that it has
10 significant -- significantly poor geotechnical
11 conditions, it has hazardous waste issues, and so
12 it becomes more difficult to build on.

13 In addition to that, the site is not
14 rectangular; therefore, it creates some design
15 alternatives that need to be put into the Metro
16 East facility.

17 Western Pacific site, we could either
18 use the eastern side of Western Pacific or the
19 western side of Western Pacific, and we really are
20 leaving that option open to the Port. In either
21 one of those, the alternative could be a
22 rectangular-designed building, better design for
23 us; disadvantage is that it's slightly more
24 expensive in price.

25 The overall project is in the

1 neighborhood of \$400 million for the track
2 construction and the Metro East facility. And, as
3 I said earlier, our target for Phase I completion
4 is the year 2003 operation.

5 Phase II is still a little in the air
6 because it will rely on funding. This document
7 will allow us to pursue federal funding in the
8 near -- in the future for Phase II, even though we
9 plan on using all local funding for Phase I through
10 the Transportation Authority.

11 Thank you.

12 COMMISSIONER CHINCHILLA: Thank you.

13 MR. GREEN: Well, again, our staff of
14 Muni, as well as Hillary Gitelman, stand ready for
15 any questions you have, but I suggest we get right
16 into the public comment.

17 COMMISSIONER CHINCHILLA: All right.
18 Why don't we do that then.

19 The first speaker card I have is
20 Pauleen Peele.

21 MS. PEELE: Thank you, Commissioners.
22 I'm a resident of Bayview Hunters Point. I worked
23 for years on the South Bayshore Plan with Peter
24 LaBree, Cheryl Townsend.

25 One of the things that we went for

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D-1

1 support on was extending the light rail past their
2 point, past Mission Bay, which at the time was the
3 plan. So I've been supportive of this for a very
4 long time.

5 I'm here also to speak for Southeast
6 Alliance for Environmental Justice, Claude Wilson,
7 the president, couldn't be here, and also for the
8 New -- Merchants, which is the district council
9 for -- because the president couldn't be here.

10 But we are all in strong agreement.
11 We support the Build, but only on the condition
12 that it includes the mixed flow. We are
13 adamantly -- as opposed to residents -- as a part
14 of speaking to residents, adamantly opposed to the
15 dedicated line because of the impact it would have
16 on the beautification, because of the bike lane,
17 because of the pedestrian situation.

18 And, as I say, we would go all the way
19 to the No Build were we not able to get the mixed
20 flow.

21 Thank you for your time.

22 COMMISSIONER CHINCHILLA: Paul Gloss. D-2

23 MR. GLOSS: Thank you, Commissioners.

24 I'm also a resident of the Bayview. I
25 am a Representative for Roses, which is a group of

1 the community. We have been active out there for a
2 long time. We are very excited and we very much D-2
3 want this project to go forward, but, again, we
4 want the mixed flow.

5 Basically, we must have wider
6 sidewalks. The sidewalks are very narrow now, they
7 are only 10 feet, and the mixed flow is the only
8 viable option which would increase those sidewalks
9 a little bit. It's only two feet, but we need it.

10 The people must come first here, and
11 it's that sidewalk. We want to revitalize the
12 business in that area, and that little bit of
13 sidewalk means a tremendous amount to us.

14 The mixed flow also gives us much
15 better parking for our merchants, which the other
16 plans would take a lot away. It gives a better
17 plan for beautification with this. The wider
18 meridian looks like we could even have our own set
19 of palm trees.

20 We need to make that -- at least that
21 nine-block section, the center of Bayview, a very
22 beautiful place. That has got to be important.
23 It's got to be a place where the City can be proud
24 of. We are only talking about a nine-block area,
25 we need that mixed flow.

1 It also gives us more left turns,
2 which we need when we live up there. Third Street
3 is very critical. It's the only possible artery
4 out there, so we can't substitute it.

5 Thank you very much.

6 COMMISSIONER CHINCHILLA: Sophie
7 Maxwell.

D-3

8 MS. MAXWELL: Good afternoon. My name
9 is Sophie Maxwell, and I am chairman of the Bayview
10 Hunters Point PAC. And, as you know, we are going
11 through a survey and we are determining whether or
12 not we are going to be part of a redevelopment
13 area. And I think I've said all this before, you
14 all look so familiar.

15 But at any rate, we have looked at
16 every single aspect of Bayview Hunters Point; we
17 are looking at transportation, we are looking at
18 our air, our power, our housing, everything. And
19 when we came to this, I must say that Muni has left
20 no stone unturned to make sure that there is public
21 participation.

22 And from this, the public has
23 overwhelmingly said that they wanted mixed flow.
24 And for all the other reasons that everybody has
25 stated here, those are the same reasons; because of

D-3

1 the economic development, because of the
2 beautification, because of -- what were some of the
3 other ones, Pauleen? -- right, the sidewalk, and
4 all those great things.

5 We are looking for Bayview Hunters
6 Point to be a part of San Francisco in every
7 respect; to look like it, to feel like it, to have
8 the openness, the friendliness. And so we need
9 those kind of things.

10 We also do not want rapid transit down
11 the middle of Third Street. It just does not work.
12 We are looking at trying to have an area where
13 people feel comfortable in walking, where your
14 children don't have to look twice before -- I mean,
15 they can look twice, but you are not afraid that
16 they are going to get run over by a streetcar. So
17 I think it's very important.

18 And we are thinking 9 blocks, where we
19 really need 12 blocks of commercial area. And we
20 certainly -- so in looking at that, we certainly
21 don't need less, we need more, if anything.

22 Thank you for your consideration, and
23 I know you are going to do the right thing. Thank
24 you.

25 COMMISSIONER CHINCHILLA: Ena Aguirre. D-4

1 MS. AGUIRRE: Good afternoon,
2 Commissioners. My name is Ena Aguirre, and I live
3 in Bayview Hunters Point. I agree with all the
4 statements that have been made before that, you
5 know -- but my concern really is that a lot of -- I
6 mean, I, for one, find it difficult to go through
7 this whole, you know, book.

8 And I don't know what I'm missing. I
9 mean, I really -- I'm used to going to other
10 meetings where -- about the shipyard, where the
11 experts are -- you know, they all got up, and from
12 listening to them, I was able to understand what
13 might be some of the negative stuff.

14 In here, I feel kind of lost. I mean,
15 I don't know. Maybe there is something in here
16 that I -- you know, I did read it, but it really
17 didn't mean too much to me really, to tell you the
18 truth.

19 And so, I mean, I'm just hoping that
20 we are doing the right thing. And I'm hoping that
21 we are doing the right thing for the residents of
22 Bayview Hunters Point. And I'm hoping that we are
23 doing the right thing for the City and County of
24 San Francisco.

25 And, you know, I -- one of my concerns

1 personally was just, you know, the left turns. I
2 was concerned that all of those things that's in
3 there are taken care of.

4 So thank you very much for taking the
5 time to listen to us. Thank you.

6 COMMISSIONER CHINCHILLA: I have no
7 other speaker cards. Any other member of the
8 public care to address the Commission at this time?

9 All right, if not, we will entertain
10 comments from the Commissioners.

11 And let me jump in. Just a couple of
12 concerns that I have. D. 5

13 First and foremost is, I guess, the
14 conclusion that the draft report draws, that there
15 is no way to mitigate, you know, the one lane in
16 the core or corridor. And that troubles me for a
17 couple of reasons.

18 As you all know, the Third Street
19 Corridor is vital, and it's a very sensitive area.
20 And I think that transit, as welcome as it is in
21 the area, can have a negative impact if not
22 carefully monitored.

23 We should learn from the lessons that
24 we have had before us, for example, the Key Stops.
25 The Key Stops in San Francisco, you know, great,

1 great -- provide accessibility to the riders, but, 0.5
2 depending on where they are at, they either have
3 been good for the area or destroyed an area.

4 Let me give you a comparison: The
5 29th and Church Street, you know, there was a lot
6 of neighborhood opposition to that, but Muni and
7 Planning went out of their way to sort of mitigate
8 as much as possible the impact that the Key Stops
9 would have on the local businesses. And they did
10 that by realigning parking in the areas. And that
11 commercial strip thrives today.

12 Ocean Avenue, on the other hand, was
13 destroyed by a couple of Key Stops. It wiped out
14 small businesses. And we should learn -- and it's
15 very necessary to have these things, but we should
16 learn from these experiences.

17 And I'm afraid that the report does
18 not adequately address how we could mitigate those
19 impacts, if the alternative is to do the
20 right-of-way.

21 Also, I don't think that the document
22 adequately indicates how Muni could -- or how the
23 flow of traffic could be mitigated. For example,
24 if they have this mixed flow concept go in, there
25 has to be a way that the traffic will not impede

1 what we are trying to accomplish here. And what we
2 are trying to accomplish is a transit system that
3 is efficient.

4 I know Director Cruz at one point
5 informally mentioned the exclusive lanes during
6 commute hours, the diamond lanes. And, since I'm a
7 driver in the City, I know they work pretty well.
8 They keep me out of those lanes and Muni goes right
9 through. And it's important to keep that. So I
10 don't see that happening in the report, so that may
11 need to be expanded on.

12 I also question the conclusion that is
13 drawn in the draft document as it relates to
14 economic feasibility. One of the conclusions it
15 draws is that we are going to have a steady supply
16 or an available supply of labor to get this done on
17 budget and on time.

18 But I question the accuracy of that
19 conclusion, in light of the reports that have been
20 published in the press recently, saying that we
21 have the benefit of going through a building boom.
22 And we can't find labor. And this is not just a
23 regional phenomenon, it's a national phenomenon.
24 So I question that conclusion.

25 And I can't stress enough the

1 importance of the areas of controversy. This will
2 make or break the area. So I'm sure that the
3 people that are involved in, Mr. Green, that you'll
4 pay special attention to that. Because the areas
5 of remaining controversy are probably the most
6 critical to the system itself.

7 Those are all my comments.

8 Commissioners, any other comments?

9 By the way, to Ms. Aguirre, I will say
10 that maybe the reason you don't know what's missing
11 is because nothing is.

12 MS. AGUIRRE: Thank you, very much,
13 for telling me.

14 COMMISSIONER CHINCHILLA: Otherwise,
15 it's a very comprehensive document.

16 Commissioners, any other questions?

17 Okay. With that, we will close the
18 public hearing.

19 Staff, do you have anything else to
20 add? Ms. Gitelman? Mr. Green?

21 We are accepting written comments?

22 MR. GREEN: Yes, again, up to the
23 close of business, that would be 5:00 o'clock on
24 May 19th. They can be delivered to the Planning
25 Department, specifically to Ms. Hillary Gitelman,

1 the Environmental Review Officer for the
2 Department.

3 COMMISSIONER CHINCHILLA: Okay.

4 That's good. Thank you.

5 ---oOo---

6 (Whereupon, the proceedings concluded
7 at 2:42.)

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1 STATE OF CALIFORNIA

2 :

3 CITY AND COUNTY OF SAN FRANCISCO

4 I hereby certify that the proceedings in the
5 foregoing transcript was taken down by me, in the
6 within-entitled cause; that said transcript was
7 taken at the time and place herein named; that the
8 transcript is a true record of the proceedings as
9 reported to the best of my ability, a duly licensed
10 Certified Shorthand Reporter and a disinterested
11 person, and was thereafter transcribed under my
12 direction into typewriting by computer.

13 I further certify that I am not interested
14 in the outcome of said action.

15

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RACHEL FERRIER, CSR # 6948

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D. PUBLIC HEARING RESPONSES

Response D-1 Ms. Pauline Peele

Comment noted. This resident of Bayview Hunters Point, and representative of the Southeast Alliance for Environmental Justice and the Bayview New Merchants Association, expressed support for the mixed-flow option for the Third Street commercial core to allow for street beautification, bicycle use and improved pedestrian space.

Response D-2 Mr. Paul Gloss

Comments noted. This resident of Bayview and representative of the community group “Roses”, expressed support for the mixed-flow option to allow for improved sidewalks, retention of parking for merchants, and more left turns along the Third Street commercial core. A request for a nine-block area to be landscaped was also made in the comments. MUNI's urban design consultant is currently working with the communities along the light rail line to develop station design and landscaping concepts. Two Corridor-wide workshops took place this summer. Neighborhood workshops to refine and select the design concepts will be conducted in September and October.

Response D-3 Ms. Sophie Maxwell

Comments noted. This speaker is Chairman of the Bayview Hunters Point Policy Advisory Committee. MUNI was complimented on their public participation. Support for the mixed-flow option was expressed, stating that economic development related to street beautification and sidewalk space and an open, friendlier commercial area would be improved. A request for a 12-block area rather than a 9-block area was expressed. Throughout the public participation process, neighborhood residents and business representatives expressed the preference for the nine-block segment between Kirkwood and Thomas Avenues as the critical portion of the Third Street commercial core requiring special design treatments.

Response D-4 Ms. Ena Aguire

A concern about left turns was expressed. As the DEIS/DEIR describes on page 3-43, left turns would be retained in the mixed-flow option from all side streets. This mixed-flow option was selected by the Public Transportation Commission at their June 23, 1998, meeting as part of the Locally Preferred Alternative.

Response D-5 Commissioner Chincilla

As discussed on page 3-44 of the DEIS/DEIR, implementation of either of the Third Street commercial core one-lane options (Options 2 and 3) would result in severe traffic congestion in both directions of Third Street during peak as well as during non-peak periods. Since local traffic (as well as through traffic) demands are greater than the capacity offered by one traffic lane in each direction, no reasonable mitigation measures are available to maintain just one lane in each direction and still achieve acceptable and safe traffic operations within the commercial core.

The mixed flow option (Option 4), which was selected on June 23, 1998, by the San Francisco Public Transportation Commission as part of the Locally Preferred Alternative, would consist of two traffic lanes in each direction along Third Street, with each direction's inside lane

shared by both automobiles and light rail vehicles. Under the mixed flow option, acceptable traffic operations would result during both peak (LOS D or better conditions would result during the a.m. peak hour and LOS C or better would result during the p.m. peak hour) and non-peak periods, although up to 90 seconds of extra travel time would be added to a light rail train's one-way travel time due to automobile interference. If the inside travel lanes were reserved exclusively for light rail vehicles during commuter hours (using treatments such as raised medians or diamond lanes), severe traffic congestion would occur similarly to that expected under either of the one-lane options, i.e., all of the study intersections would operate at unacceptable conditions (LOS E or F), bottlenecks would occur where the traffic lanes transition from two to one, substantial traffic diversion into the neighborhoods would result, slow-moving vehicle queues may block vehicles turning to or from side streets, and emergency response times would be significantly reduced (see page 3-44 of the DEIS/DEIR).

Regarding key transit stops and the potential impacts to on-street parking, it should be noted that the mixed-flow option would actually add about 15 new parking spaces, over existing conditions, in the Third Street commercial core, as discussed on page 3-59 of the DEIS/DEIR. The mixed-flow option, which maintains curb parking on Third Street, was chosen by the Public Transportation Commission because of the preference expressed at the public meetings by community representatives. To further enhance parking opportunities within the commercial core, the DEIS/DEIR recommends that before or during final design, MUNI, DPT, and the Redevelopment Agency jointly coordinate the development of a parking plan, including consideration of off-street parking (see page 3-61). In addition to parking, MUNI is working with the communities, including business representatives, to develop streetscape design concepts that can support the revitalization of local businesses and provide greater access to their stores/offices. As noted on page 3-60, over 70 additional parking spaces could be gained on close-in side streets by reconfiguring the existing parallel parking on the side of commercial businesses and institutional uses to perpendicular parking.

In addition to the public hearings on the DEIS/DEIR, MUNI has held over 120 community meetings to resolve these areas of controversy prior to the final design of the project.

E. Staff Initiated Changes

E. STAFF INITIATED CHANGES

On June 23, 1998, the Public Transportation Commission selected the following design options for the Light Rail Alternative:

- Mixed-flow option along the nine-block Third Street commercial core;
- High platforms for all light rail stations;
- Bi-directional crossing of Mission Creek on the Fourth Street bridge; and
- The western end of the Western Pacific site for a new LRV maintenance and storage facility.

As a result, Figures 2-4 and 2-5 on pages 2-16 and 2-17, respectively, are revised. Staff initiated revisions are described below.

E-1 Caltrain Bayshore Station Area

MUNI may include a smaller, surface parking lot instead of a parking structure in the Bayshore Station plan. The last paragraph on page 2-18 is revised.

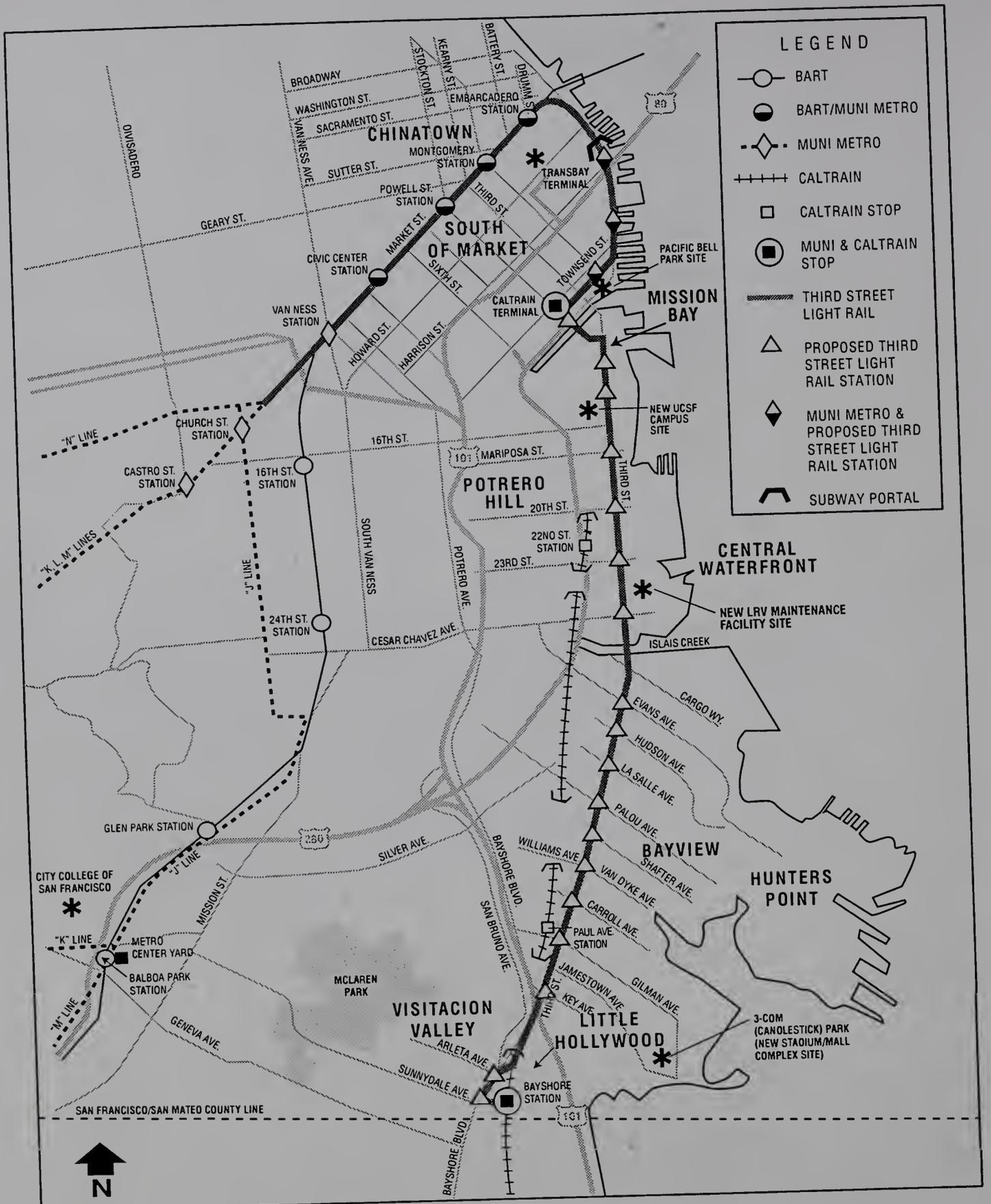
The plan for the intermodal facility, indicated in **Figure 2-7**, incorporates two boarding tracks, a center boarding platform, eight bus bays for MUNI, SamTrans, and private shuttles, a curbside drop-off area, and, if demand warrants, a parking structure. Ticket vending machines, sheltered boarding areas, and other passenger amenities would be included. The one- or two-level parking structure would provide up to 285 spaces for light rail passengers and additional spaces for those displaced at the rear of the Pacific Lithograph facility. Alternatively, MUNI may construct a 50-145 space surface parking lot, requiring fewer parcels and retaining the UPRR spur track, instead of the parking structure. The station area would be designed to facilitate cross-platform transfers with a relocated Caltrain Terminal, which would move south a few hundred feet.

The privately-owned parcels that may be acquired for the station area contain two businesses, an animal trapper and a storage company. Consequently, Table 5-1 on page 5-8 is revised.

TABLE 5-1

ACQUISITION AND RELOCATION REQUIREMENTS (Revised August 26, 1998)

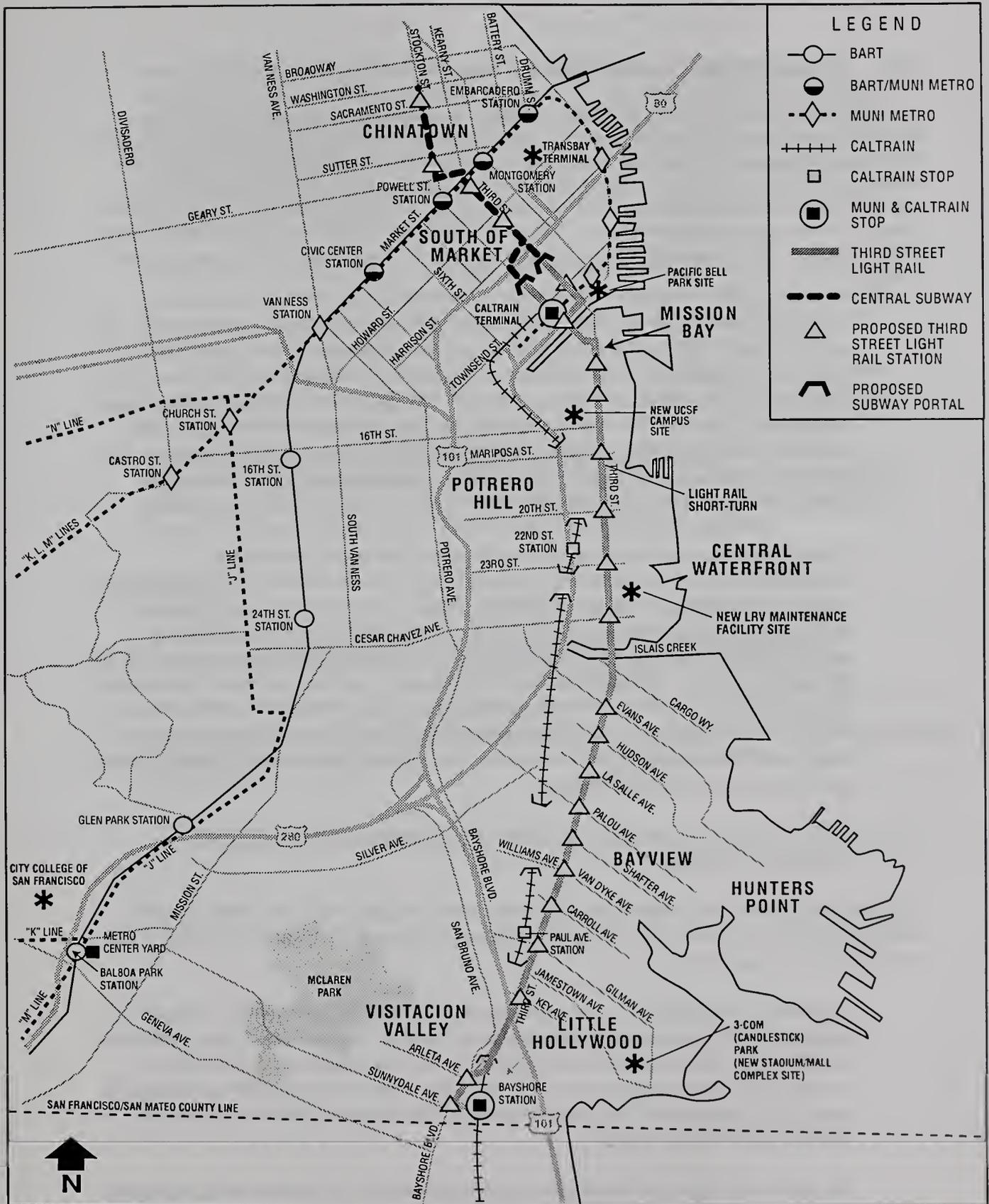
LOCATION	REASON FOR ACQUISITION/SEGMENT	ACQUISITION	RELOCATION
North of County line between Bayshore Blvd. and Tunnel Avenue	Bayshore Station/IOS	several parcels containing a vacant industrial structure and abandoned maintenance-of-way sheds	No <u>Two businesses with one to two employees</u>



J96-082.14b Mc4

FIGURE 2-4

LIGHT RAIL ALTERNATIVE – INITIAL OPERATING SEGMENT
 (via Market Street Subway and the MUNI Metro Extension)
Third Street Light Rail EIS/EIR



J96-082.15b Mc4

FIGURE 2-5

LIGHT RAIL ALTERNATIVE - NEW CENTRAL SUBWAY

(via Third and Stockton)

E-2 Bayshore/Blanken Intersection Realignment

The Bayshore/Blanken intersection will be redesigned to accommodate a center high-platform immediately to the south of the intersection. This redesign will expedite traffic movements between Blanken and Arleta and Bayshore Boulevard by creating separate intersections for Blanken and Arleta with Bayshore Boulevard. Truck movements to Tunnel Avenue from Bayshore Boulevard will be rerouted to this intersection. This rerouting will require action by the Parking and Traffic Commission to allow truck movements on one block of Blanken between Bayshore Boulevard and Tunnel Avenue. The second and third paragraphs on page 2-21 and Figure 2-8 on page 2-22 are revised.

At Bayshore Boulevard, the double-track alignment would curve north into the median of Bayshore Boulevard on a dedicated four- to six-inch raised trackway. A raised trackway, paved with textured concrete or cut stone paving blocks, would be accessible to emergency vehicles but would discourage vehicular traffic. Two lanes of the six-lane roadway would be dedicated to the light rail line. Intersections would be regraded to conform with the raised trackway **and a median strip in the middle of Bayshore would be retained**. The roadway width would allow parking to be retained throughout the length of Bayshore Boulevard except at the Sunnydale station.

The light rail line would continue north on Bayshore Boulevard curving past Arleta/Blanken Avenues, ascending to the Highway 101 overcrossing. **To accommodate a station immediately south of the Bayshore/Blanken intersection and to facilitate traffic flow at this intersection, Blanken will be realigned. Pending engineering analysis, Blanken will intersect Bayshore in a "T" design immediately to the north of the current location.** North of Blanken, the alignment would be constructed on retained fill approximately 2 meters (6 feet) high for a distance of 215 meters (705 feet) to reduce the gradient from nine to seven percent (Figure 2-8). The retained fill would block left turns from Bayshore onto Tunnel Avenue and the southern end of Hester Avenue, diverting these movements to Blanken Avenue.

E-3 Highway 101 Overcrossing Area Light Rail Alignment, Station, and Traffic Circulation Revisions

The light rail alignment and traffic circulation in the area of the Highway 101 overcrossing is revised as follows (the fourth, fifth, and sixth paragraphs of page 2-21, Figure 2-8 on page 2-22, and Table 5-1 on page 5-8):

Approaching the Highway 101 overcrossing, the light rail alignment would descend to grade and shift to the east side of the Bayshore Boulevard right-of-way. To accommodate this shift in the alignment, Bayshore Boulevard would be widened on the east and a retaining wall installed along the easterly slope near a motel and restaurant, requiring a 6-meter (19.5-foot) strip of City property bordering the Bayshore right-of-way near the northern end of Hester Avenue.

The shift in the alignment would allow northbound vehicles on Bayshore to be segregated into Third Street-bound traffic and northbound Bayshore/Highway 101-bound traffic (refer to Figure 2-8). At the Bayshore/Hester intersection (north end), traffic from Hester could turn northbound toward Third Street or toward Bayshore Boulevard/Highway 101 on-

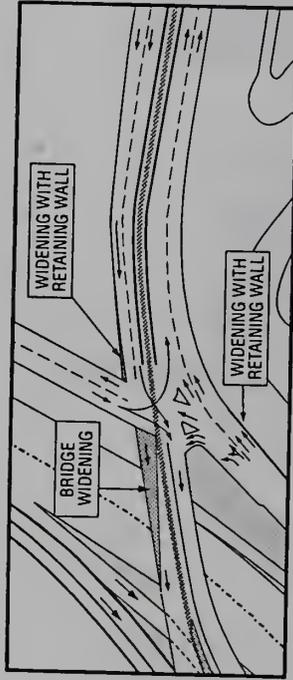
ramp. Traffic reversing direction from Bayshore Boulevard southbound to northbound Third or the northbound Highway 101 on-ramp will have two left turn lanes to accommodate the volume of traffic anticipated in 2015. The additional left turn lane will require a 3.5-meter (11.4-foot) strip of Caltrans right-of-way to construct a retaining wall. The complex turning movements at the Bayshore/Hester intersection in conjunction with light rail operation would be controlled by signalization. (See Chapter 3.0, Transportation Analysis)

After passing over Highway 101, the light rail alignment would descend onto Third Street in a retained cut which would reduce the steep nine percent grade to five to eight percent. The retained cut would be placed in the middle of Third Street 1.5 to 2.0 meters (6 to 8 feet) below street level and extend for 275 meters (900 feet), eliminating left turn movements between Third Street and Le Conte Avenue, Keith Street, and Key Avenue. Access to Third Street for residents living along Le Conte, Keith, and Key west of Third would be replaced by extending Keith Avenue northeast along the existing Caltrans right-of-way to the intersection of Third/Jamestown. The proposed station location at Jamestown would be changed to Third between Le Conte and Key. The center high-platform would eliminate curb parking in this block. Pedestrian access across Third Street in this area would be provided at Jamestown and Key Avenues.

TABLE 5-1

ACQUISITION AND RELOCATION REQUIREMENTS
(Revised August 26, 1998)

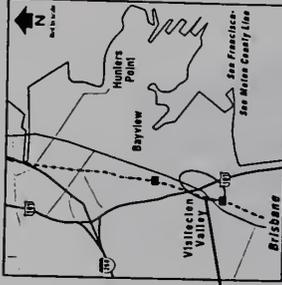
LOCATION	REASON FOR ACQUISITION/SEGMENT	ACQUISITION	RELOCATION
<u>West side of Bayshore at Highway 101</u>	<u>Line/IOS</u>	<u>Vacant public right-of-way</u>	<u>No</u>



LEGEND

..... LIGHT RAIL ALIGNMENT

Note: Light rail is at grade unless indicated otherwise.



**AREA SHOWN IN
DETAIL BELOW**

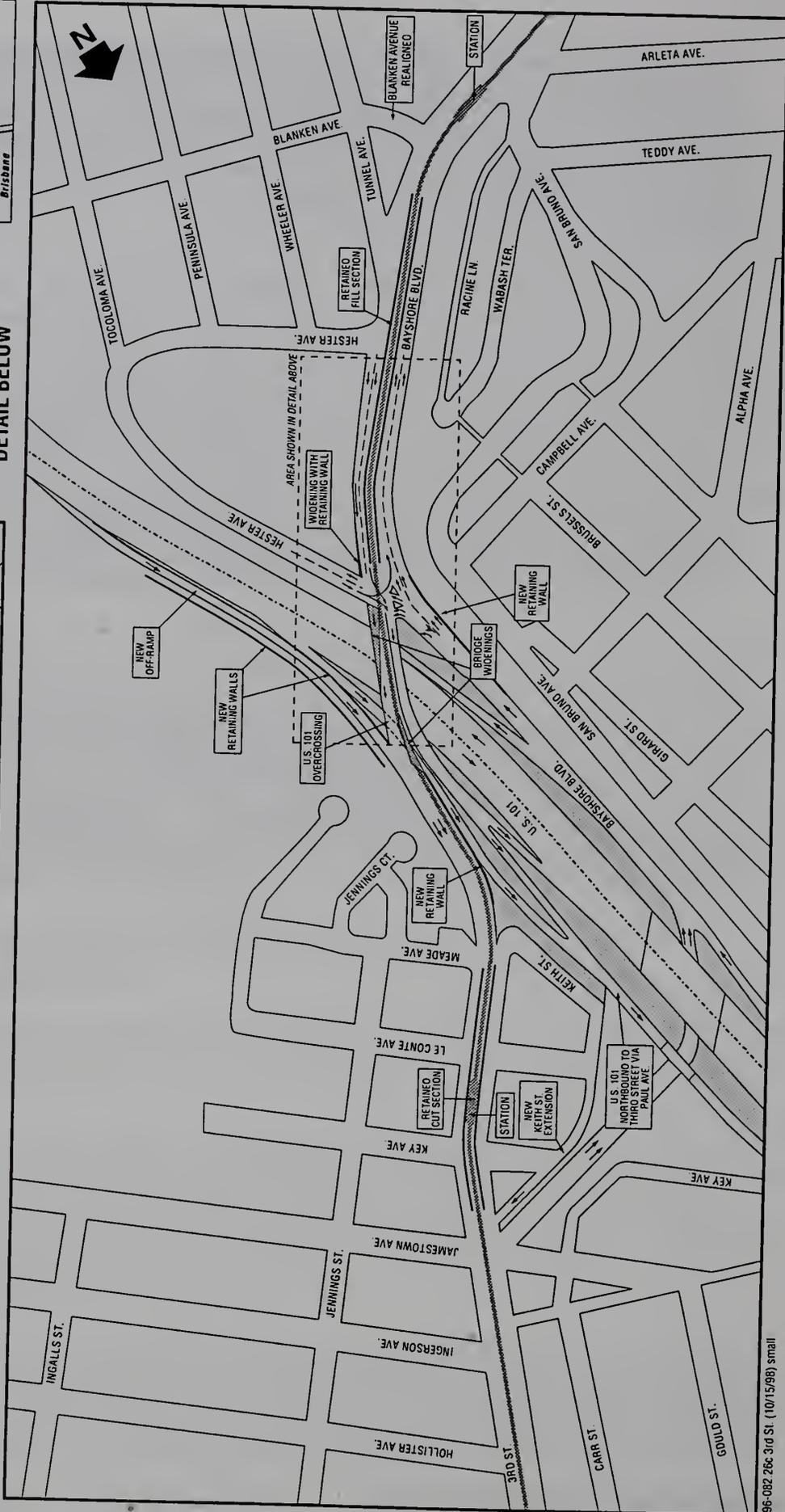


FIGURE 2-8

HIGHWAY 101 OVERCROSSING PLAN

Third Street Light Rail EIS/EIR

(Revised 10/15/98)

E-4 Third/Jamestown Station Relocation

The proposed station at Third/Jamestown is changed to Third/Key. The first paragraph of page 2-23 and Figure 2-8 and Table 5-1 on page 5-8 are revised.

... ramp, which would require a 244-meter (800-foot) long, nine-meter (30-foot) high retaining wall along Bayview Hill, would allow vehicular traffic to merge into the northbound traffic lanes on Third Street without crossing the light rail alignment. ~~Between Jamestown and Ingerson, a station located in that block would require a three-meter (10-foot) strip from a business parking area that borders the public right-of-way on the west.~~

TABLE 5-1

ACQUISITION AND RELOCATION REQUIREMENTS
(Revised July 21, 1998)

LOCATION	REASON FOR ACQUISITION/ SEGMENT	ACQUISITION	RELOCATION
Northwest corner Third Street and Jamestown Avenue	Station/IOS	Truck storage parking area for pest control business	No

E-5 Selection of the Mixed-Flow Option for the Third Street Commercial Core

On June 23, 1998, the Public Transportation Commission selected the mixed-flow option for the nine-block Third Street commercial core between Thomas and Kirkwood Avenues. The mixed-flow option requires an additional LRV because light rail would travel in the same lane with other vehicles along this segment, resulting in slower travel times than the dedicated-lane option. The second paragraph of page 2-23 is revised accordingly.

The design of the light rail alignment and station locations in the nine-block Third Street commercial core between Thomas and Kirkwood Avenues is being coordinated with Redevelopment Agency-assisted community initiatives to revitalize the Bayview commercial district. As an alternative to the same alignment configuration in this nine-block segment as in the remainder of Third Street, the community elected to study four design options for Third Street containing varying lane, parking, sidewalk, and streetscape configurations. A mixed-flow option was included as one of the four design options because of community concern for retaining existing parking along Third Street. On June 23, 1998, the PTC selected the mixed-flow option as the preferred design for the nine-block commercial core. Models for two of the design options are presented in Figure 2-9.

Table 5-1 on page 5-8 is also revised to indicate that if the triangular parcel on the southeast corner of Third/Oakdale is acquired, one business would be displaced.

TABLE 5-1

ACQUISITION AND RELOCATION REQUIREMENTS
(Revised August 23, 1998)

LOCATION	REASON FOR ACQUISITION/SEGMENT	ACQUISITION	RELOCATION
Southeast corner Third Street and Oakdale Avenue	Station/IOS	small vacant commercial building	No <u>Yes, one business</u>

The fourth and fifth paragraphs of page 2-39 which describe the IOS light rail vehicle requirements incorporating the mixed-flow option are revised.

A summary of the operating statistics for the Light Rail Alternative – IOS is presented in Table 2-6. Compared with the existing fleet, the table indicates that the IOS, operating in mixed-flow conditions along the nine-block Third Street commercial core, would require an additional ~~25~~ 26 LRVs (including spares) to meet 2015 peak demand for the MUNI Metro system, including extension of the J-line along Third Street. To meet peak service requirements in 2003, the implementation year for the IOS, ~~15 of 25~~ 16 of the 26 LRVs would be needed.

To meet 2015 demand, ~~25~~ 26 new LRVs would be required, increasing MUNI’s total fleet size, including spares, to ~~161, or 25~~ 162, or 26 more than for the No Project and No Build/TSM Alternatives. ~~If the mixed-flow option were selected for the Third Street commercial core, one additional LRV would be required due to the slightly slower travel times along this segment.~~

The fifth paragraph of page 2-57 and the second paragraph of page 2-58 which identify the New Central Subway light rail vehicle requirements incorporating the mixed-flow option are revised.

A summary of operating statistics for New Central Subway is presented in Table 2-8. The table indicates that, compared with the IOS, the New Central Subway would require three additional peak period LRVs and one spare, primarily because of the additional route miles of the New Central Subway and the increased service frequencies. ~~In addition, in the mixed-flow option, one additional LRV would be required to compensate for the slower travel times through the Third Street commercial core.~~

The Light Rail Alternative – New Central Subway would require three additional LRVs beyond the requirements for the IOS. In this scenario, MUNI’s total LRV fleet size, including spares, would be ~~164~~ 165.

Table 2-6 on page 2-40, Table 2-8 on page 2-58, and Table S-2 on page S-9, which present the IOS and New Central Subway operating statistics, are also revised.

TABLE 2-6

ANNUAL OPERATING STATISTICS FOR
 LIGHT RAIL ALTERNATIVE - INITIAL OPERATING SEGMENT
 (Revised July 21, 1998)

Alternative	Peak Headways: 15 Line	Diesel/Trolley Peak Demand (Systemwide)	Total Annual Bus Hours (Systemwide)	Peak Headways: Third Street Light Rail	LRV Fleet Peak Demand (Systemwide)	Annual LRV Car-Hours (Systemwide)
Existing (1998) (No Project Alternative)	6 minutes	373 diesel buses/ 263 trolley buses	2.29 million	--	107 LRVs	395,600
No Build/TSM (2015)	5 minutes	400 diesel buses/ 269 trolley buses	2.40	--	107 LRVs	395,600
Light Rail Alternative - IOS (2015)	--	Plan A: 370 diesels/ 269 trolleys Plan B: 369 diesels/ 269 trolleys	Plan A: 2.26 million/ Plan B: 2.27 million	6 minutes	128 <u>129</u> LRVs ⁽¹⁾	467,200 ⁽²⁾ <u>471,500</u> ⁽¹⁾

Notes: (1) ~~One additional LRV, adding 4,300 car hours, would be required if the "mixed flow" option were selected for the Third Street commercial core.~~
 (2) ~~1~~ Assumes one-car trains in the peak and midday on the J-line, which would operate on Third Street.

TABLE 2-8

ANNUAL OPERATING STATISTICS FOR
 LIGHT RAIL ALTERNATIVE - NEW CENTRAL SUBWAY
 (Revised July 21, 1998)

Alternative	Peak Headways 15 Line	Diesel/Trolley Peak Demand (Systemwide)	Total Annual Diesel/Trolley Bus Hours (Systemwide)	Peak Headways: Third Street Light Rail	LRV Fleet Peak Demand (Systemwide)	Annual LRV Car-Hours (Systemwide)
Existing (1998) (No Project Alternative)	6 minutes	373 diesel buses/ 263 trolley buses	2.29 million	--	107 LRVs	395,600
No Build TSM (2015)	5 minutes	400 diesel buses/ 269 trolley buses	2.40 million	--	107 LRVs	395,600
Light Rail Alternative - IOS (2015)	--	Plan A: 370 diesels/ 269 trolleys Plan B: 369 diesels/ 269 trolleys	Plan A: 2.26 million/ Plan B: 2.27 million	6 min.	128-129 LRVs ⁽⁴⁾	467,200 ⁽²⁾⁽¹⁾ 471,510
Light Rail Alternative - New Central Subway (2015)	--	Plan A: 365 diesels/ 258 trolleys Plan B: 365 diesels/ 258 trolleys	Plan A: 2.23 million/ Plan B: 2.23 million	5 min.	131-132 LRVs ⁽⁴⁾	503,800 ⁽²⁾⁽¹⁾ 507,000
Notes: (1) One additional LRV adding 3,200 car-hours would be required if the "mixed-flow" option were selected for the Third Street commercial core. (2) (1) Assumes one-car trains operating in the peak and midday for the IOS and for the New Central Subway.						

TABLE S-2

ANNUAL OPERATING STATISTICS FOR
THE PROJECT ALTERNATIVES
(Revised July 21, 1998)

Alternative	Peak Headways 15 Line	Diesel/Trolley Peak Demand (Systemwide)	Total Annual Diesel/Trolley Bus Hours (Systemwide)	Peak Headways ⁽¹⁾ : Third Street Light Rail	LRV Fleet Peak Demand (Systemwide)	Annual LRV Car-Hours (Systemwide)
Existing (1997-1998) (No Project Alternative)	6 minutes	373 diesel buses/ 263 trolley buses	2.29 million	--	107 LRVs	395,600
No Build/TSM (2015)	5 minutes	400 diesel buses/ 269 trolley buses	2.40 million	--	107 LRVs	395,600
Light Rail Alternative - IOS (2015)	--	Plan A: ⁽²⁾ 370 diesels/269 trolleys Plan B: 369 diesels/269 trolleys	Plan A: 2.26 million/Plan B: 2.27 million	6 minutes	128 <u>129</u> LRVs ⁽³⁾	467,200 ⁽⁴⁾⁽²⁾ <u>471,500</u>
Light Rail Alternative - New Central Subway (2015)	--	Plan A: 365 diesels/258 trolleys Plan B: 365 diesels/258 trolleys	Plan A: 2.23 million/Plan B: 2.23 million	5 minutes	131 <u>132</u> LRVs ⁽³⁾	503,800 ⁽⁴⁾⁽²⁾ <u>507,000</u>
Notes: ⁽¹⁾ "Headways" refers to the time between transit vehicles on a given line ⁽²⁾ Plans refer to Bus Route Plans associated with the Light Rail Alternative. ⁽³⁾ One additional LRV adding 3,200 car hours would be required if the "mixed flow" option were selected for the Third Street commercial core. ⁽⁴⁾⁽²⁾ Assumes one-car trains operating in the peak and midday for the IOS and for the New Central Subway.						

E-6 Selection of the Western Pacific Site (West End) for the Proposed New LRV Maintenance Facility

On June 23, 1998, the Public Transportation Commission selected the Western Pacific (west end) site for the proposed new LRV maintenance and storage facility. The fourth paragraph on page 2-27 and the first paragraph on page 2-40 are revised accordingly.

A short-turn loop from Third following 18th, Illinois, and 19th Streets would permit an extension of the N-Judah to the Mariposa Street station to serve Mission Bay. The track on Illinois between 18th and 19th would provide an area for 2-car trains to layover. Main lead track to the new LRV maintenance facility would be installed either on ~~Cargo Way~~ or 25th Street, depending on the site selected.

~~MUNI proposes~~ **On June 23, 1998, the Public Transportation Commission elected to** construct a new LRV maintenance and storage facility on 5.3 hectares (approximately 13.0 acres) of land either on the eastern or western portion of an abandoned Western Pacific rail yard site, which is being transferred to the Port of San Francisco.

Additionally, page S-4 of the Executive Summary is revised.

The Light Rail Alternative would construct a light rail line linking some or all of the Chinatown, Downtown, South of Market, Potrero Hill, Bayview Hunters Point, and Visitacion Valley/Little Hollywood neighborhoods, primarily along Third Street. In addition, a new light rail maintenance and storage facility would also be constructed on approximately 5.3 hectares (13 acres) of ~~eastern or western~~ sections of the former Western Pacific rail yard and north of Pier 80 ~~or on a 7.1 hectare (17.5 acre) Port-owned site along Cargo Way near Pier 90.~~ The line would operate at service levels comparable to existing MUNI Metro service frequencies and hours.

The impact of the new light rail maintenance and storage facility on the City's Wastewater system is expanded, as indicated in the second paragraph of page 5-41.

No existing, major utilities would be affected at the Western Pacific or Cargo Way sites, except for the combined sewer system on Third Street. Additional capacity will be provided by the construction of a new sewer line on Illinois Street. The diameter of the planned line will be expanded from 60 to 66 inches to provide sufficient capacity to accommodate the proposed light rail maintenance facility at the Western Pacific site. The Municipal Railway is negotiating with the San Francisco Public Utilities Commission to share the cost for a portion of the planned sewer project.

E-7 Selection of the Fourth Street Bridge for Crossing Mission Creek

The Public Transportation Commission selected the Fourth Street bridge for a bi-directional crossing of Mission Creek by the light rail line. The second, fourth, and last paragraphs on page 2-30 are revised accordingly.

~~Two options are being studied for crossing Mission Creek. In the first option, On June 23, 1998, the PTC selected the Fourth Street bridge for the light rail line to cross Mission Creek. To reach the Fourth Street bridge from Owens Street, both light rail tracks would turn west onto Owens Street from Third and then travel across the Fourth Street bridge to King Street (Figure 2-14).~~

~~The second option~~ An alternative alignment would have split the alignment into a one-way couplet crossing Mission Creek (Figure 2-15).

~~From either Fourth or Third/Fourth,~~ the IOS would turn into the median of King Street and join the existing MUNI Metro Extension track along King and The Embarcadero to the Market Street Subway portal north of Folsom Street.

E-8 Changes to IOS Station Locations and Selection of High Platforms for Light Rail Stations

The PTC selected high platform design for all IOS surface stations. In addition, MUNI staff has initiated changes to certain station locations in the southern portion of the Corridor. The third and fifth paragraphs on page 2-33 are revised accordingly.

On June 23, 1998, the PTC adopted the position of exclusively using high platforms at stations along the Third Street light rail line, after MUNI is considering two design options for the station platforms: high and "hybrid" low platforms (Figures 2-16A/B/C).

High or hybrid low platforms would be placed in a staggered side-platform configuration (northbound and southbound platforms placed on the outside of the tracks caddy-corner from each other).

The first paragraph on page 2-37 and Table 2-5 on page 2-38 are revised to indicate that Visitacion Valley would have two light rail stations along Bayshore Boulevard.

Table 2-5 presents the proposed light rail station locations south of King Street along Third/Fourth and Bayshore Boulevard. The table indicates the type of platform (center or side) and the exact location of the platforms. ~~In Visitacion Valley along Bayshore Boulevard, only one station, designated by shading, would be built if high platforms were used.~~ **Center-platform stations would be located in Visitacion Valley along Bayshore Boulevard immediately south of Blanken Avenue and between Visitacion and Sunnydale Avenues.**

TABLE 2-5

**THIRD STREET LIGHT RAIL PROJECT PROPOSED STATION LOCATIONS
(THIRD/KING TO THE CALTRAIN BAYSHORE STATION)**

(Revised July 24, 1998)

GENERAL LOCATION	TYPE	NORTHBOUND SIDE PLATFORM	SOUTHBOUND SIDE PLATFORM
Fourth/King	Center Platform Station	N/A	N/A
Third/Mission Rock	Side Platform Station w/Left Turn Lanes	Mission Rock to Owens	Mission Rock to Rincon
Third/South	Side Platform Station w/Left Turn Lanes	South to South Mall	South to 16th St.
Third/Mariposa	Side Platform Station w/Left Turn Lanes	Mariposa to 16th St.	Mariposa to 18th St.
Third/20th Street	Side Platform Station w/Left Turn Lanes	20th St. to 19th St.	20th St. to 22nd
Third/23rd Street	Side Platform Station w/Left Turn Lanes	23rd St. to Tubbs	23rd St. to 24th St.
Third/Cesar Chavez	Side Platform Station w/Left Turn Lanes	Chavez to 26th St.	Chavez to Marin
Third/Evans	Side Platform Station w/Left Turn Lanes	Evans to Davidson	Evans to Fairfax
Third/Hudson	Side Platform Station w/Southbound Left Turn Lane	Hudson to Galvez	Hudson to Innes
Third/LaSalle ⁽¹⁾	Side <u>Center</u> Platform Station No Left Turn Lanes	LaSalle to Kirkwood <u>N/A</u>	LaSalle to McKinnon <u>N/A</u>
Third/Palou-Oakdale ⁽²⁾	Center Platform Station w/Northbound Left Turn at Oakdale <u>via Mendell Street</u> ; Southbound Left Turn at Quesada	N/A	N/A
Third/Shafter ⁽³⁾	Side <u>Center</u> Platform Station No Left Turn Lanes	Shafter to Revere <u>N/A</u>	Shafter to Thomas <u>N/A</u>
Third/Williams-Van Dyke	Side Platform Station w/Left Turn Lanes	Williams-Van Dyke to Underwood	Williams-Van Dyke to Wallace
Third/Carroll	Side Platform Station w/Left Turn Lanes	Carroll to Bancroft	Carroll to Donner
Third/Gilman	Side Platform Station w/Left Turn Lanes	Gilman to Fitzgerald	Gilman to Hollister
Third/ Jamestown Ingerson <u>LeConte-Key</u>	Side <u>Center</u> Platform Station No Left Turn Lanes	N/A	N/A
Bayshore/Arleta Raymond <u>Blanken</u> (hybrid low platform only)	Center Platform Station	N/A	N/A
Bayshore/Leland Visitacion (high platform only)	Center Platform Station	N/A	N/A
Bayshore/Visitacion-Sunnydale (hybrid low platform only)	Center Platform Station	N/A	N/A
Caltrain Bayshore Station	Center Platform Station	NA	N/A

Notes: ⁽¹⁾ If the mixed flow right-of-way option were chosen for the Third Street commercial core, this would be a center platform station between Kirkwood and La Salle with no left turn lanes in that block.
⁽²⁾ If the mixed flow right-of-way option were chosen for the Third Street commercial core, this would continue to be a center platform station between Oakdale and Palou, but left turns from Third to westbound Oakdale Avenue would occur via Mendell Street.
⁽³⁾ If the mixed flow right-of-way option were chosen for the Third Street commercial core, this would be a center platform station between Shafter and Revere with no left turn lanes in that block.

E-9 Light Rail Alternative Capital Cost Estimate Revisions

The capital cost assumptions for the Light Rail Alternative have changed based on the options selected by the PTC at the June 23, 1998, meeting. The mixed-flow option in the Third Street commercial core, the use of high platforms throughout the light rail alignment, and the need for the installation of floating slabs rather than ballast mats to mitigate vibration in certain locations has increased the total capital cost for the IOS to \$408.9 million. As a result, the last paragraph on page 2-70 and the first two paragraphs and Table 2-12 on 2-71 are revised.

As indicated in Table 2-12, the total capital cost for the IOS, including the purchase of ~~25~~ 26 additional LRVs, to accommodate 2015 demand and the construction of the initial phase for the new LRV maintenance and storage facility, is estimated at \$401.7 \$408.9 million (1997 dollars). The base capital cost estimates assumes that:

- light rail uses the Fourth Street bridge in both directions;
- ~~hybrid low~~ high platforms are used for all surface stations;
- the ~~two-lane~~ mixed-flow design option is selected for the Third Street commercial core; and
- ballast mats and, if necessary, at certain locations along Third Street where vibration impacts would be more substantial, floating slabs are installed to mitigate the vibration impacts anticipated from operating the existing LRV fleet.

~~The cost estimate would be greater if any other options replaced those in the base case, including use of the Third and Fourth Street bridges, selection of the one-lane or mixed-flow design option in the Third Street commercial core, installation of floating slabs rather than ballast mats to mitigate vibration impacts, or additional features to the new LRV maintenance facility.~~

Construction of the New Central Subway, including the three additional LRVs and the same base case assumptions identified for the IOS, would require \$505.9 million (1997 dollars). The combined total capital cost estimate for the Light Rail Alternative is \$907.6 \$914.2 million.

The last paragraph of page 7-16 and Table 7-10 on page 7-17 are revised as well. MUNI and the San Francisco Transportation Authority are committed to address the identified shortfall of Proposition B revenues to fund the IOS (refer to Response 8-1).

TABLE 2-12

LIGHT RAIL ALTERNATIVE CAPITAL COST SUMMARY
(Revised August 26, 1998)

DESCRIPTION	INITIAL OPERATING SEGMENT		NEW CENTRAL SUBWAY	
	QTY	COST	QTY	COST
SYSTEM DATA		(\$000s)		(\$000s)
Route Length (Existing-New) - Route Meters	8973	0	3675	0
Track Length (New Only) - Track Meters	17386	0	5654	0
CONSTRUCTION COSTS				
Site - Demolition	960	223	0	0
- Utility Relocations/Modifications	8693	19482	3675	14694
- Street Restoration	8693	1839	3675	2088
- Traffic Signals	63	6300	7	700
- Structure Modifs and Underpinning	1	6317	2	3200
- Environmental Mitigations	5	1250	2	850
Trackway - At Grade (1 Track)	0	0	690	412
- At Grade (2 Track)	8193	8337	0	0
- Retained Cut/Fill	500	3160	0	0
- Ballast Mat (Vibration Control)	1	3414	0	0
Subway - Cut/Cover, Soil Cement Walls 1 Track	0	0	593	15190
- Cut/Cover, Soil Cement Walls 2 Tracks	0	0	1030	76903
- Mined Tunnel 1 Track	0	0	413	14828
- Mined Tunnel 2 Tracks	0	0	649	42125
Ventilation (Cut/Cover + Mined Tunnel)	0	0	2685	6100
Stations - At Grade	19	13815	1	400
- Underground	0	0	4	88497
Trackwork - Ballasted	16780	9547	690	392
- Direct Fixation	606	381	4964	3112
- Special, Turnouts, Turnback, Etc.	5	4048	1	640
Traction Power Supply	17386	17004	5654	5148
Signaling/Train Control	17386	8205	5654	8051
Communications/Fire/Life Safety	17386	4144	5654	2828
Urban Design/Landscaping/Park & Ride	1	7249	0	0
Art Commission Cost Allowance	17386	1912	5654	527
New LRV Maintenance Facility Yard & Shops - WP Site	1	49047	0	0
Light Rail Vehicles	26	<u>76,248</u>	3	9000
Subtotal CONSTRUCTION COSTS:		<u>\$243,674</u>		\$295,685
NON CONSTRUCTION COSTS				
Right-of-Way - Except New LRV Maintenance Facility	5	5381	0	0
Right-of-Way - New LRV Maintenance Facility	1	20500	0	0
Engineering & Management	0	<u>50,783</u>	0	77444
Subtotal NON-CONSTRUCTION COSTS		<u>\$76,664</u>		\$77,444
CONTINGENCY				
Contingency	0	<u>62,499</u>	0	95695
ESCALATION				
Escalation	0	0	0	0
PROJECT RESERVE				
Project Reserve	0	<u>26,112</u>	0	37056
Subtotal PROJECT RESERVE:		<u>\$26,112</u>		\$37056
TOTAL		<u>\$408,949</u>		\$505,880
Source: ICF Kaiser, <i>Conceptual Capital and Cost Estimates, Working Paper #5A</i> ; November 1997; Revised August 1998.				

The tables on the following pages identify the capital cost estimates for both the IOS and the New Central Subway. The IOS includes a new LRV maintenance facility and 25 additional light rail vehicles (Breda LRV3 Type, or equivalent). All capital cost estimates are provided in January 1997 dollars (i.e., FY 97 dollars). The capital cost estimate for the IOS is \$408.9 million; the capital cost estimate for the New Central Subway is \$505.9 million. The combined project is estimated to cost \$914.8 million in January 1997 dollars. The individual cost elements for both projects are shown in Tables 7-10 and 7-11.

TABLE 7-10

**CAPITAL COST ESTIMATES – THIRD STREET LRT IOS
(FY 97, \$ in millions)
(Revised August 26, 1998)**

Cost Element	Estimated Cost
<u>Third Street Light Rail Project</u>	
1. Surface Line and Stations (Design and Construction)	\$191.5 <u>194.9</u>
2. New LRV Maintenance Facility Operations and Maintenance Facility (Design and Construction)	81.2
3. Right-of-Way	
a. Line and Stations (Private Property)	4.7
b. New LRV Maintenance Facility (Port Property)	24.9 ⁽¹⁾
4. LRV Procurement - 15 <u>16</u> Vehicles (including ATCS, sales tax)	57.2 <u>61.0⁽¹⁾</u>
Subtotal-Third Street	362.5 <u>366.7</u>
<u>Mission Bay Service</u>	
5. Mission Bay LRV Procurement - 10 Vehicles	38.0 ⁽¹⁾
6. Mission Bay Turnback Facility	4.2
Subtotal-Mission Bay	42.2
TOTAL COST	\$401.7 <u>\$408.9</u>
Note:	⁽¹⁾ Includes right-of-way, contingency, engineering and management, and project reserve costs
Source:	ICF Kaiser Engineers

Additionally, the first and third paragraphs of S-10 in the Executive Summary are revised.

The total capital cost for the IOS, including the purchase of ~~25~~ 26 additional LRVs to accommodate 2015 demand and the construction of the initial phase for the new LRV maintenance and storage facility, is estimated at ~~\$401.7~~ \$408.9 million (1997 dollars). The base capital cost estimate assumes that:

Construction of the New Central Subway, including three additional LRVs and the same base case assumptions identified for the IOS, would require \$505.9 million (1997 dollars). The combined total capital cost estimate for the Light Rail Alternative is \$907.6 \$914.2 million.

E-10 VIBRATION IMPACT ANALYSIS

Results of the preliminary vibration impact assessment were refined by Harris, Miller, Miller & Hanson in September 1998, the first, second, third, fourth, and fifth paragraphs on page 5-88 of

the DEIS/DEIR, page S-22 of the Executive Summary, Tables 5-14 on page 5-89 are revised. Table 5-15 on page 5-89 is deleted.

The results of the vibration impact assessment are summarized in Table 5-14 for residential land uses and Table 5-15 for institutional land uses. As indicated in the tables, The preliminary analysis indicated a number of vibration impacts are projected for Segments 1, 2, 3, and 4. This reflects that the light rail tracks would be about 15 meters (50 feet) from the closest residences in these segments, and the impact distance is about 30 meters (100 feet). ~~Also shown in Tables 5-14 and 5-15 are the impact projections assuming mitigation.~~ Results of this preliminary analysis, which were refined by Harris, Miller, Miller, & Hanson, are presented in Table 5-14. The mitigation of ground-borne vibration is discussed in Section 5.13. 5.

Segment 1 - Caltrain Bayshore Station to the 101 Overcrossing

~~Vibration impact is projected for residences that front onto this segment. This includes a total of 43 residences, all of which are between Arleta and the overcrossing for 101 freeway. There are no institutional land uses that would be affected by vibration in this segment~~

No vibration effects are projected for any of the residences along this segment. Although there are a number of residences along Bayshore between San Bruno and the Highway 101 overcrossing, vibration propagation tests showed the soil in this area to have inefficient propagation characteristics, resulting in low vibration levels at these residences.

Segment 2 - Highway 101 Overcrossing to Thomas Avenue

~~Although much of Third Street in this segment is commercial land uses, there are also a number of single-family, multi-family and institutional land uses on Third Street. The projections are that ground-borne vibration would exceed the impact threshold at a total of 50 residences, church and one school. Four of the residences would be affected by vibration from a crossover. These impacts can be eliminated by moving the crossover one block south.~~

No vibration effects are projected along this segment due, in part, to the inefficient high-frequency propagation characteristics of the ground in this area.

Segment 3 - Thomas Avenue to Jerrold Avenue

~~The projections are that ground-borne vibration would exceed the impact threshold at residences and institutions distributed along this segment. Impacts are projected at a total of 21 residences, one church, and one library.~~

No vibration effects are projected at any of the residential or institutional land uses distributed along this segment. Vibration impacts are unlikely due to the inefficient high-frequency vibration propagation characteristics of the soils in this area.

Segment 4 - Jerrold Avenue to 16th Street

Ground-borne vibration impacts are projected for a total of seven residences in two mixed-residential/commercial buildings along this segment. The residences are located at the northern southern-end of the segment between Jerrold and Fairfax Avenue and in the middle of the segment between 22nd and 23rd 20th and 22nd Streets. The vibration impact is due to the special trackwork (crossover) located near these buildings.

TABLE 5-14

SUMMARY OF GROUND-BORNE VIBRATION AND NOISE IMPACT ASSESSMENT FOR RESIDENTIAL LAND USES
(Revised September 11, 1998)

Location	Closest Residence, ft	Speed, mph	Max. Impact Dist., ft		Number of Residential Impacts	
			No Mitigation	With Mitigation ⁽¹⁾	No Mitigation	With Mitigation ⁽¹⁾
Segment 1	50	5-30	4590	-50	043	0
Segment 2	-50	25-35	35100	-55	046	028
	45	-25	35170	-55	04	0
Segment 3	50	30-35	35100	-55	021	018
Segment 4	50	30-35	35100	4055	27	01
Segment 5	500	25-35	30100	--	0	0
Segment 6	<no noise sensitive receptors>					
Segment 7						
At-Grade Track	30	25	25 ^{(2)/2'}	--	0	0
Subway	30	15-45	20	-	0	047
Total Impacts					2121	0

Notes:

- (1) Ground-borne vibration mitigation is discussed in Section 5.13.5.
- (2) The residential buildings on this section of track are relatively large masonry construction with spread footings or pile foundations. The estimated impact distance is less in Segment 7 than farther south on Third Street because of the attenuation assumed to occur because of vibration coupling loss at the soil/foundation interface.

TABLE 5-15

SUMMARY OF VIBRATION IMPACT ASSESSMENT FOR INSTITUTIONAL LAND USES

Receiver	Location	Dist. to Near Track, ft	LRT Speed, mph	Projected Ground-Borne Vibration Levels, VdB re 1 µin/sec		Impact	
				No Mitigation	With Mitigation ⁽⁴⁾	No Mitigation	With Mitigation ⁽⁴⁾
Segment 1	<no vibration sensitive institutional land uses>						
Segment 2	<no vibration sensitive institutional land uses>						
Church/School	N of Key St, E of Third	50	35	80	74	Yes	No
Church	S of Paul Ave., W of Third	50	35	80	24	Yes	No
Church	N of Paul Ave., W of Third	110	35	71	64	No	No
Church	N of Armstrong, E of Third	140	25	72	65	No	No
Segment 3	<no vibration sensitive institutional land uses>						
Church	S of Revere, E of Third	100	35	71	64	No	No ^f
Church	S of Bay View, W of Third	45	35	72	66	No	No
Library	N of Revere, E of Third	40	35	80	74	Yes	No
School	S of Newcomb, E of Third	60	35	77	71	Yes	No
St. Johns Church	N of Jerrold, E of Third	40	30	79	72	Yes	No
Segment 4	<no vibration sensitive institutional land uses>						
School	N of Evans, E of Third	110	35	72	66	No	No
Segment 5	<no vibration sensitive institutional land uses>						
Segment 6	<no vibration sensitive institutional land uses>						
Segment 7	<no vibration sensitive institutional land uses>						
Notes:							
- ⁽⁴⁾ Ground borne vibration mitigation is discussed in Section 5.13.5.							

The bullet of key non-transportation impacts, which can be mitigated, on page S-22.

- vibration impacts to two residential/commercial buildings along Third Street between 20th and 22nd Streets; and

The mitigation measures on pages 5-97 and 5-94 as well as Table 5-17 are revised accordingly.

- vibration impacts to two residential/commercial buildings along Third Street between 20th and 22nd Streets; 78 residences, 2 churches, and 1 school resulting from operating the existing LRV fleet along Third Street; and
- *Modifying the transit vehicle suspension to reduce vibration forces.* Recent tests comparing ground-borne vibration from the new Breda vehicles and the older Boeing vehicles shows that the Breda vehicles generate significantly higher vibration levels in the 12 to 40 Hz frequency range. Modifying the Breda vehicle suspension system so that they no longer generate higher levels in this frequency range would result in about 3 to 5 decibel reduction of overall vibration levels. ~~Breda and MUNI are currently investigating design modifications to achieve this.~~ Vibration measurements of

modified Breda vehicles indicate that the reduction of 4 to 6 decibels within this frequency range can be achieved. Based on these results, it has been assumed for the impact assessment that the Breda vehicles will be modified such that vibration levels in the 12 to 40 range will be reduced by 2 to 5 decibels.

- *Installing a vibration control track system such as ballast mats.* The vibration attenuation provided by ballast mats is strongly dependent on the design of the mat and the frequency spectrum of the ground-borne vibration. Ballast mats can be very effective at frequencies greater than 40 Hz, however, at lower frequencies there is the potential the mat to cause a small amplification. The attenuation of ballast mats can exceed 10 decibels at frequencies above 50 Hz, however, the reduction in overall vibration velocity is usually closer to 5 decibels. Most at-grade ballast mats have been installed on concrete pads or inside concrete “tubs.” There is some controversy about whether the concrete pad or tub is necessary for a ballast mat to operate effectively. Some recent ballast mat installations have been directly on compacted subgrade. Should this prove to be effective, it would be a relatively cost-effective means to mitigate the vibration impacts.
- *Installing floating slab trackbed.* Floating slab trackbed basically consists of concrete slab track that is “floated” on rubber pads. There are several examples where floating slab tracks have been successfully used to control vibration from embedded track. They have the advantage of providing very predictable vibration control. The primary disadvantages are the substantial costs required costs after the system has been installed for several years.
- *Relocate crossovers and other special trackwork away from vibration sensitive receptors.* Wheel impacts at crossovers can substantially increase the levels of ground-borne vibration. When feasible, the impacts caused by the wheel impacts can be avoided by moving the special trackwork away from residential land uses to increase the distance between the track and receptors.

For this assessment, the ground-borne vibration impacts have been reassessed assuming a combination of modified vehicle suspension system and a vibration control track support system. ~~This approach is projected to reduce overall levels of ground borne vibration by about 7 VdB, which would be sufficient to substantially reduce the degree of vibration impact.~~ The locations where the projections indicate that vibration mitigation would be needed and the preliminary recommendations for mitigation are given in ~~Table 5-17~~ below. ~~The residual number of vibration impacts are listed in Table 5-14 for residential land use and Table 5-15 for institutional land use.~~

~~Although the projections indicate that even with mitigation there could still be a substantial amount of ground borne vibration, in almost all cases the projected ground borne vibration level with mitigation is only one or two decibels over the impact threshold. Specific vibration mitigation measures will be evaluated during the final design of the Third Street Light Rail Project when a more comprehensive study of ground borne vibration can be performed.~~

TABLE 5-17

SUMMARY OF VIBRATION MITIGATION MEASURES
(Revised September 10, 1998)

Area	Type of Mitigation	Extent	Residual Vibration
		Length, meters	
<u>Segment 1</u>			
<u>Bayshore, Visitation to Arleta</u>	<u>None required</u>		
<u>Segment 2</u>	<u>None required</u>		
<u>Segment 3</u>	<u>None required</u>		
<u>Segment 4</u>			
<u>20th to 22nd Streets</u>	<u>Ballast mat</u>	<u>60</u>	<u>0</u>
<u>Segment 5</u>	<u>None required</u>		
<u>Segment 6</u>	<u>None required</u>		
<u>Segment 7</u>	<u>None required</u>		
<u>TOTAL</u>	<u>Ballast mat</u>	<u>60</u>	<u>0</u>

The amount that the above mitigation measures would reduce overall levels of ground-borne vibration is dependent on the dominant frequencies of the vibration spectrum, which is dependent on the local geologic conditions. For example, in areas where there is artificial fill, undifferentiated sediments, or Bay mud, the vibration propagation tests showed considerably more efficient propagation at low frequencies (below 16 Hz) than at other sites. This is important when selecting mitigation measures since most measures that mitigate ground-borne vibration are relatively ineffective at frequencies below 20 to 30 Hz. However, since the projected vibration levels in the proposed alignment are dominated by high-frequency vibration, ballast mats will be an effective means of eliminating impact near any vibration-impacted receptors.

Following is a summary of each of the areas where mitigation is recommended:

Segment 1 - Caltrain Bayshore Station to the 101 Overcrossing

No mitigation is required along this segment.

Segment 2 - Highway 101 Overcrossing to Thomas Avenue

No mitigation is required along this segment.

Segment 3 - Thomas Avenue to Jerrold Avenue

No mitigation is required along this segment.

Segment 4 - Jerrold Avenue to 16th Street

Vibration mitigation is recommended along this segment between 20th street and 22nd Street. Vibration impacts are projected at two mixed-residential/commercial bgs due to a nearby crossover. Moving the crossover away from these receptors will be sufficient to reduce

ground-borne vibration levels below the impact threshold. If it is not feasible to move the crossover, a ballast mat is recommended for this area because the projections indicate that it would effectively reduce the high-frequency components of the vibration spectra.

TABLE 5-17

SUMMARY OF VIBRATION MITIGATION MEASURES

Segment	Mitigation	Location	Civil Station	
			Start	End
Segment 1	Ballast Mat	Hester to San Bruno	20+130	20+450
Segment 2	Ballast Mat	Meade to Egbert	18+920	19+650
	Move X-over	Yosemite/Armstrong	18+500	18+550
Segments 2 and 3	Ballast Mat	Armstrong to Innes	17+110	18+570
Segment 4	Ballast Mat	22nd Street to 23rd Street	15+100	15+250

Mitigation of the projected ground-borne vibration impacts would require the following vibration control track systems:

- a 320 meter section just south of the Highway 101 overcrossing;
- an approximately 730 meter section starting just north of the Highway 101 overcrossing;
- a section 1,640 meters long that includes the northern part of Segment 2 and almost all of Segment 3; and
- a short 150 meter section between 22nd and 23rd Streets.

In all, the preliminary projections indicate that a length of approximately 2,840 meters of vibration control track system would be required, all for track that would be embedded in Third Street. Additional construction mitigation may be necessary to ensure that noise and vibration is not significantly higher when Breda vehicles travel over the Third Street and Fourth Street bridges. New residential and hotel construction is planned near these bridges.

A rough cost estimate is that the materials and installation cost for this length of ballast mat would be approximately \$3.2 million. This cost estimate is based on a six meter wide mat and a materials and installation cost of \$215 per square meter. This cost does not include the additional cost of a concrete slab or tub, which, as discussed above, may not be necessary.

Traffic Noise

Although the light rail line would have a substantial effect on traffic patterns and volumes in the Third Street Corridor, none of the projected increases in traffic are sufficient to cause more than a one decibel change in noise exposure. This is an insignificant change in noise exposure and no noise impacts are projected.

E-11 Substation Locations

More precise locations for substation at the Caltrain Bayshore Station and at the Highway 101 overcrossing have been identified. Additionally, in response to community concerns, the proposed substation location in Mission Bay has been changed to 16th Street immediately west of Terry Francois Boulevard. The first paragraph of page 2-45 and Figure 2-18 on page 2-46 are revised accordingly.

For the IOS, seven substations, including an existing MUNI substation at Second and Berry Streets, would supply power to the light rail line. MUNI would construct six new substations on vacant land at or near the following locations (Figure 2-18):

- Mission Bay (~~east of Illinois Street at intersection of~~ on 16th Street immediately west of Terry Francois Boulevard);
- Western Pacific ~~or Cargo Way~~ new LRV maintenance facility site (2);
- Third/Hudson (east side of Third Street); or, alternatively, at the City's Southeast Sewage Treatment Plant, which would preclude purchase of private property. West of Third/Keith at the Highway 101 Overcrossing; and
- 30 meters (100 feet) east of the southeast corner of Bayshore/Sunnydale, which would preclude purchase of private property.

Table 5-1 is revised accordingly.

TABLE 5-1			
ACQUISITION AND RELOCATION REQUIREMENTS			
LOCATION	REASON FOR ACQUISITION/SEGMENT	ACQUISITION	RELOCATION
Keith St. near Key Avenue	Traction power substation (IOS)	vacant public right-of-way	No
Newhall St. at Hudson Avenue (possibly)	Traction power substation (IOS)	vacant private parcel	No
<u>16th Street near Terry Francois Boulevard</u> Third St. near Mariposa St.	Traction power substation (IOS)	vacant private parcel	No

E-12 Project Development Process

Further explanation of the Third Street Light Rail Project phasing has been included at the end of Section 2.1.1 on page 2-2.

Preliminary engineering of the IOS phase of Third Street Light Rail Project supports the evaluation of its impacts and alternatives in this EIS/EIR, but preliminary engineering of the New Central Subway phase of the Project has not yet been conducted. Though related, these two phases are distinct, subject to separate advancement decisions on separate schedules. This EIS/EIR presents, in addition to the detailed information about the Third Street Light Rail Project, planning-level information with less engineering detail about the impacts and alternatives of the New Central Subway phase of the Project. This full disclosure of future plans is in accordance with the guidance of the Council on Environmental Quality, which encourages the consideration of reasonably foreseeable related projects and

cumulative impacts. The Third Street Light Rail Project being advanced at this time is shown to have independent transportation utility, so it does not depend on future decisions about the New Central Subway. When the New Central Subway phase of the Project is advanced, if FTA funding is sought, the environmental record will be reviewed for currency and adequacy and supplemented if necessary and appropriate.

E-13 Reclassification of the Bay Area Air Quality Status

The US Environmental Protection Agency has reclassified the Bay Area's attainment status for carbon monoxide and ozone. The text on page 4-89 is revised accordingly.

The Bay Area is designated as a national attainment/maintenance area for federal CO standards. A Redesignation Request and Maintenance Plan for the national CO standard was submitted to US EPA in 1993.¹ The US EPA has reclassified the Bay Area from national attainment to nonattainment based on recent violations of the national ozone standard at several locations in the air basin.

E-14 Project-Related Health and Safety Risks for Children

Executive Order 13045 requires federal agencies to evaluate any project on related health and safety risks that would disproportionately affect children. The following text is added to Section 5.3.2 on page 5-14.

Another Executive Order—E.O. 13045, signed on April 21, 1997—require federal agencies to evaluate, and address if necessary, any project-related environmental health and safety risks that would disproportionately affect children. In this document, the sections on Hazardous Materials and Transportation address environmental health and safety risks associated with the Third Street Light Rail alternatives. There is no basis to conclude that such impacts would disproportionately affect children. Hazardous materials in the project right-of-way are more likely to affect construction workers than children, and the project alternatives would be constructed within existing transportation rights-of-way or underground.

E-15 Draft Programmatic Agreement with the State Office of Historic Preservation

A Programmatic Agreement that identifies the steps to be under taken in constructing the New Central Subway to mitigation the potential effects on archaeological resources has been drafted and included the document. The text has been added to Section 5.5.3 on page 5-31. The Draft Programmatic Agreement is presented in Appendix F.

A draft Programmatic Agreement that identifies the steps to be taken in constructing the New Central Subway to mitigate the potential effects on archaeological resources is presented in Appendix F. The Programmatic Agreement between MUNI, FTA, SHPO, and the Advisory Council on Historic Preservation is currently being finalized.

¹ BAAQMD CEQA Guidelines, April, 1996.

Edwin M. Lee | Mayor
Tom Nolan | Chairman
Cheryl Brinkman | Vice-Chairman
Leona Bridges | Director
Malcolm Heinicke | Director
Jerry Lee | Director
Joel Ramos | Director
Cristina Rubke | Director
Edward D. Reiskin | Director of Transportation

MEMORANDUM

TO: Monica Pereira
FROM: Rana Ahmadi
SUBJECT: Environmental Review for the Mission Bay Loop Project
DATE: October 3, 2012

The Mission Bay Loop Project "the Loop" is a short-turn loop from the Muni T Third light rail line (T Third) to the east of Third Street. The Loop is intended to provide more frequent transit service to the Mission Bay area. The Loop would provide turnaround capabilities for the T Third through a connection from Third Street to 18th, Illinois, and 19th streets.

The current T Third runs at 10-minute interval on weekdays between 8:00 AM and 5:00 PM. Between 5:00-8:00 PM the T Third runs every nine minutes. Between 8:00 PM and 12:00 midnight the T Third runs every 15 minutes. On the weekend T Third runs every 12 minutes from 8:00 AM to 2:00 PM and every 20 minutes between 2:00 PM and midnight. The Loop would not affect the frequency of the service for the entire stretch of the T Third from the Caltrain Station at 4th and King streets to the Sunnysdale Station in the south. The Loop would however double the frequency of T Third from this point to the north.

The Loop was designed to respond to the increased ridership demand of the Mission Bay development area. The Loop was reviewed and analyzed in the Environmental Impact Report and Environmental Impact Statement (EIR/EIS) for the Third Street Light Rail Project Phase 1. The EIR was certified in 1999 and the Record of Decision (ROD) for this project was issued in 1999.

Page 2-27 of the EIR/EIS describes the Loop under the built alternative. Figure 2 on page 2-17 of the EIR/EIS shows the Loop as the "Light Rail Short Turn".

Since the certification of the EIR, the turnouts from Third Street have been built. The turnouts extend over two-thirds of the block on 18th and 19th streets towards Illinois Street. The turnouts were built in 2003 and the testing was completed in 2006. The design for the remainder of the Loop was not completed due to lack of funding.



The remainder of the Loop to be constructed would consist of installation of two one-third-blocks and one full block of tracks on the street right-of-way for a maximum length of 900 feet. The tracks on Illinois Street between 18th and 19th streets would provide an area for 2-two car trains to layover.

The Loop's environmental impacts were analyzed and cleared under the Third Street Light Rail Project Phase 1 EIR. There have been no changes to the Loop design since the EIR certification. A large segment of the Loop has been built and the remainder of the tracks to be built is a short distance of 900 feet.

There have been two new housing developments on 18th Street since the EIR certification. The housing development to the south of 18th Street between Third and Illinois streets, was completed in 2002 prior to the completion of the turnouts. The housing development to the north of 18th Street between Third Street and Illinois streets was completed in 2008. No other new developments in the Loop area have occurred since the EIR certification. There have been several new housing developments along Third Street and the near vicinity since the completion of the Third Street Light Rail Project. The new residential and commercial developments were assumed to occur in the area as part of the background growth in the EIR analysis. The current transit oriented residential zoning permits and encourages housing development in this area. The T Third transit service is expected to serve the growing number of people living in these types of developments.

SFMTA seeks your concurrence that the project does not meet any of the requirements listed under Section 15162 (a)-(d) for the preparation of a Subsequent EIR, Section 15163 (a)-(e) for the preparation of a Supplement to an EIR, and Section 15164 (a)-(e), for an Addendum to an EIR, under the State CEQA Guidelines and that no further environmental review for the Loop would be necessary.

The Project was evaluated in the Third Street Light Rail Project Final Environment Impact Report (FEIR), certified by the San Francisco Planning Commission on December 3rd, 1998. No further assessment is required

Laura C. Lynch 10/12/12
San Francisco Planning Dept.
Environmental Planning



ENVIRONMENTAL ASSESSMENT FOR

MISSION BAY TRANSIT LOOP PROJECT SAN FRANCISCO, CALIFORNIA



May 6, 2013

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ENVIRONMENTAL ASSESSMENT

for

**Mission Bay Transit Loop Project
San Francisco, California**

prepared pursuant to

National Environmental Policy Act

Title 42, United States Code, §4332(2)(c)

Title 23, Code of Federal Regulations, Part 771

by

United States Department of Transportation

Federal Transit Administration

201 Mission Street, Room 2210

San Francisco, California 94105

SFMTA | Municipal Transportation Agency

One South Van Ness Ave, 7th Floor

San Francisco, California 94103

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ACRONYMS

- ADA Americans with Disabilities Act
- APE Area of Potential Effects
- BAAQMD Bay Area Air Quality Management District
- CEQA California Environmental Quality Act
- CFR Code of Federal Regulations
- DOT United States Department of Transportation
- EA Environmental Assessment
- EIR Environmental Impact Report
- EIS Environmental Impact Statement
- FTA Federal Transit Administration
- LOS level of service
- NEPA National Environmental Policy Act
- NHPA National Historic Preservation Act
- NRHP National Register of Historic Places
- SFMTA San Francisco Municipal Transit Authority
- TIGER Transportation Investment Generating Economic Recovery

1. INTRODUCTION AND BACKGROUND

This Environmental Assessment (EA) for the Mission Bay Transit Loop (Mission Bay Loop or the Loop) portion of the Third Street Light Rail Project has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 codified in Title 40 of the Code of Federal Regulations (CFR), Chapter V, Parts 1500–1508, Council on Environmental Quality. An *Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the Third Street Light Rail Project* was completed and approved in 1999 by the Federal Transit Administration (FTA) and the City and County of San Francisco and construction of the light rail project was completed in 2003. Due to budget constraints, a portion of the Third Street Light Rail Project, the Mission Bay Loop, was not completed. The construction of the Loop was deferred, as the bulk of the increased service the Loop was intended to accommodate is not needed until the beginning of the operation of the Central Subway planned for 2019. Because approximately 12 years have passed since the *EIS/EIR for Third Street Light Rail Project* was completed, the San Francisco Municipal Transit Authority (SFMTA) has prepared this EA to identify and evaluate any conditions that might have changed after 1999 that could potentially result in adverse effects from construction of the Mission Bay Loop.

The FTA is the federal lead agency pursuant to NEPA and SFMTA is the project sponsor.

1.1 Purpose and Need

The SFMTA, in cooperation with the FTA, propose to construct the Mission Bay Loop in the Central Waterfront area of the City and County of San Francisco, on city roads and right-of-ways on the block of Eighteenth, Illinois, and Nineteenth Streets. Figure 1-1 depicts the location of the proposed Loop and the surrounding area.

The Loop is a proposed component of the Third Street Light Rail Project, which connects the City's growing southeastern neighborhoods with the Financial District and Chinatown, and was designed to support the increasing public transit needs for these areas.

Between 1990 and 1996 approximately 45 percent of new housing built in San Francisco was in areas adjacent to the Third Street Light Rail corridor. It is estimated that by 2025, the population in the Central Waterfront area will increase from the 2000 population of 1,704 residents to approximately 8,500 residents (City and County of SF, 2007). Approximately 65 percent of the City's job growth and over 50 percent of the residential growth are projected to be located along the T-Third Street line corridor (City of South SF, 2009). Given San Francisco's small size and built-out character, the eastern portion of the city, including Mission Bay and Central Waterfront, represents the largest area of developable land.

To support the growth projected for this area, the long-range public transit plan for Third Street Light Rail corridor consists of two phases: Phase 1, development of the T-Third Street line

(completed in 2003, except for the Loop); and Phase 2, construction of the Central Subway allowing for the addition of 24 new trains to the system, and the implementation of short- and long-line service on the T-Third Street service line (SFMTA, 2011).

The SFMTA began service on the T-Third Street line between Embarcadero and Sunnydale in 2007 (Figure 1-2). The line is a 5.1-mile surface route serving Caltrain, AT&T Park, Mission Bay, the UCSF campus, the Central Waterfront, and the residential areas of Bayview-Hunters Point, Visitacion Valley, and Little Hollywood. Phase 2 will extend the T-Third Street line by a 1.7-mile surface-and-subway route to the new Central Subway that will include four new stations:

- Chinatown: subway station and terminus;
- Union Square-Market Street: subway station with connection to the Powell Street Muni-BART station;
- Moscone: subway station serving the convention center and Yerba Buena museum district; and
- Fourth and Brannan: surface station serving SOMA.

After completion of Phase 2, short-line service would extend from Chinatown to Mission Bay with trains returning northbound on Third Street via the Loop. The long-line trains would travel from Chinatown to the southern terminus of the T-Third Street line in Sunnydale.

The Mission Bay Loop is key to efficient integration of the T-Third Street line with service on the Central Subway. Population growth in Mission Bay and the Central Waterfront is anticipated to create northbound transit demand from these neighborhoods to access jobs and services downtown and in other northern parts of the city. Ridership on the T-Third Street segment in Mission Bay and the Central Waterfront neighborhoods is also anticipated to increase with rising need to access new high-density retail, and commercial establishments in these neighborhoods. The Loop is needed to accommodate more frequent transit service from the Mission Bay and Central Waterfront back to downtown (Figure 1-2), as originally intended in the design of the Third Street Light Rail Project in 1999. It is estimated that the additional trains and service options available in 2019 would increase service to and from the Mission Bay area by approximately 50 percent over current service levels.

The location of the Loop between Eighteenth and Nineteenth Streets would allow for increased service in the most heavily traveled portions of the Central Subway Corridor with the most efficient and effective route that serves the majority of present and future ridership concentrated between the Central Subway stations and the Mission Bay area. The Loop at this location would also provide the SFMTA with an ability to remove disabled trains from this portion of the T-Third Street line, thereby minimizing effects on system service levels.

Beginning in 2016 (prior to its integration with the Central Subway in 2019), the Mission Bay Loop would allow trains to turn around for special events (e.g., baseball games, concerts, street fairs) and during peak periods to meet the projected service needs between Mission Bay and the Market Street Muni Metro corridor. If resources permit, the N-Judah line would to be extended to the Mission Bay Loop from its current terminus at Caltrain to provide this service.

1.2 Project Location

The location of the proposed Loop is within the area of San Francisco known as the Central Waterfront, just east of Potrero Hill and south of SOMA (Figure 1-2). The project site lies immediately adjacent to Pier 70 at the Port of San Francisco.

1.3 Roles and Responsibilities

The following public agency roles and responsibilities for the proposed project were established via an agreement between SFMTA and FTA for the allocation of Transportation Investment Generating Economic Recovery (TIGER) funds by the United States Department of Transportation's (DOT) for the Mission Bay Loop project:

- The FTA is the lead agency as defined by NEPA;
- The SFMTA is the project sponsor and is responsible for completion of the preliminary conceptual design, design engineering, construction and operation of the Loop. As the project sponsor, SFMTA is responsible for providing guidance to the City and County of San Francisco and FTA regarding funding requirements; and
- The SFMTA is responsible for leading the completion of the environmental studies, project design; would be responsible for project management and oversight.

1.4 Project Funding

The project would be funded by a discretionary grant under the TIGER program and funds from the Lifeline Transportation Program, administered by the Metropolitan Transportation Commission to support projects that address mobility and accessibility needs in low-income communities in the Bay Area. Funds from the Lifeline Transportation Program are appropriate for the proposed project since its implementation would support improved transit service to low-income communities south of Mission Bay.

The estimated cost of the Loop is \$6,257,000, including environmental assessment, design, and construction.

1.5 Environmental Review

In accordance with California Environmental Quality Act (CEQA) Guidelines (Title 14 of the California Code of Regulations §15000 et. seq.) and NEPA (40, CFR, Part 1500 et. seq.), an EIR/EIS was prepared for the Third Street Light Rail Project that included the proposed action (FTA, 1998b).

1.5.1 CEQA

The *EIR/EIS process for the Third Street Light Rail Project* was initiated in 1996 with the Notice of Preparation distributed on October 18, 1996 (California State Clearinghouse Number 96102097) and amended on June 27, 1997. Public scoping meetings and workshops were conducted in 1997, including workshops in the Visitacion Valley, Little Hollywood, Bayview, Hunters Point, Potrero Hill, South of Market, Chinatown, and Downtown neighborhoods. A total of 300 people attended the workshops. The SFMTA established a community advisory group early in the planning and design phase of the project to receive input on design options and to select specific design options for evaluation in the environmental review. As a result of the public input, SFMTA modified early design options and added new ones to ensure that the project fully reflected the community's desires (FTA, 1998a).

The *Draft EIS/EIR for the Third Street Light Rail Project* was available for public review in early 1998. Incorporating changes to address comments received during the public review period, a *Final EIS/EIR for the Third Street Light Rail Project* was prepared and certified by the City of San Francisco Planning Department on November 6, 1998 (FTA, 1998b).

In October 2012, San Francisco Planning Department reviewed the proposed Loop project in light of the prior CEQA analysis and determined that no further assessment is required (Ahmadi, 2012).

1.5.2 NEPA Process

In accordance with NEPA, the FTA must determine if the proposed action would have adverse effects on area resources. NEPA is a nationwide mandate for the protection of the environment and applies to all federally funded projects and projects that require permits or approvals from a federal agency. The purpose of NEPA is to provide public disclosure of the environmental effects associated with federal actions and to ensure that the programs of the federal government promote improvement of the quality of the environment. The process required under NEPA enables public officials to make decisions that are based on an objective understanding of environmental consequences, and take actions that protect, restore, and enhance the environment. The process also insures that environmental information is available to public officials and citizens before decisions are made and before actions are taken.

While the proposed action was evaluated in the *EIS/EIR for the Third Street Light Rail Project* and the FTA issued a Record of Decision in 1999, the FTA determined that sufficient time had lapsed since this evaluation to require review of the proposed action for any potential new effects on resources in the Mission Bay area.

Based on informal scoping activities, a review of planning and environmental studies associated with adjacent infrastructure projects, and known changes in the project location, the FTA determined the following areas of interest warrant additional review:

- Aesthetics
- Air quality

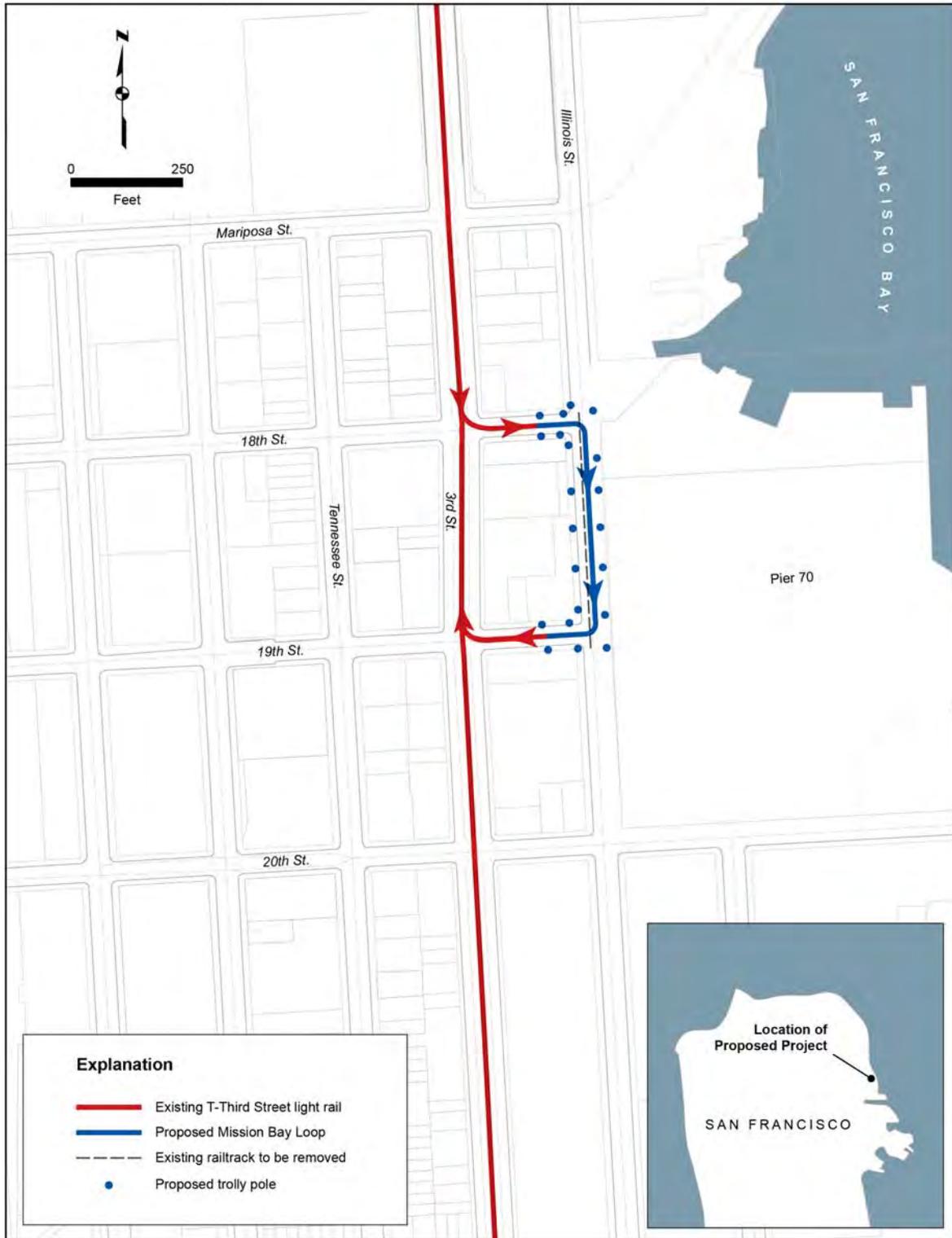
- Climate change
- Environmental justice
- Historic and archeological preservation
- Land use
- Noise and vibration
- Parks and recreation areas
- Transportation
- Cumulative effects

This EA evaluates the potential effects of the proposed action and alternatives on the physical, biological, and human resources in the area. If significant adverse effects were identified in the EA that cannot be reduced through mitigation measures, a detailed environmental impact statement would be required. If the FTA decides that there are no significant adverse effects, it would make a finding of no significant impact.

1.6 Required Permits and Approvals

The following approvals are required for the proposed project:

- City and County of San Francisco Public Works Department – approval of construction in streets and changes to sewers;
- City and County of San Francisco Department of Public Health – review of project for compliance with Maher Ordinance (Article 22A of the San Francisco Public Health Code);
- California Public Utilities Commission – permits for pedestrian crossings of light rail tracks; and
- Metropolitan Transportation Commission – funding approval.



Source: Project detail from SFMTA.

Figure 1-1. Location and features of the proposed Mission Bay Loop



Source: SFMTA (Existing rail line in red. Proposed service to and from the Loop shown in blue.)

Figure 1-2. T-Third Street Light Rail Line

2. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

The proposed action and the no action alternative were evaluated and the evaluation is presented in this section.

2.1 Proposed Action

The Mission Bay Transit Loop was part of the original design for the Third Street Light Rail Project that resulted in the construction of transit facilities along the Third Street corridor extending from Third and King Streets to the north, to the Caltrain Bayshore Station near Bayshore Boulevard to the south. As discussed in Section 1, the Loop portion of the project was not completed due to budget constraints and the fact that the Loop's critical service enhancements would not be needed until the beginning of the operation of the Central Subway.

The Loop was designed to provide turn-around capabilities for the T-Third Street light rail line via a connection of trackway from Third Street to Eighteenth, Illinois, and Nineteenth Streets (Figure 1-1) to facilitate a 50 percent increase in frequency of transit service in the Chinatown, Mission Bay, and SOMA neighborhoods. The increase in service would be achieved by allowing up to half of the trains traveling on Third Street via the Central Subway during peak hours to turn around at the Mission Bay Loop and proceed back toward downtown San Francisco to Stockton and Washington Streets.

Twenty-four additional trains will be added as part of the Central Subway project currently being constructed to augment levels of transit service along the Third Street corridor to Chinatown and to the Hunters Point neighborhood (south of the Loop).

Transit service for residents of the Third Street corridor south of Mission Bay would be enhanced because diversion of trains at the Loop would allow for the addition of service to Sunnysdale (after the opening of the Central Subway) in 2019; decreasing the current 9-minute headways (distance in time between trains) to 7.5 minutes. North of the Loop, a decrease from 9-minute to 4-minute headways is indicated in the Central Subway Service Plan.

Design of the Loop and preparation of a construction bid package is anticipated to take nine months. Construction of the Loop project would take approximately four to five months, including removal of existing trackway along Illinois Street and installation of supporting power facilities.

Specific features of the proposed action are described in detail below.

2.1.1 Trackway

In 2007, portions of trackway were installed on approximately two-thirds of the block of Eighteenth and Nineteenth Streets between Third and Illinois Streets. These trackways would be

extended a distance of 60 feet to Illinois Street to complete the Loop (Figure 1-1). The direct fixation trackway would be 16 inches thick and would require excavation of approximately 18 inches below grade. Included in the trackway would be track drains connected to the existing combined sewer and storm system.

New trackway would be installed on one full block of Illinois Street (between Eighteenth and Nineteenth Streets). A maximum of 900 feet of single-track trackway would be installed in the street right-of-way on Eighteenth, Nineteenth, and Illinois Streets.

The centerline of the trackway would be located in the center of the 66-foot right-of-way of Eighteenth and Nineteenth Streets. Presently, the right-of-way includes 12-foot sidewalks and parking on both sides of each street, along with two lanes going east and west. The trains on the trackway would make a right turn from eastbound Eighteenth Street to southbound on Illinois Street.

The right-of-way on Illinois Street is 80 feet with a 15-foot sidewalk on the west side and a fence along what would be the curb line of a planned 15-foot sidewalk on the east side to be installed by Port of San Francisco as part of the Pier 70 redevelopment (Port of SF, 2010) that includes the development of Crane Cove Park east of Illinois Street between Mariposa and Nineteenth Streets along the Bay shoreline (Port of SF, 2012) to be completed at a later date. Presently, there is no sidewalk on the east side of Illinois Street due to a difference in elevation between the street and the adjoining eastern parcel of Pier 70.

The centerline of the trackway on Illinois Street would be located 37.5 feet from the western property line. Illinois Street currently has one lane of traffic in the northern and southern directions and parallel parking on the east side. Configuration of the trackway from west to east would include a 15-foot sidewalk, a 17-foot traffic lane (with the existing six-foot bike lane), an 11-foot trackway right-of-way, a 16-foot traffic lane, and 15-foot sidewalk to be constructed by the Port of San Francisco.

To avoid reduction in roadway capacity while trains are making their way onto Illinois Street from Eighteenth Street or onto Third Street from Nineteenth Street, the SFMTA would implement one of the three design options listed below after consideration of public comments. Figure 2-1 provides a diagram representing these lane configuration options.

Design Option 1: To ensure clear right-of-way for light rail vehicles to use Eighteenth and Nineteenth Streets, vehicular access would be controlled by signalization at the four intersections surrounding the Loop: Third and Eighteenth Streets; Illinois and Eighteenth Streets; Illinois and Nineteenth Streets; and Third and Nineteenth Streets. Vehicles would be stopped at Third and Illinois Streets until trains have left Eighteenth or Nineteenth Streets; after which time, vehicular traffic would resume use of Eighteenth or Nineteenth Streets. Flashing light signals would be installed by the exit from each driveway and on the street to warn vehicles to wait until the train clears before entering the street and to then proceed with caution.

Design Option 2: Vehicles and trains would be allowed to travel in the same direction in mixed traffic. To provide sufficient width for vehicle and train traffic, parking would be limited to the south side of Eighteenth Street and the north side of Nineteenth Street. “No Parking” and “No

Stopping, 7 a.m. to 6 p.m.” signs would need to be installed along the north side of Eighteenth and the south side of Nineteenth Streets.

Design Option 3: Eighteenth and Nineteenth Streets would be converted into one-way couplets. Vehicles access would be controlled until trains have left Eighteenth or Nineteenth Streets, with vehicles traveling on Eighteenth Street in the eastbound direction only, and vehicle travel on Nineteenth Street in the westbound direction only. Installation of flashing light signals by the exit from each driveway and on the street would warn vehicles to wait before entering the street until the train clears and to then proceed with caution.

2.1.2 Overhead Contact (Power) System

To provide electric power to the trains, 17 trolley poles would be installed; streetlights would be affixed to eight of these poles. There would be two poles on each side of Eighteenth Street, two poles on each side of Nineteenth Street, seven poles on the west side of Illinois Street, and six poles on the east side of Illinois Street (Figure 1-1). All proposed poles would be installed 18 inches from the curb edge. Six bulb-outs would be installed to accommodate the poles on the east side of Illinois Street, in case the planned sidewalk installation is not completed prior to construction of the Loop. The bulb-outs would extend into Illinois Street approximately 18 inches in order to provide the necessary positioning required for power connection.

Poles would measure between 10 and 12 inches in diameter and have three-foot diameter caisson foundations at a maximum depth of 10 feet. The streetlights would be standard “cobra-head” streetlight fixtures.

2.1.3 Signalization

Traffic, pedestrian, and train signals would be installed at the intersections of Eighteenth and Illinois Streets and Nineteenth and Illinois Streets. The train signals would allow trains to safely make the right turn from Eighteenth Street to Illinois Street and from Illinois Street to Nineteenth Street. The train signals would be activated by the train operator and would require vehicular traffic to wait at the red signal.

2.1.4 Curb Ramps/Sidewalk

A curb ramp compliant with the requirements of the Americans with Disabilities Act (ADA) would be installed at the northwest corner of intersection of Nineteenth and Illinois Streets. Existing ADA-compliant curb ramps are at the intersection of Nineteenth and Illinois Streets and at the southwest corner of Nineteenth and Illinois Streets intersection. Approximately 228 feet of concrete sidewalk would be installed: 128 feet on the west side of Illinois Street, and 100 feet on the north side of Nineteenth Street.

2.1.5 Street Resurfacing

Approximately 60 feet of Eighteenth Street, 60 feet of Nineteenth Street, and 500 feet of Illinois Street would be resurfaced after the tracks are installed.

2.1.6 Removal of Abandoned Freight Trackway

In order to install new trackway along Illinois Street, a 534-foot portion of the abandoned freight rail tracks owned by the Union Pacific Railroad, from approximately 25 feet north of the intersection of Eighteenth and Illinois Streets to approximately 25 feet south of the intersection at Nineteenth and Illinois Streets, would be removed (Figure 1-1).

2.1.7 Utility Relocation

Sewer manholes serviced by the San Francisco Public Utilities Commission currently located at the intersections of Eighteenth and Illinois Streets and Nineteenth and Illinois Streets would be relocated to outside of the proposed trackway right-of-way.

2.1.8 Provision for Passenger Platform

While not part of the proposed action, a passenger platform could be constructed at Illinois Street pending sufficient right-of-way clearance, operational support, additional funding, and community benefit.

The proposed trackway would be located sufficiently to the center of Illinois Street so that an eight-foot-wide and 138-foot-long concrete platform with a ramp and landing could be built on the west side of the trackway. The landing of the platform would be set back from the intersection of Nineteenth and Illinois Streets by approximately 35 feet and its 138-foot length would extend northward along Illinois Street. Construction of the platform would require that the sidewalk along Illinois Street be cut back from the existing 15-foot width to the legislated 10-foot width.

2.1.9 Operation

Beginning in 2016, the Mission Bay Loop would provide a means to turn trains for special events and during peak periods to accommodate additional service needed between Mission Bay and the Market Street Muni Metro (Figure 1-2). To provide this service, the N-Judah line could be extended to the Mission Bay Loop from its current terminus at Caltrain. Beginning in 2019, the integration of the T-Third Street rail line with the Central Subway would establish a continuous 6.8-mile service route between Chinatown and Sunnysdale. Concurrently in 2019, the service on the T-Third Street light rail line would include a 2.9-mile route between Chinatown and the Mission Bay Loop to complement the service to Sunnysdale. The combined service frequency of the line to Sunnysdale and the line to the Mission Bay Loop would result in trains arriving and departing at Chinatown station every three minutes 45 seconds.

2.2 Alternatives Considered for Detailed Study

2.2.1 *Alternative 1: No Action Alternative*

The no action alternative assumes that the proposed action project is not constructed and existing service level along the T-Third Street light rail line remains unchanged. The no action alternative would not increase the frequency of transit service in the Chinatown, Mission Bay, and SOMA neighborhoods and would not accommodate projected growth in transit ridership and demand for access to the downtown from Mission Bay.

2.3 Alternatives Considered but Rejected

Alternatives, including increased Transportation System Management, a Sixteenth Street-I-280-King Street alignment through Mission Bay, a Central Subway alignment via Kearny Street, and a downtown surface route via Market or Washington Streets, were analyzed in *EIS/EIR for the Third Street Light Rail Project*. Additionally, alternate Loop locations were evaluated in the planning process for the T-Third Street rail line. These locations are listed in Table 2-1, along with reasons for their unsuitability. Photographs of these locations are provided in Appendix A.

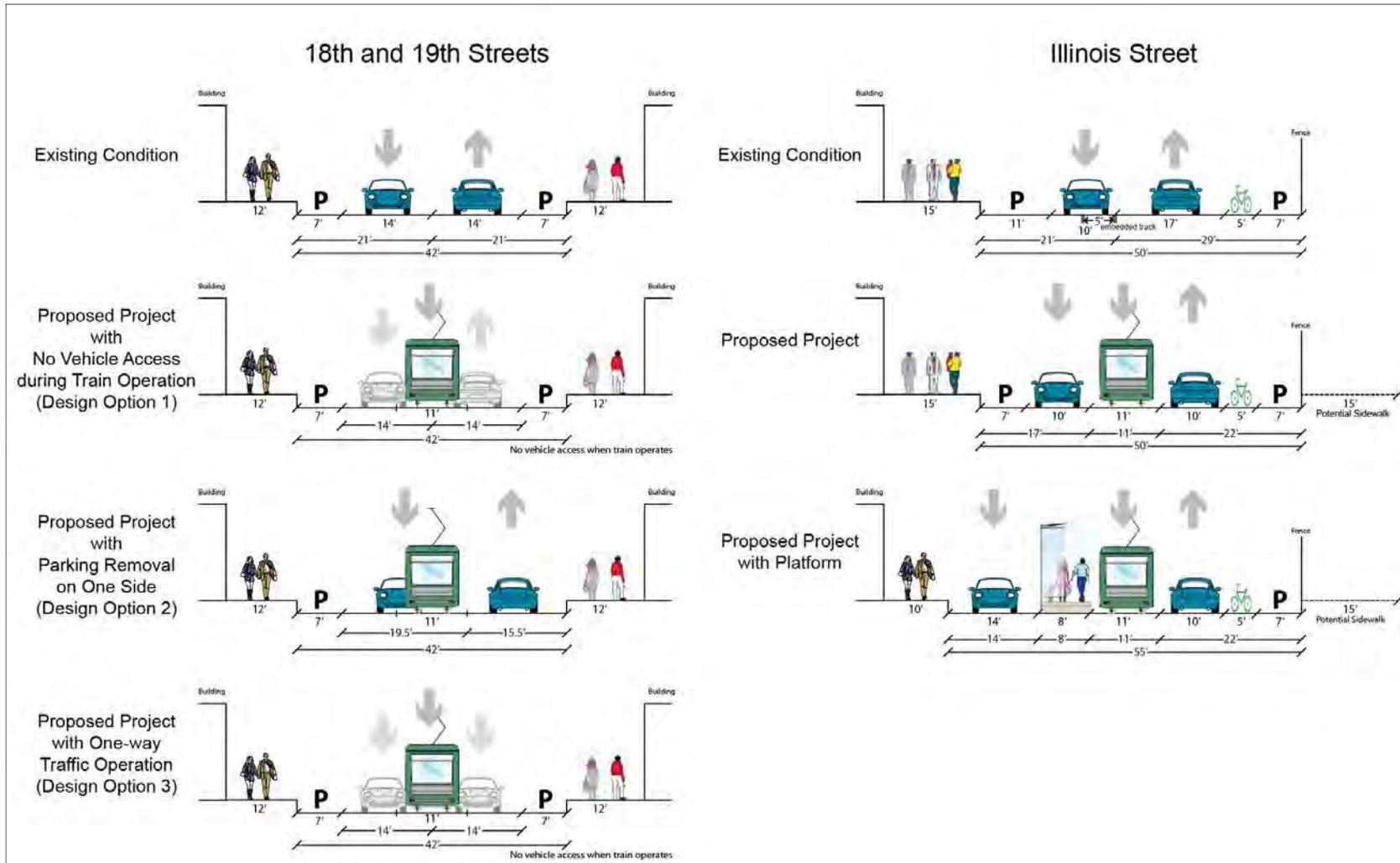
During outreach conducted by the SFMTA in February 2013, residents of the Dogpatch area suggested an alternative location for the Loop. The suggested location was the Muni Metro East facility located about a mile south of the proposed Loop, on Illinois and 25th Streets, a block from the T-Third Light Rail Line. The Muni Metro East facility does not currently have the infrastructure for a revenue service turnaround. Using the Muni Metro East facility for this purpose would increase travel time on the T-Third Street rail line to Sunnydale by approximately 20 minutes, increase capital costs by roughly \$30 million, and increase annual operation and maintenance costs by an estimated \$3.7 million. Furthermore, constructing a train turnaround at the facility would limit SFMTA's ability to store trains and utilize the needed maintenance flexibility of the yard. Given these challenges, this option was not evaluated in this EA.

Table 2-1. Alternative loop locations considered and reason for their rejection

Alternate Location	Between Streets		Reason for rejection of alternative
Third Street	Mariposa Street	(Intersection)	At this location conflict with future boarding platform on Mariposa Street would occur. Vehicular impact would also be caused by I-280 access ramp.
Mariposa Street	Third Street	Tennessee Street	Vehicular impact would be caused by I-280 access ramp.
Tennessee Street	Mariposa Street	Eighteenth Street	Conflict with existing 90-degree parking would occur. Loop requires travel on Mariposa Street. Vehicular impact would be caused by I-280 access ramp.
Eighteenth Street	Third Street	Tennessee Street	This location has a slope in excess of the nine percent, which the Breda vehicles cannot climb.
Eighteenth Street	Tennessee Street	Indiana Street	At this location, layover would conflict with traffic overpass to Potrero Hill and highway on-ramp. The street is on a slope.
Tennessee Street	Eighteenth Street	Nineteenth Street	This location would require a steep descent down Nineteenth Street.
Nineteenth Street	Third Street	Tennessee Street	This location has a slope in excess of the nine percent slope, which the Breda vehicles cannot climb. A conflict with driveways would occur at this location.
Twentieth Street	Third Street	(Intersection)	A conflict with future boarding platform north of Twentieth Street would occur at this location.
Twentieth Street	Third Street	Tennessee Street	At this location, layover would conflict with traffic overpass to Potrero Hill. Street is on slope.
Tennessee Street	Twentieth Street	Nineteenth Street	This location would require a steep descent down Nineteenth Street..
Illinois Street	Nineteenth Street	Twentieth Street	A loop at this location would eliminate both sides of parking because of light rail vehicles and offsetting United Pacific rail tracks. Traffic and parking problems in area are most difficult at corner of Twentieth and Illinois Streets and would be made worse by removal of parking on these streets. There are plans for property development along this site.
Twentieth Street	Third Street	Illinois Street	This is a good location for one layover because there is a bus stop, but getting to this area eliminates parking along Illinois Street. Having loop located at Illinois and Twentieth Street would be a major conflict for existing Port tenants and Port development plans at Pier 70 by making access to multiple Port properties difficult.
Twenty-Second Street	Tennessee Street	Third Street	Some parking would have to be eliminated at this location. The location has mixed residential and commercial area.
Twenty-Second Street	Tennessee Street	Dead End	This location has residential use and dead end at Tennessee. There would be no way to continue a loop at this location.
Twenty-Second	Illinois Street	Third Street	Driveway conflicts would occur at this location.

Table 2-1. Alternative loop locations considered and reason for their rejection

Alternate Location	Between Streets		Reason for rejection of alternative
Street			There would be no way to continue a loop at this location.
Twenty-Second Street	Illinois Street	Twenty-Third Street	At this location, the street is narrower and would create interference with driveway of west side businesses. Parking would need to be eliminated.
Twenty-Third Street	Illinois Street	The Bay	United Pacific rail crossing is at this location.
Twenty-Fourth Street	Illinois Street	The Bay	United Pacific rail crossing is at this location.
Twenty-Fourth Street	Michigan Street	The Bay	Michigan is too narrow of a street. There would be no way to continue a loop at this location.
Tennessee Street	Twenty-Third Street	Twenty-Fourth Street	90-degree parking would be eliminated at this location. Additional cost to purchase light rail vehicles would be incurred.
Tennessee Street	Twenty-Fourth Street	Twenty-Fifth Street	This location is a heavy warehouse, trucking area. Conflicts with trucking would occur.
Twenty-Fourth Street	Tennessee Street	Third Street	Conflicts with trucking and driveway would occur at this location.
Twenty-Fourth Street	Tennessee Street	Minnesota Street	Conflicts with trucks would occur at this location.



Source: CHS Consulting Group. Data provided by SFMTA.

Figure 2-1. Existing and proposed lane configurations

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3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

Evaluation of potential effects on the proposed action, inclusive of the design options described in Section 2.1.1, is presented in this section.

3.1 Resources with No Impact

Based on a review of previous environmental documents, early coordination, and public outreach, the proposed action would have no adverse effect on the following: farmlands, floodplains, hazardous materials, coastal barrier resources, coastal zone management, wild and scenic rivers, wilderness areas, wildlife, threatened and endangered species, wetlands, and water quality (FTA, 1998b). Due to the project's proximity to San Francisco Bay (approximately a quarter mile), a technical analysis for biological resources was conducted to confirm that no adverse effects would occur as a result of the proposed project. This analysis is included in Appendix B.

3.2 Aesthetics

This section provides a discussion of the aesthetic resources in the vicinity of the Loop. Aesthetics pertain to the elements that make an environment visually pleasing. While the criteria to evaluate this perceived quality of the environment are subjective, contributing elements may include a distinct element or the juxtaposition of multiple elements that compose a visual setting. Key aesthetic elements may include open space, scenery, historic features, vegetation, public artwork, and/or architecture. Adverse effects may occur through the removal, alteration, or addition of these important visual resources.

Currently, the Central Waterfront is comprised mostly of man-made landscapes, including mixed-use development, piers, and vacant lots. The creeks, marshes, waters, and hills that dominated the area prior to 1850 have been replaced with fill that supported the early development of industrial, maritime, and residential uses (City and County of San Francisco, General Plan). The area surrounding the project site is highly urbanized with a mixture of single and multi-story residential and commercial buildings, as shown in the photographs in Figure 3-2 through Figure 3-5. Structures associated with shipping (Figure 3-7) and light industry (Figure 3-4) are also present, as are several vacant lots (Figure 3-5). To the east, immediately adjacent to Illinois Street is Pier 70, owned by the Port of San Francisco.

Overhead utility lines occupy the skyline view from most vantage points around the project site, as well as in many parts of the city. Various structures associated with Pier 70, including two large cranes located at Pier 70 near Nineteenth Street dominate the skyline view. There are very limited bay views to the east from some portions of Nineteenth Street, between Illinois and Third Streets; these views are either completely or partially obstructed by numerous structures associated with Pier 70 (Figure 3-7).

The topography of the surrounding area is predominately flat; views from this area consist of other nearby residential and commercial buildings, adjacent roadways, and buildings and structures associated with Pier 70, including a seven-foot tall fence that runs immediately along Illinois Street.

Current aesthetics in the project area are considered to be very urban in quality due to the presence of industrial structures, fences, overhead utility lines, empty lots, lack of public open space, and limited views of San Francisco Bay. No distinct visual elements, open space, or vegetation are present. No designated State Scenic Highways or National Scenic Byways or ones eligible for such designation are present near the project area (Caltrans, 2013). However, the Central Waterfront area does contain three historic districts: Pier 70, Dogpatch, and the Potrero Point Historic District as discussed in Section 3.5 (SF Planning Dept., 2008a).

As detailed in Section 3.5, Pier 70 is the only district eligible for listing on the NRHP. The City of San Francisco Board of Supervisors designated Dogpatch as a local historic district, and the Potrero Point Historic District is considered eligible as a local district (SF Planning Dept., 2008a). Neither Dogpatch nor Potrero Point is considered eligible for the NRHP.

The Dogpatch Historic District is separated from the project location by the T-Third Street line. View of San Francisco Bay from the Dogpatch is obstructed by existing catenary wires and light-rail trains traveling along the T-Third Street line. Addition of the Loop would not create substantial additional obstruction of these views, and the presence of trains traveling on the Loop is consistent with the current transportation infrastructure observed from the Dogpatch neighborhood.

Pier 70 contains architectural features that may be of aesthetic value. Views of these features would not be obstructed as a result of the proposed project. Installation of rail trackway, overhead light and power supply lines, and the addition of light rail cars in the neighborhood would be consistent with the existing visual character and setting in the project area.

The Loop would also be located within the Potrero Point Historic District, also referred to as the Third Street Industrial District, which is considered eligible as a local district (SF Planning Dept., 2008a). As discussed in Section 3.5, catenary wires, “cobrahead” lights, and other features of the project would not alter the integrity of any of the districts by changing the location, setting, feeling, workmanship, materials, and association or other characteristics of the property that make it eligible for inclusion in the NRHP or listing as a local historic resource.

The addition of eight streetlights to the landscape would not change the overall visual setting. The “cobra head” streetlights direct light toward the street and do not create objectionable glare.

Proposed Action: No adverse effects on the aesthetic resources would result from the proposed action. Due to the short duration of construction (four to five months) and the low quality of existing visual resources in the project area, no adverse effects on aesthetics would result from the construction phase of the proposed action.

No Action: If the Loop were not to be constructed, no change to aesthetic resources in the project area would occur.

3.3 Air Quality

The proposed project site is located within the 5,540 square mile San Francisco Bay Area Air Basin, which includes all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, as well as the southern portion of Sonoma County and the southwest portion of Solano County. The air basin is designated as a state non-attainment area and as a marginal federal non-attainment area for ozone. The Bay Area Air Quality Management District (BAAQMD), in cooperation with the Metropolitan Transportation Commission and the Association of Bay Area Governments, has prepared the *Bay Area 2005 Ozone Strategy* to meet the state air quality requirements (BAAQMD, 2006). The strategy includes measures that encourage cities and counties in the air basin to develop and implement local plans, policies, and programs to reduce automobile use and to improve air quality. San Francisco has also adopted a Climate Action Plan (SF Dept. of Environment, 2004) to reduce greenhouse gas emissions, chiefly carbon dioxide, by encouraging alternative modes of transportation, including public transit, to reduce vehicle trips.

The proposed project is included in the *Transportation 2035 Plan for the San Francisco Bay Area*, adopted on April 22, 2009 by the Metropolitan Transportation Commission (MTC, 2009).¹ The *Transportation 2035 Plan* aims to stimulate the use of public transit, increase the safety, utility and appeal of bicycling and walking, and reduce miles traveled and emissions by cars and trucks in the Bay Area while increasing the efficiency of the roadway and transit systems for all users.

An adverse effect would occur if the project would result in:

- the long-term violation of any ambient air quality standard;
- increase the number or frequency of violations;
- contribute substantially to an existing or projected air quality violation;
- conflict with or obstruct implementation of the applicable air quality plan;
- result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable ambient air quality standard;
- expose sensitive receptors to substantial pollutant concentrations; or
- create objectionable odors affecting a substantial number of people.

Potential effects of the operation of the Third Street Light Rail, including the Loop, on air quality were evaluated in the *EIS/EIR for the Third Street Light Rail Project* (FTA, 1998b). No adverse effects were found to result from the project during that evaluation. The Loop would increase the frequency of transit service on the T-Third Street rail line to the Mission Bay area, enhance the overall transportation system, increase alternatives to vehicular travel, and provide improved services for transit-dependent population; all of which would result in the reduction of emissions of vehicle-

1. The proposed project is part of the Extension of the Third Street Light Rail from Fourth and King Streets to Bayshore Caltrain Station, Project Reference 94632. See page 114 of Appendix to the Transportation 2035 Plan for the San Francisco Bay Area (MTC, 2009).

related criteria pollutants. The cars on Muni's electrified light rail generate zero emissions on-site. Consequently, operation of the Mission Bay Loop is likely to have a positive effect on air quality since it would allow for increase in transit trips and a consequent decrease in automobile trips.

Sensitive receptors are defined as children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent facilities, and residential areas are examples of examples of facilities or areas that may house or attract sensitive receptors. Potential sensitive receptors nearest to the proposed project site are located in residential units located along the north and south sides of Eighteenth Street between Third Street and Illinois Street, as well as units along the southwest corner of Illinois Street near Eighteenth Street.

Construction equipment, such as excavators and loaders, would criteria air pollutants including carbon monoxide, sulfur dioxide, particulate matter (PM₁₀, and PM_{2.5}); reactive organic gases and oxides of nitrogen; and greenhouse gases from exhaust. Soil disturbing activities would generate particulate matter emissions. Asphalt placement would results in fugitive emissions of volatile organic compounds, carbon monoxide, sulfur, nitrogen oxides, and polycyclic aromatic hydrocarbons.

The expected emissions over the three to four month construction period would be less than significant due to the limited amount of ground disturbance and the limited project duration. All construction vehicles and equipment would be required to comply with BAAQMD requirements for diesel exhaust emissions. The following best management practices recommended by the BAAQMD would be required by SFMTA to be implemented by the construction contractor to reduce vehicle and fugitive dust emission to insignificant levels (BAAQMD, 2012):

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
- Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized by shutting equipment off when not in use and reducing the maximum idling time to five minutes as required by the Title 13 of the California Code of Regulations §2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling. Clear signage stating this requirement shall be provided for construction workers at all access points.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. A certified visible emissions evaluator shall check all equipment.
- A publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints shall be posted. This person shall respond and take corrective action within 48 hours. The Air District's phone number should also be visible to ensure compliance with applicable regulations.

Proposed Action: With implementation of these best management practices, no adverse effects on air quality would result from construction or operation of the Loop.

No Action: Without the Loop and the consequent transit enhancement, traffic congestion and related air emissions in the area would likely increase as planned developments are constructed, and vacant and underutilized land is occupied.

3.4 Climate Change

Gases that trap heat in the atmosphere are referred to as greenhouse gases because they capture heat radiated from earth as it is reflected back into the atmosphere, much like a greenhouse does. A global increase in concentrations of greenhouse gases has been implicated as the driving force in climate change. The primary greenhouse gases are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. The most common greenhouse gases resulting from human activity are carbon dioxide, methane, and nitrous oxide.

The State of California and the City of San Francisco have adopted programs for reducing greenhouse gas emissions. In 2006, the California legislature passed AB 32 (codified in the California Health and Safety Code, Division 25.5, Sections 38500 et seq.) that requires the California Air Resources Board to develop and implement emission limits, regulations, and other measures to reduce greenhouse gas emissions to 1990 levels by 2020. Two years earlier, in 2004, *The Climate Action Plan for San Francisco*, was adopted and included an accounting of greenhouse gas emissions and emission reduction recommendations for transportation, energy efficiency, renewable energy and solid waste management sectors (San Francisco Environment Code, Chapter 9: Greenhouse Gas Emissions Targets and Departmental Action Plans). Under this plan, each city department must produce and update a Departmental Climate Action plan annually. The SFMTA has prepared a Clean Air Plan – Zero Emissions 2020 outlining measures needed to achieve emission reduction targets set by the City of San Francisco (SFMTA, 2012) and, in 2011, released a Climate Action Strategy for addressing the city's transportation sector emissions, detailing new research and conclusions from extensive planning model runs and an analysis of best practices from around the world (SFMTA, 2012). Additionally, Section 8A.115 of the San Francisco Charter sets out a *Transit-First Policy* which requires that the City and County of San Francisco to promote the use of regional mass transit and the continued development of an integrated, reliable, regional public transportation system.

The Loop project furthers SFMTA's goals of reducing greenhouse gas pollution by enhancing public transportation. Increased rail ridership results in fewer vehicle and bus trips and less greenhouse gas production. SFMTA's rail vehicles generate near-zero greenhouse gases as almost all of the electricity on which these vehicles run is generated by the Hetch Hetchy

hydroelectric system as required by the city charter (SFMTA, 2012). Thus, operation of the Loop is expected to decrease the emissions of greenhouse gases.

Proposed Action: Operation of the Loop would have no adverse effect on climate. Greenhouse gas emissions during the construction phase would be temporary (up to five months in duration) and are therefore not considered to be a significant contribution to pollution implicated in climate change.

No Action: Without the Loop, traffic congestion in the area would likely increase as planned developments are constructed and vacant and underutilized land is occupied. Without effective transit options, a likely increase in vehicle travel from Mission Bay would increase emissions of greenhouse gases.

3.5 Historic and Archeological Resources

This section describes the existing regulatory and environmental conditions, and discusses the consequences of implementing the project (or no action) on cultural resources, such as buildings, sites, structures, or objects that may have historical, architectural, archaeological, cultural, or scientific importance and/or historic properties (e.g., sites, buildings, or districts that are included or eligible for inclusion in the National Register of Historic Places [NRHP]).

Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, requires federal agencies to take into account the effects of their undertakings on historic properties and, if appropriate, afford the Advisory Council on Historic Preservation an opportunity to comment on such undertakings. The council's implementing regulations, *Protection of Historic Properties*, can be found in 36 CFR Part 800. The goal of the review process mandated in Section 106 of the NHPA is to offer a measure of protection to sites determined eligible for listing or listed in the NRHP. The criteria for determining NRHP eligibility are found in 36 CFR Part 60. Recent amendments to the NHPA (1986 and 1992) and subsequent revisions to the implementation regulations have strengthened the provisions for Native American consultation and participation in the review process required by Section 106.

The criteria at 36 CFR §60.4(a)-(d) for determining the significance and eligibility of prehistoric and historic sites for inclusion in the NRHP include the following:

The quality of significance in American history, architecture, archaeology, culture, and engineering is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- a) that are associated with events that have made a significant contribution to the broad patterns of our history;*
- b) that are associated with the lives of persons significant in our past;*

- c) *that embody the distinct characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or*
- d) *that have yielded, or may be likely to yield, information important in prehistory or history.*

The process set out in Section 106 includes the completion of a Memorandum of Agreement that identifies measures to resolve any adverse effects that the project would have on cultural resources, including historic properties listed in or eligible for the NRHP.

Cultural resources must be identified if an area of potential effects (APE), which is defined at 36 CFR §800.16(d) as the geographic area in which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, is present. The APE for the proposed project is 900 feet in length and includes the width of the street along one-third of the block of Eighteenth and Nineteenth Streets near their intersection with Illinois Street, and the width of the street along one full block of Illinois Street between Eighteenth and Nineteenth Streets, as well as the footprint of bulb-outs required for installation of trolley poles along these same streets (as shown in Figure 3-8). The vertical APE extends to a maximum depth of two feet below the surface along the proposed alignment of the trackway and a maximum depth of ten feet below ground surface beneath the trolley poles.

The area within which the APE is located is within the boundaries of San Francisco's Central Waterfront Planning Area. The area was previously investigated as part of the Third Street Light Rail Project (FTA, 1998a and FTA, 1998b), the *Central Waterfront Cultural Resources Survey* (SF Planning Dept. et. al., 2001), the *Eastern Neighborhood Rezoning and Area Plans Final EIR* (SF Planning Dept., 2008b), and the 720 & 740 Illinois Street and 2121 Third Street Project Certificate of Determination (SF Planning Dept., 2011a). A detailed description of the history of this area is presented in the *Central Waterfront Cultural Resources Survey* (2001).

The Central Waterfront Planning Area is historically significant as a mixed-use industrial and residential district. Ship builders moved to the area from the South of Market district to Potrero Point. The resulting development of shipyards and industrialization of Potrero Point provided jobs for the residents of the Irish Hill and Dogpatch neighborhoods (see Figure 3-8), and also demonstrated the potential of the area to become a major shipbuilding center.

Changes to the landscape played an important role in the physical development of the Central Waterfront Area. The first major leveling of Potrero Point occurred in conjunction with the construction of the Union Iron Works in the 1880s. The iron works business grew into one of the Central Waterfront's largest industries between the 1880s and the early 20th century. These mills provided iron for the railroads, I-beams for bridges, iron rails for streetcars and San Francisco's cable cars, and produced numerous small ships. By the beginning of the 20th century, major shipbuilding, repair and refitting industry and railroad companies occupied most of Potrero Point, creating the current industrial waterfront (SF Planning Dept., 2013).

Development of Central Waterfront's residential enclaves, Irish Hill and Dogpatch, began in 1867 with the completion of Long Bridge, a wooden causeway across Mission Bay marshlands through the Islais Creek basin to Hunters Point covering a segment of what is now Third Street

(known at the time as Kentucky Street). Irish Hill, a small eight block residential neighborhood, was located between Illinois, Maryland, Twentieth, and Humboldt Streets. Over the past 100 years, the hill has been reduced in size to the extent that only a T-shaped portion remains at the southern end of the Pier 70 area. The gravel and soil taken from Irish Hill was used as fill material for the reclamation of land from the Bay at Islais Creek Basin and Mission Bay. The Irish Hill neighborhood was characterized by single, working-class, Irish male immigrants, who comprised the first primarily residential neighborhood in the Central Waterfront Area. Dogpatch developed as an isolated “company town” that grew up around the fringes of the heavy industries of Potrero Point. Several of the oldest surviving dwellings in Dogpatch, such as 718 Twenty Second Street and 707 Eighteenth Street, reflect the early history of the neighborhood (SF Planning Dept., 2013).

Investigations of archaeological and historic resources, including standing buildings and structures, in the area were conducted as part of for the Third Street Light Rail Project (FTA, 1998b), the *Central Waterfront Cultural Resources Survey* (SF Planning Dept., 2001), *Eastern Neighborhood Rezoning and Area Plans Final EIR* (SF Planning Dept., 2008b), and the 720 & 740 Illinois Street and 2121 Third Street Project Certificate of Determination (SF Planning Dept., 2011a). The Pier 70 area was recommended as eligible for listing on the NRHP as a historic district under Criterion A and C in studies conducted for the *Central Waterfront Cultural Resources Survey*. The Dogpatch was recommended in this survey as a local historic district. In 2008, the San Francisco Planning Department completed an update to the *Central Waterfront Cultural Resources Survey*. This survey entailed further evaluations of potential historic resources in the Dogpatch and the Potrero Point areas.

According to a record from the Department of Parks and Recreation District prepared as part of the 2008 survey, the Central Waterfront Area contains three historic districts: Pier 70, Dogpatch, and the Potrero Point Historic District – also referred to as the Third Street Industrial District. According to this record, Pier 70 is a district eligible for listing on the NRHP; Dogpatch was designated as a local district by the City of San Francisco Board of Supervisors; and the Potrero Point Historic District is considered eligible as a local district (SF Planning Dept., 2008a). SF Planning Department Staff confirmed that of these three districts only Pier 70 is considered eligible for the NRHP.²

In 2011 Carey & Co. Inc. prepared a nomination for the Pier 70 Historic District (Carey & Co. Inc., 2011). This document identifies the district as eligible for the NRHP under Criterion A for its association with the development of the maritime industry. The district is also eligible under Criterion C as an example of industrial architecture from the late nineteenth century to World War II.

Current assessment of the project included a review of prior cultural resources evaluations in the current project APE and a physical survey of the APE. The document review identified that the project APE is within the Central Waterfront Planning Area and Potrero Point Historic District; located east of the Dogpatch Historic District, bordering the Pier 70 Historic District to the west; and is adjacent to 720 and 740 Illinois Street, formerly occupied by a small oil plant that was identified as

2. Moses Corrette (Historic Resources Survey Team, San Francisco Planning Department) in telephone conversation with Kimberly Demuth (Technical Director Cultural Resources/Vice President, Cardno Entrix) and Jennifer Flathman (Project Architectural Historian, Cardno Entrix), February 21, 2013.

a contributing element to the Central Waterfront Planning Area/Potrero Point Historic District (a field visit on February 16, 2013 indicated that the oil plant has been demolished).

Based on the current survey, no historic properties are present within the APE (see Figure 3-8). The 534-foot portion of abandoned freight rail tracks located within the APE, and slated for removal as part of the proposed action (see Figure 1-1), was not considered a historic resource or eligible for listing as one. The track, owned by Union Pacific Railroad, was built in 1909 and has been reconstructed and upgraded several times since then. Analyses of historic resources in several studies in the area, including the *Central Waterfront Cultural Resources Survey* (SF Planning Dept., 2001) and the nomination for the Pier 70 Historic District (Carey & Co. Inc., 2011), did not identify the track as a historic resource individually eligible for the NRHP or as a contributing resource to the Pier 70 Historic District; consequently, the track segment was not considered for further analysis as a historic resource.

Contributing resources to the Pier 70 Historic District are located adjacent to the APE on the east side of Illinois Street between Eighteenth and Nineteenth Streets. The Dogpatch Historic District is located approximately two blocks from the APE and the APE is located within the boundaries of the locally eligible Potrero Point Historic District. One contributing resources is located at 2201 Third Street and is adjacent to the portion of the APE between Third and Illinois Street on Nineteenth Street. However, both of these districts are only eligible as a local district and are not considered eligible for listing on the NRHP or subject to the requirements of Section 106.

The contributing resources to Pier 70 Historic District are located outside of the APE; therefore, there would be no direct effect to these resources or the historic district from operation of the project. Although catenary wires and other features of the project would be visible from the contributing resources, these effects would not be adverse as they would not alter the integrity of the district by changing the location, feeling, workmanship, materials, and association or other characteristics of the property that make it eligible for inclusion in the NRHP. There are existing tracks and overhead wires in the area; therefore, the new features would be compatible with the existing setting and would not be an adverse effect.

In compliance with Section 106, a letter requesting consultation regarding the proposed project was transmitted to the State Historic Preservation Officer on March 27, 2013 (Appendix C). As of the issuance of the Draft EA consultation is ongoing.

Review of studies discussed above did not identify buried deposits of cultural resources within the APE; consequently, no federally recognized Indian tribes were contacted regarding the proposed project. It is possible that implementation of the proposed action could result in the potential alteration of currently unknown and unidentified buried resources that could be eligible for inclusion in the NRHP since use of the area began in the mid-1800s with ironworking and shipbuilding, as well as residential development (SF Planning Dept. et. al., 2001). Results of a geotechnical investigation conducted in the APE indicate that the immediate vicinity of the proposed project location consists of Quaternary artificial fill and sand deposits, which may contain historic artifacts (Northgate, 2009). The likelihood of encountering pre-contact archaeological materials is low due to the artificial fill deposits and historic modifications.

Mitigation Measure H1: Prior to any ground disturbing activities associated with the project, all contractors and crew involved in the ground disturbing activities shall participate in training to identify potential cultural resources, or be presented a copy of the archaeological resource “ALERT” sheet issued by the City of San Francisco Planning Department to inform them of the possibility of uncovering cultural resources during project activity. The contractors and crew shall sign an attendance sheet to verify their participation in the training session or receipt of an “ALERT” sheet. The attendance sheet shall be made available to staff of the FTA, SFMTA, and/or a City of San Francisco’s Environmental Review Officer.

If, during ground-disturbing activities, cultural resources are discovered work shall be halted immediately within 50 feet of the discovery, appropriate staff from the SFMTA and/or the Environmental Review Officer shall be notified, and a professional archaeologist shall be retained to determine the significance of the discovery and, if necessary, to present measures to protect the discovery, including avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. If human remains are encountered, the coroner’s office will also be contacted. Federally recognized Indian tribes with interest in the area will be notified and the SFMTA, in consultation with the FTA and the SHPO, shall consider and implement appropriate measures for the protection of any unanticipated discoveries of cultural resources.

Implementation of Mitigation Measure H1 will limit or negate potential adverse effects on inadvertently discovered significant cultural resources during the implementation of ground disturbing project activities.

Construction of the Loop would also generate temporary noise, dust, and vibration. As discussed in Sections 3.8 and 3.9, best management practices required by SFMTA to be implemented during construction would minimize potential noise and vibration impacts; consequently, no adverse effects on historic resources would result from construction activities.

Proposed Action: With the implementation of Mitigation Measure H1 there would be no adverse effects to historic properties from the proposed action.

No Action: If the Loop were not constructed, no adverse effects to historic resources in the area would occur.

3.6 Resources Subject to Section 4(f) of the Department of Transportation Act

Section 4(f) of the Department of Transportation Act of 1966 (49 USC §303), as amended, requires consideration of:

- Parks and recreational areas of national, state, or local significance that are both publicly owned and open to the public;
- Publicly owned wildlife and waterfowl refuges of national, state, or local significance that are open to the public to the extent that public access does not interfere with the primary purpose of the refuge;

- Historic sites of national, state, or local significance in public or private ownership regardless of whether they are open to the public (see 23 USC. §138(a) and 49 U.S.C. §303(a)).

The Act specifies that the Secretary of Transportation may approve a transportation program or project requiring the use of the above listed lands only if:

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

As defined in Section 4(f), use can occur under three circumstances: (1) when protected land is permanently acquired for a transportation facility, (2) when a temporary occupancy is considered adverse, or (3) when there is “constructive use” of the resource.

As defined in 23 CFR 774.13(d) temporary occupancy is permitted in these circumstances:

1. Duration must be temporary, i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land;
2. Scope of the work must be minor, i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal;
3. There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis;
4. The land being used must be fully restored, i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project; and
5. There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.

There are no park or recreation properties officially designated as such by a federal, state, or local agency and no wildlife or waterfowl refuges in the project area. Although Illinois Street is used by bicyclists for transportation it has not been formally designated as a recreation area that would be subject to Section 4(f). The closest park to the project site is Esprit Park, located approximately four blocks (approximately one-quarter mile) away at Minnesota Street, between Nineteenth and Twentieth Streets. Other recreation areas within a half-mile of the project site include: Bay Front Park to the north located south of Pier 52; Mission Bay Commons Park located just east of Third Street and Bridgeview Way; and Jackson Playground and Tennis Court to the west at Seventeenth and Arkansas Streets (Figure 3-9). The Port of San Francisco is planning to construct a park at Crane Cove on land which is part of the Pier 70 Historic District. Construction on the park is planned to begin in late 2014 or early 2015.³ Crane Cove Park will be adjacent to the Proposed Project but

3. David Beaupre (Port of San Francisco) in email correspondence with Peter Brown (SFMTA) regarding Port 70 Crane Cover Park construction timeline, March 11, 2013.

neither the construction nor operation would result in a use of this resource under Section 4(f). The additional transportation facilities could facilitate further use of the proposed park by the public.

Historic sites, including buildings, objects, historic districts, historic bridges, archaeological sites, and properties with religious and cultural significance qualify for protection under Section 4(f), if they are listed on or eligible for listing on the NRHP (23 CFR §774.11). Unlike parks, recreation areas, and refuges, historic sites do not require public ownership in order to qualify for protection under Section 4(f). An individual property within an NRHP historic district is significant if it is individually listed or eligible for the NRHP or if it is a contributing element of a district listed or eligible for the NRHP.

Proposed Action: As discussed in Section 3.5, no historic properties are present in the APE and it does not appear that any of the existing buildings or structures immediately adjacent to the APE within the boundaries of the Pier 70 Historic District would be adversely affected by the proposed project. As discussed in Section 3.5, the construction of the Loop would not affect any of characteristics of the Pier 70 Historic District that make it eligible for inclusion in the NRHP. The Dogpatch Historic District and the Potrero Point Historic District are not recommended as eligible for the NRHP; therefore, their use is not subject to evaluation under Section 4(f).

There is only one historic district, Pier 70 that has been identified as a resource subject to Section (4)f. This resource will not be adversely affected by the project as it is outside of the APE, therefore, the proposed action will have no use of resources subject to Section 4(f).

No Action: If the Loop were not constructed, no use of resources subject to Section 4(f) would be necessary; consequently, no adverse effect on such resources would occur.

3.7 Land Use

Potential effects of the project and the no action alternative on current and future land use are discussed in this section. The potential for the proposed project to conflict with the objectives of federal, regional, state, and local land use plans, policies, and controls for the area; and to induce changes in the pattern of land use, population density, or growth rate is examined.

The location of the proposed Loop is the northern portion of the Central Waterfront area of San Francisco. The Central Waterfront is bounded by Mariposa Street on the north, San Francisco Bay on the east, Islais Creek to the south, and Interstate 280 to the west. The Loop would be accessed from a number of streets in the Central Waterfront, including Third Street, Eighteenth Street, Nineteenth Street, and Illinois Street.

Land uses in the vicinity of the proposed Loop include warehouses, residential, retail, and vacant parcels. Developed land in the area is located mostly along Third Street and Illinois Street, and includes a network of paved and dirt paths, restrooms, picnic facilities, two fishing piers, paved lookout points, and an unused boat launch facility. Industrial uses, warehouses, and residential use are found along Illinois Street from southeast to northeast. Land use to the west of Illinois Street and north of Nineteenth Street includes light industrial, warehouse distribution, and warehouse retail. The

block to the south of the project area contains residential, industrial, and warehouse uses. There are no historic landmarks in the project area (NPS, 2013).

Directly east of the project site is Pier 70, situated on approximately 69-acres of the Central Waterfront. The area has been identified as the most intact nineteenth century industrial complex west of the Mississippi River and is an important part of the maritime history of the Bay Area. It is consequently eligible for listing as a National Historic District. Proposed future redevelopment of Pier 70 would include rehabilitation of historic resources, new shoreline, open space and recreation development, infill development, and continuation of historic ship repair operations.

Land use in the project area is governed by the *City of San Francisco General Plan*; which includes the *Central Waterfront Area Plan* (SF Planning Dept., 2013) and the San Francisco Municipal Code.

The vision for land use and transportation changes in Central Waterfront was first articulated in the Eastern Neighborhoods Community Program that covers the neighborhoods of Mission District, East South of Market, Central Waterfront, Showplace Square, and Potrero Hill. The vision for each of these neighborhoods was incorporated into area plans included in the *General Plan*, of which the *Central Waterfront Area Plan* is one (SF Planning Dept., 2013).

The *Central Waterfront Area Plan* was adopted in 2008 (superseding a 1990 *Central Waterfront Area Plan* adopted by Planning Commission) and included the following major goals: 1) ensuring a stable future for production, distribution, and repair (PDR) businesses in the city, mainly by reserving a certain amount of land for this purpose; and 2) providing a significant amount of new housing affordable to low, moderate, and middle income families and individuals, along with “complete neighborhoods” that provide appropriate amenities for these new residents. The plan also called for increased transit use in the area, specifically:

- Decrease in transit travel time and improved reliability through a variety of means, such as transit-only lanes, transit signal priority, transit “queue jumps,” lengthening of spacing between stops, and establishment of limited or express service.
- Establishment of a land use pattern that supports and encourages transit use, walking, and biking.

Favoring investment in transit infrastructure and services over investment in highway development and other facilities that accommodate the automobile is consistent with both the *Central Waterfront Area Plan* as well as the three other area plans for the Eastern Neighborhoods: East SOMA, Mission, and Showplace Square/Potrero Hill. By expanding the frequency of transit service from the Central Waterfront area to Chinatown, Mission Bay, and SOMA neighborhoods, the proposed action would help to achieve the goal articulated in the area plans for the Eastern Neighborhoods to establish public transit as the primary mode of transportation in San Francisco and as a means through which to guide future development and improve regional mobility and air quality. Providing residents of the Central Waterfront with more frequent transit service towards downtown San Francisco is also consistent with the policy objectives of the *Central Waterfront Area Plan* to establish a land use pattern that supports and encourages transit use. The availability of frequent

transit service toward downtown is likely to attract more transit-oriented residential and other development. The Mission Bay Loop project is consistent with the city's laws, regulations, plans, and policies concerning land use and would be consistent with regional transportation and development plans, including the *Transportation 2035 Plan for the San Francisco Bay Area* (MTC, 2009).

The Loop would be constructed within an existing transportation right-of-way; therefore, none of the existing land uses described above would be converted for the project. No substantial change to the existing built environment is anticipated to result from the Loop construction that would change the existing character of the site and vicinity.

The San Francisco Planning Commission recently approved a residential development on the west side of Illinois Street, bounded by Third, Eighteenth, and Nineteenth Streets; directly adjacent to the site of the Mission Bay Loop. A commercial fueling facility was demolished and two lots were merged into a single lot to accommodate the construction of an approximately 65-foot tall, 117,198 square foot residential building containing 104 residential units, 78 off-street parking spaces and 40 bicycle parking spaces. Effects on land use related to the development of the Loop identified in the *EIS/EIR for the Third Street Light Rail Project* included conversion of vacant and underutilized land in the area to residential and commercial uses and the land conversion was determined to have a positive effect and require no mitigation. The current condition reflects the anticipated conversion of land use to more residential and commercial.

Proposed Action: No substantial change to the existing character or land uses of the site and vicinity is anticipated to result from construction and operation of the Loop. The proposed action is consistent with the city's ordinances, regulations, plans, and policies concerning land use and would be consistent with regional transportation and development plans.

No Action: No action is inconsistent with the objectives of adopted plans and policies that aim at establishing transit as a primary mode of transportation in San Francisco. Additionally, under the "no action" scenario, transit service to the Mission Bay would not meet the projected ridership demand to downtown San Francisco.

3.8 Noise

Major sources of existing noise in the project area originate from vehicular traffic and large trucks associated with industrial activities in the project area.

Land uses near the proposed Loop include warehouses, residential, light industry, and several vacant parcels. Sensitive receptors in the area consist of residential units located on the north and south sides of Eighteenth Street and on the northwest corner of Illinois Street. In addition, the Dogpatch Campus of the La Scuola Internazionale di San Francisco, an Italian immersion school is located at the corner of Twentieth and Tennessee streets. The school is approximately 400 feet from the project site. Open space and parks, including Crane Cove Park, are proposed for the Pier 70 site and would be located adjacent to the proposed Loop on the east side of Illinois Street (Figure 3-10).

Existing noise levels at the proposed project site were measured over a period of 72 hours beginning on January 8, 2013. The day-night average sound level was found to range from 71 decibels to 76 decibels, with the peak hour average sound level reaching 70 to 78 decibels.

As mentioned above, the project is located adjacent to several existing residential buildings, proposed open space and parks, and about 400 feet from a school. Based on FTA guidance manual *Transit Noise and Vibration Impact Assessment*, when existing noise levels are 70 decibels or higher, an increase less than one decibel constitutes no impact, an increase of one decibel constitutes a moderate impact, and an increase of three decibels constitutes a severe impact for both the day-night average sound level and peak hour average sound level (FTA, 2006). The CEQA threshold for a significant noise impact is three decibels or more regardless of background noise level. Appendix D provides a noise study conducted from January 8 to January 11, 2013 for the proposed Loop project, the results of which are summarized herein. Using average outbound noise levels recorded on January 11, 2013 at similar SFMTA turnaround facilities, noise increase associated with the Loop was calculated using the following assumptions:

- SFMTA estimates that the Loop would support six to eight light rail vehicles daily with an estimated 77 total street cars per day; and
- These vehicles would use the Loop as part of weekday operations (7:00 a.m. to 6:00 p.m. on weekdays) to increase service to and from Mission Bay.

Using the above assumptions and existing ambient noise levels, the increase in both day-night average and peak hour average noise levels on nearby residences or the open space and parks from operation of the Loop would be less than one decibel. Further, the noise contribution of six to eight light rail vehicles per hour during peak commute hours would not significantly elevate existing noise levels.

The impact of the increased day-night average and peak hour average sound levels from operation of the Loop on the La Scuola Internazionale di San Francisco would be less than one decibel. Based on the FTA's guidance manual, the increase in the noise levels would have no impact on the residences or the school (FTA, 2006).

Construction activities may cause a short-term increase in noise levels. The increased noise would be constrained to hours specified by the city's ordinances. According to the City of San Francisco Noise Ordinance, construction equipment noise should not exceed 80 decibels when measured at 100 feet. Since construction activity could occur as close as 20 feet from sensitive receptors, the allowable noise limit would be increased to 94 dB at 20 feet. Construction noise levels may at times exceed the San Francisco Noise Ordinance limit resulting in a short-term significant noise impact. The following best management practices for noise control should be implemented as applicable during construction to minimize any potential adverse effects from construction noise:

1. All internal combustion engine-driven construction equipment should be equipped with the best available mufflers and kept in good condition.
2. When feasible, "quiet" gasoline or electric-powered compressors should be used.

3. When feasible, electric rather than gasoline or diesel-powered forklifts should be used, unless load demands cannot be handled by electric lifts.
4. Where feasible, minimize the use of impact wrenches.
5. Where possible, sound barriers should be erected around stationary noise generating operations.
6. Construction vehicles should be required to turn off engines and compressors when not in operation.
7. Truck routes should be defined with the Planning Department to confine noisy trucks to streets that currently have the heaviest traffic.
8. Where feasible, truck staging area should be located away from acoustically sensitive areas.
9. An acoustical consultant should be retained to periodically measure noise levels and provide assistance with developing additional noise attenuation techniques where needed.
10. Where reasonable, hammer drilling should be avoided; instead, core bits should be used.
11. Where possible, powder-actuated fasteners should be avoided; instead, concrete screws should be used.
12. The general contractor should maintain awareness among all trades of the noise sensitivity of project.
13. An owner or contractor noise disturbance coordinator should be appointed to act as a liaison between the SFMTA and adjacent neighbors. The disturbance coordinator responsibilities and authority should be as follows:
 - a. Familiarity with the project and construction schedule;
 - b. Attendance at weekly construction meetings;
 - c. Monitoring project compliance with respect to noise;
 - d. Rescheduling, as practicable, noisy construction activities to minimize effects on surrounding noise sensitive receivers;
 - e. Site supervision of all potential sources of noise (e.g., material delivery, shouting, debris box pick-up and delivery) for all trades; and
 - f. Intervening and/or discussing noise control options with contractor.

Proposed Action: No adverse noise effects would result from operation of the Loop. With implementation of the best management practices impacts would have no adverse effects would result from the construction of the Loop.

No Action: Under this alternative, no changes to the existing environment would occur, and no adverse noise effects would result.

3.9 Vibration

Vibration effects were evaluated in accordance with the FTA guidance manual *Transit Noise and Vibration Impact Assessment*, and the evaluation is included in Appendix D (FTA, 2006). Land uses specified in the San Francisco General Plan were utilized in the evaluation. The assessment of vibration effects from the proposed action is based on a comparison of existing and projected future vibration exposure at potentially sensitive land uses in the project area. Sensitive receptors in the project area include residential units located along Eighteenth and Illinois Streets and La Scuola Internazionale di San Francisco, located approximately 400 feet from the project site at the corner of Twentieth and Tennessee Streets.

FTA guidelines for vibration criteria are based on the number of events that occur in one day and range from 72 velocity decibels for frequent events (greater than 70 events) to 80 velocity decibels for infrequent events (less than 30 events) (FTA, 2006). For the proposed action, the SFMTA plans 77 additional events per day placing the project in the *frequent* events category. FTA recommends that frequent events not exceed 72 velocity decibels, which corresponds to the threshold of human vibration detection.

Based on FTA prediction methodology, measured vibration levels experience gains and losses in energy due to foundation coupling (how the receiver buildings are attached to the ground), floor-to-floor propagation (height of the building), and building resonance. For the proposed action it was assumed that such factors would contribute to a four-velocity decibel reduction over measured vibration levels. The maximum levels measured for most regular streetcars would be 72 velocity decibels or lower.

To determine expected vibration values associated with the operation of the Loop, vibration measurements were recorded in field tests conducted on January 11, 2013 at a similar light rail turnaround north of the project site at Third and Channel Streets (see Appendix D). This sample location is less than one mile from the proposed Loop location and was chosen because the inbound and outbound rail lines had turning distances similar to those on the proposed Loop. The inbound rail line at Third and Channel Streets closely matches the distance (40 feet from receiver) of the proposed left turn at the Loop onto Eighteenth Street from the receiver. The outbound rail line (20 feet from receiver) closely matched the distance of the Loop rail line turning right onto Illinois and onto Nineteenth Street. Speed of the trains on the lines at the measurement location also closely matched speeds of the trains that would use the Loop.

Vibration measurements collected at the Third and Channel Streets location ranged from 60-70 velocity decibels for inbound trains and 67-76 velocity decibels for outbound trains, suggesting that the operation of the Loop would not exceed the vibration values provided in FTA's guidelines. While the measured events did comply with the FTA guidelines for vibration, there may be times when train activity exceeds the FTA recommendations. Factors that would affect vibration levels include the condition of the wheels and trackway, as well as the speed of the train. The SFMTA routinely inspects and maintains trackways and rail vehicles. To further lower the vibration velocity, the speed of the trains would be under five miles per hour when turning corners at the Loop.

During construction of the Loop, vibration levels would not affect the La Scuola Internazionale di San Francisco, one of the sensitive receivers near the proposed project location,

since the school is approximately 400 feet away from the proposed project site. However, vibration levels at the residences on Eighteenth and Illinois Streets along the Loop may exceed the FTA vibration guidelines at various times during construction. Similarly, buildings at the Pier 70 (considered eligible for the NHRP as a historic district as discussed in Section 3.5) could be extremely susceptible to vibration damage if levels were to exceed 90 velocity decibels. The closest structures at Pier 70 are located approximately 200 feet from the Loop.

The following best practices would be implemented into the construction plan to reduce vibration levels at adjacent residences and other sensitive receivers:

1. Routing of heavily loaded trucks away from sensitive receivers;
2. Phasing of demolition activities so that earth-moving and ground-impacting activities do not occur simultaneously;
3. Conducting vibration inducing activities only during permitted daytime hours;
4. Minimizing demolition activities that incorporate ground-impacting operations; and
5. Use of vibratory rollers and packers, if used, away from sensitive receivers.

Proposed Action: No adverse vibration effects would result from operation of the Loop. Potential adverse vibration effects associated with construction activities would be avoided by implementation of best management practices described above.

No Action: Without construction of the Loop, no changes to the existing environment would occur and no adverse vibration effects would result.

3.10 Parks and Recreation Areas

The closest park to the project site is Esprit Park, located approximately four blocks (approximately one-quarter mile) away at Minnesota Street, between Nineteenth and Twentieth Streets. Other recreation areas within a half-mile of the project site include: Bay Front Park to the north located south of Pier 52; Mission Bay Commons Park located just east of Third Street and Bridgeview Way; and Jackson Playground and Tennis Court to the west at Seventeenth and Arkansas Streets (Figure 3-9).

Directly east of the project site is Pier 70, situated on approximately 69-acres of the Central Waterfront. The Port of San Francisco recently completed a *Pier 70 Preferred Master Plan* (Port of SF, 2010) in which the agency outlined an approach to providing new shoreline open space at Pier 70. Figure 3-10 shows open space and parks proposed for the Pier 70 site, including Crane Cove Park, which would be located just east of the project area. A preliminary transportation analysis conducted during the planning process for Pier 70 improvements suggested that, given the available vehicle capacity of the existing street network, successful development at Pier 70 would require significant use of alternative modes of travel. Thus, the Port and its development partners would have a joint interest and responsibility to design and manage new development at Pier 70 in a manner that actively promotes high levels of transit, pedestrian, and bicycle access and would prioritize resources and services to increase transit service levels (Port of San Francisco, 2010). The Mission Bay Loop

would support recreation goals that have been planned for the Pier 70 area and would not create adverse effects.

Noise associated with the operation of the Loop is expected to increase no more than one decibel, which would not result in a noise impact on any nearby recreation areas (see Section 3.8), including the proposed Crane Cove Park at Pier 70.

Proposed Action: No adverse effects to recreation resources would result from the construction of the Loop, since the construction activities would be short in duration (four to five months). Similarly, the operation of the Loop would not adversely affect present or future recreational resources in the vicinity of the project site. The increase in operational noise would be no more than one decibel; consequently no adverse noise impact would result.

No Action: By maintaining existing conditions (not constructing the Loop), benefits of improved pedestrian and bicycle access to existing and future recreational facilities would not occur as compared to the proposed action.

3.11 Safety and Security

The goal of FTA's Safety and Security Program is to achieve the highest practical level of safety and security for all modes of transit. In order to protect passengers, employees, revenues, and property, all transit systems are encouraged to develop and implement a proactive system safety program plan. FTA supports these efforts by developing guidelines and best practices, providing training and by performing system safety analyses and reviews (FTA, 2013).

The SFMTA's Sustainable Streets Division has implemented the following safety initiatives to increase the safety of passengers, employees, and the public:

- Regular Collision Totals Review
- New Signals and Signal Upgrades
- Pedestrian Countdown Signals
- Pedestrian Safety
- Educational and Enforcement Efforts
- Bicycle Safety
- Signal Timing Changes
- Traffic Calming Programs
- School Safety Program and Crossing Guards

Collision data for incidents involving Muni vehicles are collected in SFMTA's Transit Safe database and reviewed for potential system upgrades (SFMTA, 2012).

The Loop section of the T-Third Street light rail would be signalized and managed within the current SFMTA safety framework. No adverse effects on safety are anticipated.

The SFMTA also has an emergency response program to ensure that emergencies are addressed within reasonable timeframes. The proposed Loop would be located in a sparsely vegetated urban area not subject to wildfires. Potential urban fires would be addressed through applicable planning and building codes, and a fire suppression and alarm system that would notify local fire departments of fires.

SFMTA trains and facilities are policed by the San Francisco Police Department. The potential need for one additional security officer was identified for the entire T-Third Street light rail line in the *EIS/EIR for the Third Street Light Rail Project*. The Loop is a very small fraction of the T-Third Street line and would not require additional security beyond that available for the T-Third Street line.

In the event of a major regional disaster, coordination and response activities are guided by the *Regional Transportation Emergency Management Plan* (MTC, 2008). The purpose of the plan is to improve the ability of Bay Area public transportation agencies to recover operations and deliver basic transportation services after a significant regional disaster. The plan defines procedures for interagency communication and decision-making to provide basic transportation for the general public and defines the roles and responsibilities of state, regional, and local agencies (MTC, 2008).

The proposed action would be in compliance with Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks*. This executive order states that each federal agency must make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children. Under Executive Order 13045, federal agencies must also ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks. There are no facilities that service children in the immediate vicinity of the proposed Loop. La Piccola Scuola Italiana di San Francisco, a K-8 school, is located one block southwest of the proposed Loop. Operation of the Loop a block away would not affect the safety of children at this location. The SFMTA has implemented a School Area Safety Program (discussed in SMFTA, 2012) as part of the Transportation Engineering/Livable Streets Subdivisions and strives to make streets near San Francisco's public and private schools safer for walking, bicycling, and public transportation.

Proposed Action: Operation of the Mission Bay Loop would not result in any adverse environmental health or safety risks to children in the project area. Due to the small footprint of the project and the short construction period, construction of the Loop would not result in adverse effects to safety and security.

No Action: Not constructing the Loop would not change the existing safety condition and would therefore have no adverse effect on safety or security.

3.12 Transportation

The potential effects of the proposed action and the no action alternative on traffic, transit operation, parking, and pedestrian and bicycle access are discussed in this section.

3.12.1 Vehicular Traffic

The existing street network in the project area is largely a grid (Figure 1-1). Third Street is the principal north-south arterial street connecting Downtown San Francisco to the north and Visitacion Valley in the south. It has two travel lanes and street parking in each direction, and the T-Third Street light rail line runs in a center median. Illinois Street also runs in the north-south direction, parallel to and east of Third Street. Illinois Street has one travel lane in each direction and street parking on both sides of the street. Illinois Street has primarily industrial and warehouse uses with limited residential buildings on the northern end of the street. Eighteenth and Nineteenth Streets are local streets running in the east-west direction connecting Third and Illinois Streets, with one travel lane in each direction and street parking on both sides of the street. Land use on Eighteenth and Nineteenth Streets is mostly residential with some warehouse buildings.

An average weekday traffic volume on Third Street is approximately 28,100 vehicles; and the traffic volume on Illinois is approximately 5,290 vehicles per day.⁴ Traffic volume on Eighteenth and Nineteenth Streets is observed to be generally low, and the streets provide a sufficient capacity for daily trips and peak-hour traffic in the study area.

Level of service (LOS) is a quality measure of traffic operations based on the delay to drivers. The scale ranges from LOS A to LOS F with LOS A representing free flow or excellent conditions with short delays, and LOS F representing congested or overloaded conditions with extremely long delays. In the City of San Francisco, LOS D or better is considered acceptable. Based on traffic counts collected in July 2012, the intersection of Nineteenth and Third Streets currently operates at LOS B during the PM peak hour (SF Planning Dept., 2012). The *Final EIS/EIR for the Third Street Light Rail Project* showed the intersection of Eighteenth and Third Streets also operated at LOS B. While there is no data for the intersections along Illinois Street, a minimum condition of LOS B is expected at these intersections because traffic volume along Illinois Street is substantially lower than that of Third Street, according to the SFMTA traffic count data.

3.12.2 Intersection Performance

Implementation of the proposed project is not expected to generate any additional vehicle trips on the street network nor reduce the roadway capacity significantly. It would generate approximately additional eight light rail vehicle trips per hour during the AM and PM peak periods. Therefore, the streets would continue to provide sufficient capacity for daily trips and the peak hour traffic in the project area.

4. Traffic volumes on Third Street and Illinois Street are estimated based on the count data collected in the past by the SFMTA combined with estimated traffic growth from recent developments in the vicinity of the project since SFMTA's data collection. Third Street is estimated to carry approximately 28,100 vehicles per day accounting for 24,040 vehicle trips recorded in 1997 plus 4,060 additional vehicle trips from recent developments such as 2051 Third Street, 720 & 740 Illinois Street, 2020 Third Street, 2290-2298 Third Street and 2235 Third Street. Illinois Street is estimated to carry approximately 5,290 vehicle trips a day based on 4,640 vehicle trips recorded in 2008 plus additional 650 vehicle trips from recent developments at 720 & 740 Illinois Street and 2121 Third Street.

Operating conditions at the intersections in the project area would potentially change due to the proposed exclusive turns at intersections along Third Street and Illinois Street and the addition of two signalized intersections along Illinois Street at Eighteenth and Nineteenth Streets.

Intersections along Third Street at Eighteenth and Nineteenth Streets: Trains on the T-Third Street light rail line would make an exclusive left-turn at the intersection of Third Street and Eighteenth Street to enter the Loop and make an exclusive right-turn at the intersection of Third and Nineteenth Streets. These movements could potentially cause additional delays for northbound traffic on Third Street. These movements would occur every 7.5 to 10 minutes between 7:00 a.m. and 6:00 p.m. and cause approximately 9 seconds of additional delays at the intersections. This would have minimal effect on intersection LOS. The intersection of Third and Nineteenth Streets would continue to operate at LOS B. The intersection of Third Street and Eighteenth Street would also have minimal effect from the proposed project.

Intersections along Illinois Street at Eighteenth and Nineteenth Streets: Trains on the Loop would make exclusive right-turns at the intersections of Illinois and Eighteenth Streets and Illinois and Nineteenth Streets to return northbound on Third Street. These intersections are currently not signalized. Signals to regulate train, vehicular, and pedestrian traffic at these two intersections are proposed as part of the project to allow trains to make the turns on an exclusive phase. The new signals would be actuated when train controls are not in place. Since the traffic volumes at these two intersections are generally low, the proposed project is not anticipated to substantially increase average delays or cause the conditions at these intersections to deteriorate to an unacceptable LOS.⁵

Implementation of the proposed project is expected to improve operating conditions at these intersections by offering improved transit service (see Section 3.12.5), which encourages a shift in transportation mode from automobiles to transit.

Proposed Action: The proposed project would result in no adverse effect on intersection performance.

3.12.3 Lane Configuration

Eighteenth and Nineteenth Streets: The curb-to-curb width on Eighteenth and Nineteenth Streets is 42 feet including parking on both sides of the street. The existing segments of the 11-foot trackway constructed in 2003 would be extended in the center of both Eighteenth and Nineteenth Streets between the existing two travel lanes, with one lane in each direction. A minimum of 10 feet is typically required for a travel lane and a minimum of seven feet is required for a parking lane. Therefore, proposed project would result in reduction in roadway capacity as there would not be sufficient width to retain vehicular flow while trains are making their way onto Illinois Street from Eighteenth Street or onto Third Street from Nineteenth Street. To avoid reduction in roadway capacity, the SFMTA would require implementation of one of the three design options listed below.

5. Peak-hour traffic data is not available for Illinois Street, thus no LOS analysis was conducted. However, based on the average daily traffic volume collected by SFMTA and discussed in Section 3.12.1, the traffic volume on Illinois Street is very low with less than one-fifth of the volume of traffic on Third Street. Therefore, the intersections along Illinois Street are expected to operate at a better LOS than that on Third Street (LOS B or better).

Cross sections for these options are presented in Figure 2-1. Implementation of one of the design options would ensure that lane capacity would not be reduced.

Design Option 1: To ensure clear right-of-way for light rail vehicles to use Eighteenth and Nineteenth Streets, vehicular access would be controlled by signalization at the four intersections surrounding the Loop: Third and Eighteenth Streets; Illinois and Eighteenth Streets; Illinois and Nineteenth Streets; and Third and Nineteenth Street. Vehicles would be stopped at on Third and Illinois Streets until trains have left Eighteenth or Nineteenth Streets; after which time, vehicular traffic would resume use of Eighteenth or Nineteenth Street.

No adverse effect on traffic are anticipated to occur with implementation of this option because train movement along Eighteenth or Nineteenth Streets would take less than one minute and vehicle volumes on these streets are generally low.⁶ Potential conflicts may occur between trains and vehicles exiting adjacent driveways or on-street parking. However, installation of flashing light signals by the exit from each driveway and on the street warning vehicles to wait until the train clears and to then proceed with caution would minimize potential adverse effect on safety. The flashing light signals are described in Section 3.12.4.

Design Option 2: Vehicles and trains would be allowed to travel in the same direction in mixed traffic. To provide sufficient width for vehicle and train travel, parking would be limited to the south side of Eighteenth Street and the north side of Nineteenth Street. “No Parking” and “No Stopping, 7 a.m. to 6 p.m.” signs would need to be installed along the north side of Eighteenth and the south side of Nineteenth Streets.

Prohibiting parking from 7 a.m. to 6 p.m. along Eighteenth and Nineteenth Streets would cause a loss of approximately 15 parking spaces, including seven spaces along Eighteenth Street and eight spaces along Nineteenth Street. This loss could potentially cause drivers to circulate looking for parking spaces (potentially west of Third Street) and create secondary traffic impacts. However, as San Francisco does not consider parking supply as part of the permanent physical environment, the city does not consider changes in parking conditions to be environmental impacts. Parking deficits are considered to be social effects, rather than impacts on the physical environment. Therefore, no adverse effect on parking is anticipated to occur with this design option. Improved light rail service north of Nineteenth Street would help to reduce the need for automobiles and subsequently the need for parking.

There are several streets in the city where light rail trains and vehicles safely travel in mixed traffic, such as Market Street and Duboce Avenue. Safe operation of light rail under similar conditions in other parts of the city indicates that mixed traffic do not pose significant safety problems to train operation. Therefore, no adverse effect on safety is anticipated to occur as a result of implementation of this design option.

6. Assuming trains would travel at five miles per hour, it would take approximately 40 seconds to clear Eighteenth or Nineteenth Street (300 feet segment). Traffic volume on Nineteenth Street was observed to be approximately 33 vehicles per hour during the PM peak hour in July 2012 according to the 2290 – 2298 Third Street Transportation Impact Study (SF Planning Dept., 2012). With the completion of 70-unit residential development on Illinois Street currently under construction, the traffic volume is expected to increase, but not substantially.

Design Option 3: In order to ensure the safety of the public and train operation, Eighteenth and Nineteenth Streets may be converted into one-way couplets. Vehicles access would be controlled until trains have left Eighteenth or Nineteenth Streets, with vehicles travel on Eighteenth Street in the eastbound direction only, and vehicle travel on Nineteenth Street in the westbound direction only. Potential conflicts may occur between trains and vehicles exiting adjacent driveways or on-street parking. However, installation of flashing light signals by the exit from each driveway and on the street (described in Section 3.12.4.) would warn the vehicles to wait until the train clears and to then proceed with caution, and would minimize any potential adverse effect on safety. No impact on LOS or on adjacent intersections would result from implementation of this design option due to the low volumes of traffic in the area.

Illinois Street: The curb-to-curb width on Illinois Street is 50 feet, including parking on both sides of the street. The lane configuration with the proposed project from west to east would include a 17-foot travel lane, an 11-foot Muni right-of-way, and a 22-foot traffic lane. Therefore, Illinois Street would continue to have sufficient right-of-way for travel lanes and parking on both sides of the street with the proposed project.

Figure 2-1 illustrates detailed lane configurations on Eighteenth, Nineteenth, and Illinois Streets under the existing condition and with the construction of the proposed project.

Proposed Action: With implementation of one of the three design options, the proposed project would result in no adverse effect on roadway capacity.

3.12.4 Driveway Access

There are two main driveways off Eighteenth Street on the south side of the street and a proposed driveway off the west side of Illinois Street. These driveways serve the adjacent multi-family residential developments. When a light-rail train would be present, there may be potential conflicts between the train and vehicles exiting the garage and making a left turn across the trackway. It is anticipated that the vehicles turning left into the driveway across a trackway would have lesser safety issues because both the train and the vehicle would have sufficient sight distance to yield to each other.

There are a number of locations in the city where similar conflicting movements are present, such as at Thirtieth Street between Church and Chenery Streets and Fifteenth Street between Taraval and Ulloa Streets. While SFMTA does not currently have any special protocols or rules to manage the safety at these locations, safe operation of light rail under similar conditions in other parts of the city indicates that the vehicle turns do not pose significant safety problems to train operation. Therefore, it is anticipated that the proposed project would not cause significant safety problems for vehicle driveway access. However, SMFTA would install flashing light signals by the exit from each driveway in order to warn the exiting vehicles to wait until the train clears and proceed with caution.

Proposed Action: The proposed project would result in no adverse effect on the safety of driveway access.

3.12.5 Transit

The project area is served by T-Third Street light rail line and a local bus line (22-Fillmore) provided by the San Francisco Municipal Railway (Muni). The T-Third Street light rail line operates along Third Street between the Bayshore neighborhood and Downtown San Francisco with 9- to 10-minute headway throughout the day. The nearest northbound stop is located on Third Street just south of Nineteenth Street. The 22-Fillmore line serves the Central Waterfront and Mission neighborhoods with 8- to 9-minute headway throughout the day. The nearest stop is located at the intersection of Third Street and Eighteenth Street.

By providing turnaround capabilities for the T-Third Street light rail line through a connection from Third Street to Eighteenth, Illinois, and Nineteenth Streets, the Loop would increase the frequency of service on the T-Third Street line from the project area to the north between 7:00 a.m. and 6:00 p.m. The Loop would also allow for enhanced frequency of train service on the T-Third Street line south of the project area in conjunction with the opening of the Central Subway (anticipated in 2019) and addition of 24 trains to the line. Since the proposed project would enhance the existing transit system, no adverse effect to the transit system was identified.

Proposed Action: The proposed project would improve transit service and would not result in an adverse effect on transit.

3.12.6 Parking

Street parking in the project area is generally unrestricted (unmetered or unregulated). Table 3-1 presents a summary of the street parking supply, and the weekday, midday, and evening occupancies. There are a total of 95 street parking spaces in the project area. During the midday period, existing occupancy of street parking is high (94 percent), and about 31 percent of the spaces were occupied in the evening period. There are no public parking structures or lots nearby.

Table 3-1. Street Parking Supply and Utilization

Street	From	To	Supply	Midday (1-3PM) Occupancy	PM (6-8:30PM) Occupancy
Eighteenth Street	Third Street	Illinois Street	14	14 (100%)	8 (57%)
Nineteenth Street	Third Street	Illinois Street	17	17 (100%)	1 (6%)
Third Street	Eighteenth Street	Nineteenth Street	30	27 (90%)	7 (23%)
Illinois Street	Eighteenth Street	Nineteenth Street	34	31 (91%)	13 (38%)
Total			95	89 (94%)	29 (31%)

Source: 2290-2298 Third Street Transportation Impact Study, September 4, 2012 (SF Planning Dept., 2012)

San Francisco does not consider parking supply as part of the permanent physical environment and therefore does not consider changes in parking conditions to be environmental impacts. The San Francisco Planning Department acknowledges, however, that parking conditions

may be of interest to the public and the decision makers. Therefore, this section presents parking analysis for informational purposes.

Parking conditions are not static, as parking supply and demand vary from day to day, from day to night, from month to month, and seasonally. Hence, the availability of parking spaces (or lack thereof) is not a permanent physical condition, but changes over time as people change their modes and patterns of travel. The City of San Francisco also recognizes that the price of parking contributes to its availability and supply. The social inconvenience of parking deficits, such as having to hunt for scarce parking spaces, can have an environmental impact, such as increased traffic congestion at intersections, air quality impacts, safety impacts, or noise impacts caused by congestion. Parking may be removed on one side of Eighteenth and Nineteenth Streets as one of the three design options presented above; however, removing parking for the Loop project would have a small impact on the overall neighborhood supply.

Furthermore, the absence of a substantial supply of parking spaces both in the vicinity of the proposed project as well as city-wide, combined with available alternatives to automobile travel (e.g., transit service, taxis, bicycles, or travel by foot) and a relatively dense pattern of urban development, induces many drivers to seek and find alternative parking facilities, shift to other modes of travel, or change their overall travel habits.

Any such resulting shifts to transit service in particular would be in keeping with the city's *Transit First Policy*. The policy, established in the city's Charter Article 8A, §8A.115, provides that "parking policies for areas well served by public transit shall be designed to encourage travel by public transportation and alternative transportation." Alternative transportation includes bicycling and walking to destinations and transit stops.

The proposed project includes an alternative configuration for Illinois Street, which calls for the installation of six bulb outs on the east side of the street to accommodate light poles. These bulb outs could potentially cause a loss of parking on Illinois Street of up to six parking spaces. Parking analysis conducted by CHS Consulting in January 2013 for this EA, indicate that the unmet parking demand due to loss of parking spaces could potentially be accommodated in other parts of Illinois Street or along Third Street. This would potentially cause very high parking occupancy rate along Illinois Street and secondary traffic impacts of vehicle circulating for parking during weekdays midday.

Design option 2 discussed above would prohibit parking from 7 a.m. to 6 p.m. along Eighteenth and Nineteenth Streets, resulting in a loss of approximately 15 parking spaces along these streets. This loss could potentially cause drivers to circulate looking for parking spaces (potentially west of Third Street) and create secondary traffic impacts. However, as San Francisco does not consider parking supply as part of the permanent physical environment, the city does not consider changes in parking conditions to be environmental impacts. Parking deficits are considered to be social effects, rather than impacts on the physical environment. Therefore, no adverse effect on parking is anticipated to occur with this design option.

Proposed Action: The proposed project would result in no adverse effect on parking.

3.12.7 *Bicycle and Pedestrian Facilities*

Eighteenth and Nineteenth Streets have 12-foot sidewalks on both sides of the streets. Illinois Street has a 15-foot sidewalk on the west side of the street and none on the east side. Crosswalks and pedestrian signals are provided at the intersections of Eighteenth and Third Streets and Nineteenth and Third Streets. There are Class II bike lanes on Illinois Street in the northbound direction. In the project area, pedestrian and bicycle volumes are generally low throughout the day. No conflicts among pedestrians, motor vehicles, or bicycles were observed during field visits.⁷

Signals regulating vehicular, train, and pedestrian traffic would be installed at the intersections of Eighteenth, and Illinois Streets and Nineteenth and Illinois Streets. A curb ramp would be installed at the northwest corner of the intersection of Nineteenth and Illinois Streets. Approximately 128 feet of concrete sidewalk would be installed on the west side of Illinois Street and 100 feet of concrete sidewalk on the north side of Nineteenth Street, for a total of 228 feet. These improvements would help connect the existing sidewalk system and improve multi-modal transportation connections. Additionally, the Port of San Francisco plans to construct new sidewalks along the east side of Illinois Street to connect to the Bay Trail, which would further enhance the pedestrian infrastructure.

The proposed project would not eliminate the existing bike lanes on Illinois Street. Therefore, there would be no adverse effect on bicycle circulation.

Overall the proposed project is expected to benefit pedestrians and bicyclists within the project area by improving the transit system, providing improved pedestrian facilities, and facilitating the extension of pedestrian and bicycle trips.

Proposed Action: No adverse effect to bicycle and pedestrian facilities would result from the proposed project.

3.12.8 *Construction Effects on Transportation*

The construction of the proposed project would involve a number of elements, including the installation of trackways and the overhead contact system, intersection signalization, utility relocation, street resurfacing, and the construction of curb ramps and sidewalks.

The construction would last approximately four to five months. Construction related activities would typically occur Monday through Friday between 7:00 a.m. and 4 p.m. and would be in compliance with the San Francisco Noise Ordinance and the SFMTA Blue Book.

It is anticipated that the construction would include temporary closure of one or more travel lanes to facilitate construction of the trackways. A traffic control plan would be developed to minimize these temporary traffic and access impacts. Any temporary sidewalk or traffic lane closures would be coordinated with the city in order to minimize adverse effects on traffic.

7. Field observations were conducted for the 2290 – 2298 Third Street Transportation Impact Study (SF Planning Dept., 2012). An independent field observation was made by CHS Consulting on January 4, 2013 between 11:00 a.m. and 12:00 p.m.

Proposed Action: Due to their temporary and limited duration, construction would not create an adverse effect on traffic.

No Action: Not constructing the Loop would not be consistent with the transportation plans for the Mission Bay area that aim to improve public transit in the area.

3.13 Environmental Justice

This section of the EA discusses potential environmental justice issues associated with the Mission Bay Loop project and the no action alternative.

The methodology used in the environmental justice analysis follows Executive Order 12898, Title 49 CFR §21 and Title 23 CFR §200, DOT Order 5610.2(a), and FTA Circular 4703.1. Neighborhoods with a one-quarter mile radius around the proposed project and in the surrounding areas (Figure 3-1) are evaluated. Neighborhoods serviced by the T-Third line south of the project locations were also evaluated.

On February 11, 1994, President Clinton signed Executive Order 12898, Federal Actions to Address *Environmental Justice in Minority Populations and Low-Income Populations*. Executive Order 12898 requires the federal agencies named in the order, including the DOT, to identify and address disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, using all the statutory and regulatory authorities that already exist. The federal agency must ensure that its activities do not discriminate against persons or groups on the basis of race, national origin, or income.

The DOT published Departmental Order 5610.2, *Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, in April 15, 1997, which set out the agency's procedures for meeting the requirements of Executive Order 12898. In 2012, the DOT issued an update to the order. Order 5610.2(a) sets forth the current policy to consider environmental justice principles in all DOT programs, policies, and activities. It describes how the objectives of environmental justice will be integrated into planning and programming, rulemaking, and policy formulation.

The order defines an adverse effect as the totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects on minority populations and low-income populations; which may include, but are not limited to:

- bodily impairment, infirmity, illness, or death;
- air, noise, and water pollution and soil contamination;
- destruction or disruption of man-made or natural resources;
- destruction or diminution of aesthetic values;
- destruction or disruption of community cohesion or a community's economic vitality;

- destruction or disruption of the availability of public and private facilities and services;
- vibration;
- adverse employment effects;
- displacement of persons, businesses, farms, or non-profit organizations;
- increased traffic congestion, isolation, exclusion or separation of individuals within a given community or from the broader community; and
- the denial of, reduction in, or significant delay in the receipt of benefits of DOT programs, policies, or activities.

The order states that an adverse effect is disproportionately high on a minority and/or a low-income population if: 1) it is predominantly borne by a minority and/or a low-income population or 2) it would be suffered by the minority or and/or a low-income population in an appreciably more severe and greater magnitude than a non-minority and/or non-low income population.

The order sets forth steps to prevent disproportionately high and adverse effects to minority or low-income populations through environmental justice analyses conducted as part of Federal transportation planning and NEPA provisions. It also describes the specific measures to be taken to address instances of disproportionately high and adverse effects. In administering policies, programs, and activities subject to the requirements of NEPA and other statutes that involve human health or environmental matters, or interrelated social and economic effects, the DOT has committed to:

- Ensure that new investments and changes in transit facilities, services, maintenance, and vehicle replacement deliver equitable levels of service and benefits to minority and low-income populations;
- Avoid, minimize, or mitigate disproportionately high and adverse effects on minority and low-income populations; and
- Enhance public involvement activities to identify and address the needs of minority and low-income populations in making transportation decisions.

FTA's Circular 4703.1 builds on Order 5610.2(a), and provides further guidance for promoting principles of environmental justice in plans, projects, and activities that receive funding from FTA. It defines a minority population as "any readily identifiable group or groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed or transient persons such as migrant workers or Native Americans who will be similarly affected by a proposed DOT program, policy or activity."

Figure 3-1 shows the project area, census tracts within a one-quarter-mile and one-half-mile radius of the project site, and boundaries of block groups within tract 226, in which the Loop would be located. Table 3-2 lists general census information by population, race, and household income within a one-half-mile radius of the project site; while demographic information for the two block groups in tract 226 is provided in Table 3-3. Information derived from the census data suggests that well over 50 percent the population in the immediately affected community is non-minority and that household incomes in the area exceed the city average. None of the households in the block groups

or census tracts in the vicinity of the proposed Loop meet the criteria for low-income families (those with incomes below 150 percent of the poverty guidelines defined by the United States Department of Health and Human Services [78 Federal Register 5182]). The effects of the construction or operation of the proposed Loop would be borne by both non-minority and minority populations in the vicinity, with no disproportionate effect on the minority populations in the area. No disproportionate effect on a low-income population would result, since the income of the population in the vicinity of the proposed Loop is above the city's median.

Impacts on populations in census tracts not in the immediate location of the proposed Loop but those that extend south of the Loop along the T-Third Street corridor (Table 3-4) were also evaluated. Census tracts extending approximately one quarter-mile from the rail tracks were analyzed.⁸ Minority populations and populations with incomes below the city median household income are present in some of these tracts as shown on Figure 3-1. No tracts have populations that meet the criteria for low-income families as defined by the United States Department of Health and Human Services poverty guidelines. Table 3-4 lists the race and/or ethnicity of the residents of these tracts and the median household income.

Concerns regarding the frequency of service to these minority and low-income neighborhoods were raised during public outreach meetings summarized in Section 5.1. Frequency of service south of the Loop would not be adversely affected by the proposed Loop and after integration of the T-Third Street line with the Central Subway the service would improve.

Currently, trains on the T-Third line are diverted from the line at the Muni Metro East facility located south of the location of the proposed Loop, on Illinois and 25th Streets, a block from the T-Third Street line when additional service is needed to accommodate ridership toward downtown associated with special events or when a train needs to be removed from service. The Loop would allow a larger volume to trains to be diverted toward downtown than the volume that can be managed at the Muni Metro East facility. Additionally, the N-Judah line is expected to be extended to the Mission Bay Loop from its current terminus at Caltrain to increase service on the T-Third line prior to the integration of the T-Third line with the Central Subway.

Consequently, the project would not affect minority and lower-income communities in neighborhoods south of the project location, such as Bayview-Hunters Point, and Visitacion Valley. Service to these neighborhoods would increase with the opening of the Central Subway as the current 9-minute headways (defined as a measurement of the distance or time between vehicles in a transit system) decrease to 7.5 minutes by 2019. Transit service for residents of the Third Street corridor south of Mission Bay would also be enhanced after the opening of the Central Subway with this decrease in headways. The increase in train service would result in a potentially positive effect on minority and lower-income communities south of the project location by enabling residents south of the Loop better access to employment opportunities throughout the region without the high expense of an automobile, and without the need to spend several hours per day in transit.

8. Census tracts within approximately one-quarter mile of the T-Third Street rail line were evaluated. The area evaluated was based on the level of detail available, the size of the project, and the potential area affected.

Improved transit connections to the rest of the region would also reduce travel time to key destinations, major activity centers, shopping, recreation, and various other points.

Analysis of potential effects of the Loop on aesthetics, air quality and other resources as discussed in Sections 3.1 through 3.12 indicates that no adverse effects will result from the project.

Proposed Action: No minority or low-income populations are located within or near the project area; therefore no disproportionate adverse effect on environmental justice populations would occur during construction of the Loop. Operation of the Loop as proposed would not have disproportionately high and adverse effects on minority and low-income populations in the immediate area or areas south of the Loop serviced by the T-Third Street light rail line.

No Action: Not constructing the Loop would not change the existing condition and would therefore have no adverse effect on disadvantaged populations.

Table 3-2. General Census Information by Population, Race, and Household Income within a 1/2-Mile Radius of the Project Site

	San Francisco County Census Tract ¹				City of San Francisco
	226	227.02	607	614	
Tract Population	1,534	2,060	9,083	5,395	--
of One Race	1,472	1,954	8,661	5,085	767,576
% of One Race	96%	95%	95%	94%	95%
of Two or More Races	62	106	422	310	37,659
% of Two or More Races	4%	5%	5%	6%	5%
White ²	1,144	1,598	4,450	2,844	390,387
% White ²	75%	78%	49%	53%	48%
Black or African American ²	64	51	352	924	48,870
% Black or African American ²	4%	2%	4%	17%	6%
American Indian and Alaska Native ²	7	2	37	34	4,024
% American Indian and Alaska Native ²	0.46%	0.10%	0.41%	0.63%	0.50%
Asian ²	208	236	3,541	730	267,915
% Asian ²	14%	11%	39%	14%	33%
Native Hawaiian and Other Pacific Islander ²	14	0	7	132	3,359
% Native Hawaiian and Other Pacific Islander ²	0.91%	0%	0.08%	2%	0.42%
Hispanic or Latino ³	132	254	754	912	121,774
% Hispanic or Latino ³	9%	12%	8%	17%	15%
Other	35	67	274	421	53,021
% Other	2%	3%	3%	8%	7%
City Population	--	--	--	--	805,235
Median Income	\$125,952	\$124,038	\$104,545	\$72,143	\$71,745
Average Household Size	1.83	2.05	1.83	2.29	2.26
Federal Household Size-based Poverty Guideline ⁴	\$15,510	\$15,510	\$15,510	\$15,510	11% ⁵
Is the Tract Below Federal Poverty Guideline?	No	No	No	No	--

Notes:

1. See Figure 3-1 for tract locations. Tract numbers are from 2010 US Census
 2. Includes persons reporting only one race
 3. Hispanics may be of any race and are also included in applicable race categories
 4. Poverty guidelines for a household size of two from the 2013 Poverty Guidelines for the 48 Contiguous States and the District of Columbia table published by the United States Department of Health and Human Services (78 Federal Register 5182)
 5. City-wide poverty rate based on US Census American Community Survey 2005-2009 data obtained from www.usa.com
- Source: Race and household size data from 2010 US Census; income based on data from US Census American Community Survey 2006-2010 obtained from www.usa.com

Table 3-3. General Census Information by Population, Race, and Household Income for Block Groups within Tract 226

Demographic Information	Block Group No. ¹	
	1	2
Block Group Population	631	903
White ²	463	681
% White ²	73%	75%
Black or African American ²	26	38
% Black or African American ¹	4%	4%
Native (American Indian, Alaska Native, Hawaiian Native, etc. ²)	14	7
% Native (American Indian, Alaska Native, Hawaiian Native, etc. ²)	2%	0.78%
Asian ²	91	117
% Asian ²	14%	13%
Hispanic or Latino ^{2,3}	44	88
% Hispanic or Latino ^{2,3}	7%	10%
of One Race, Other ²	15	20
% of One Race, Other ²	2%	2%
of Two or More Races	22	40
% of Two or More Races	3%	4%
Median Income	\$127,440	\$121,756
Average Household Size	1.8	1.86
Federal Household Size-based Poverty Guideline ⁴	\$15,510	\$15,510
Is the Block Group Below Federal Poverty Guideline?	No	No

Notes:

1. See Figure 3-1 for block group locations in Tract 226
2. Includes persons reporting only one race
3. Hispanics may be of any race and are also included in applicable race categories
4. Poverty guidelines for a household size of two from the 2013 Poverty Guidelines for the 48 Contiguous States and the District of Columbia table published by the United States Department of Health and Human Services (78 Federal Register 5182)

Source: Block group, race and household size data from 2010 US Census; income based on data from US Census American Community Survey 2006-2010 obtained from www.usa.com

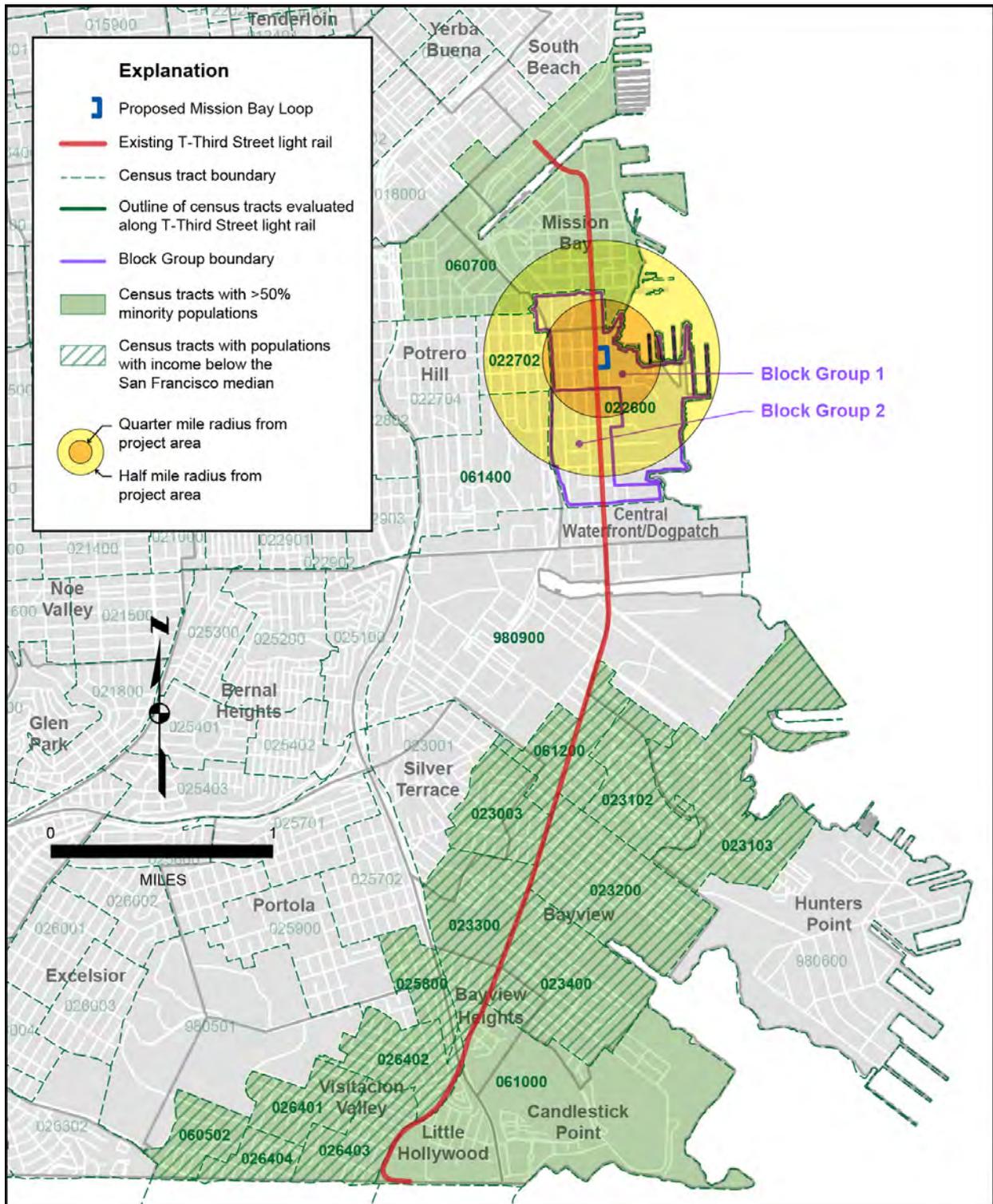
Table 3-4. Summary of Race and Household Income Distribution for Population Along the T-Third Rail Line

San Francisco County Census Tract(s) ¹	Total pop.	Hispanic or Latino ²	White ³	Black or African American ³	American Indian and Alaska Native ³	Asian ³	Native Hawaiian and Other Pacific Islander ³	Other	Two or More Races	Median Household Income
226	1,534	9%	75%	4%	0.46%	14%	0.91%	2%	4%	\$125,952
227.02	2,060	12%	78%	2%	0.10%	11%	0.00%	3%	5%	\$124,038
230.03	4,093	24%	13%	25%	0.90%	42%	0.34%	15%	4%	\$76,406
231.02	3,478	16%	9%	62%	0.66%	13%	0.78%	9%	5%	\$26,987
232	4,582	39%	13%	40%	1%	14%	1.27%	24%	6%	\$50,156
233	2,624	21%	8%	11%	0.80%	64%	0.38%	12%	4%	\$66,250
234	3,660	33%	10%	34%	0.38%	20%	5.19%	24%	7%	\$36,544
258	1,960	22%	18%	8%	0.36%	57%	0.15%	12%	4%	\$46,250
264.02	4,118	21%	17%	10%	0.53%	56%	0.75%	12%	4%	\$59,625
264.03	4,140	16%	11%	5%	0.53%	70%	0.89%	9%	4%	\$48,125
607	9,083	8%	49%	4%	0.41%	39%	0.08%	3%	5%	\$104,545
610	3,610	16%	15%	13%	0.78%	55%	0.42%	10%	5%	\$92,958
612	4,089	37%	19%	32%	0.81%	22%	0.44%	21%	4%	\$43,293
614	5,395	17%	53%	17%	0.63%	14%	2.45%	8%	6%	\$72,143
9809	350	23%	61%	11%	0.29%	9%	0.57%	13%	5%	\$149,914
City of San Francisco	805,235	15%	48%	6%	0.50%	33%	0.42%	7%	5%	\$71,745

Note:

1. See Figure 3-1 for tract locations
2. Hispanics may be of any race and are also included in applicable race categories
3. Includes persons reporting only one race

Source: Tract and race data from 2010 US Census; income based on data from US Census American Community Survey 2006-2010 obtained from www.usa.com



Source: Tracts and block groups based on US Census Bureau 2010 Census. Race data based on US Census Bureau 2010 Census. Income data based on US Census American Community Survey 2006-2010 (obtained from www.usa.com).

Figure 3-1. Race and income distribution for tracts along the T-Third Street rail line



Source: Weiss Associates. January 2013

Figure 3-2. View of Eighteenth and Illinois Streets looking north on Illinois Street



Source: Weiss Associates. January 2013

Figure 3-3. View of Eighteenth Street facing west toward Third Street from the corner of Eighteenth and Illinois Streets



Source: Weiss Associates. January 2013

Figure 3-4. View of Illinois Street from corner of Eighteenth and Illinois Streets facing northeast



Source: Weiss Associates. January 2013

Figure 3-5. View of Nineteenth and Illinois Streets facing south on Illinois Street



Source: Weiss Associates. January 2013

Figure 3-6. View of Nineteenth Street towards Third Street facing west



Source: Weiss Associates. January 2013

Figure 3-7. View of Nineteenth Street toward Illinois Street facing east

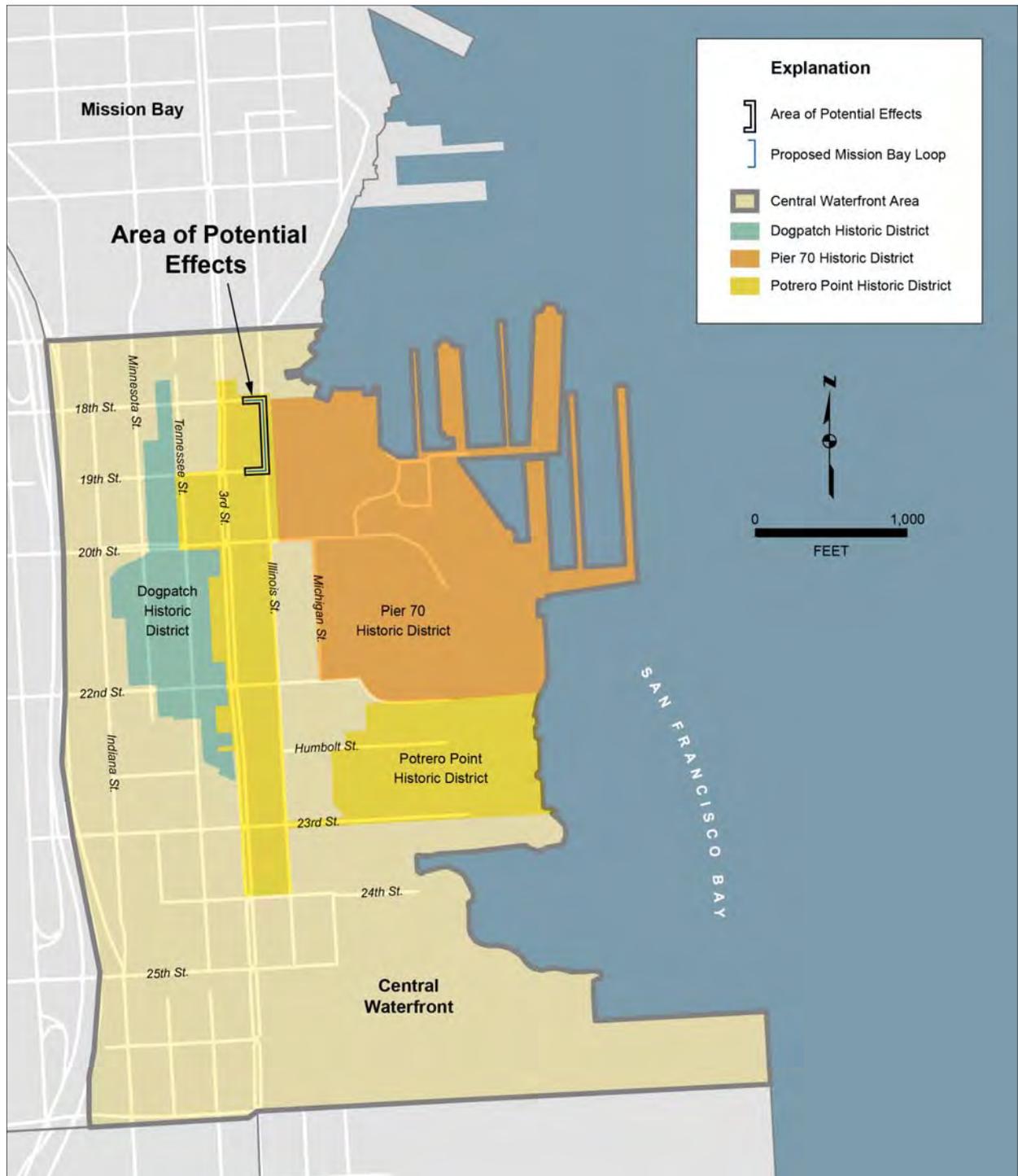


Figure 3-8. Area of Potential Effects



Source: data.sfgov.org.

Figure 3-9. Project vicinity and surrounding neighborhoods



Source: Port of San Francisco, Pier 70 Preferred Master Plan (Port of SF, 2012)

Figure 3-10. Recreation areas (parks and open space) planned for Pier 70 at the Port of San Francisco

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4. OTHER CONSIDERATIONS

4.1 Growth and Secondary Effects

Under NEPA, federal agencies preparing an EA must consider indirect effects of the proposed action, including growth-inducing affects and other effects related to induced changes in the pattern of land use, population density, or growth rate (40 CFR §1508.8). Growth can be induced in a number of ways, including the elimination of obstacles to growth, or through the stimulation of economic activity within the region. The discussion of removal of obstacles to growth relates directly to the removal of infrastructure limitations or regulatory constraints that could result in growth.

In general, a project may foster spatial, economic, or population growth in a geographic area if it meets any one of the criteria identified below:

- The project removes an impediment to growth (e.g., the establishment of an essential public service, or the provision of new access to an area);
- The project results in the urbanization of land in a remote location (leapfrog development);
- The project establishes a precedent-setting action (e.g., a change in zoning or general plan amendment approval); or
- Economic expansion or growth occurs in an area in response to the project (e.g., changes in revenue base, employment expansion, etc.).

If a project meets any one of these criteria, it may be considered growth inducing. Generally, growth inducing projects are either located in isolated, undeveloped, or underdeveloped areas, necessitating the extension of major infrastructure such as sewer and water facilities or roadways, or encourage premature or unplanned growth. The Mission Bay Loop would be improving transit service in a predominately built-out urban environment. The project would be expected to gradually increase levels of service and flexibility on the existing T-Third Street light rail line by 2019 when the Central Subway project is complete.

The project would not be expected to stimulate additional or higher intensity development over what is already planned for the immediate project area and surrounding areas. Further the project would help accommodate transit needs associated with presently planned development projects in the City of San Francisco. As a result, the proposed action would not result in significant growth-inducing effects.

4.2 Cumulative Effects

NEPA states that federal agencies preparing an EA must consider the cumulative effects that result from incremental impacts of a proposed action and other actions. For the purpose of NEPA,

cumulative effects are defined in 40 CFR 1508.7 as “impact(s) on the environment which results from the incremental impact of the action (project) when added to other past, present, and reasonably foreseeable future actions.”

In addition to redevelopment of the Pier 70 area by the Port of San Francisco, planned projects in the general vicinity of the Mission Bay Loop include improvements to street elements across the Mission Bay area at UCSF Medical Center, Mission Bay Tech/Biotech Corridor, traffic circle connectors, as well as the Mission Bay/UCSF Hospital Multimodal Transportation Project undertaken by the SFMTA (Reiskin, 2012).

These projects may contribute to cumulative impacts during construction including traffic disruption such as lane closures and detours, and construction-related noise and air quality effects. These impacts would be temporary and do not result in a cumulative adverse effect.

Air Quality: As noted in section 3.3, no substantial effects related to air quality are expected from the proposed action, including increases in air pollutant emissions or deterioration of ambient air quality. Air quality effects related to growth and non-transportation projects can be expected to contribute to long-term cumulative effects. Other proposed projects in the area, including residential developments and the planned redevelopment of Pier 70, may produce adverse air quality effects. However, operation of additional trains on the Mission Bay Loop would alleviate air quality effects of currently approved development in the area by improving and increasing zero-emissions transportation options. As a result, no cumulative effects on air quality would occur from implementation of the Loop project.

Land Use: The acceleration of change in land use in the southeastern quadrant of San Francisco was identified as a potential effect of the Third Street Light Rail Project. Such land use changes would be reviewed for consistency with the adopted goals, policies, and objectives of the Central Waterfront Area Plan; would improve rather than degrade the existing character of the area; and were consequently deemed not to result in any adverse effects.

Noise: Existing development in the project vicinity is residential, industrial, and commercial/retail warehousing operations. Planned and possible future commercial and residential development in the Mission Bay area may contribute cumulatively to noise in the project vicinity. Contribution of the proposed action to cumulative noise impacts within the project vicinity would be non-substantial. Mitigation of project specific and cumulative impacts would be the responsibility of future developers as well as the City and County of San Francisco. See section 3.7 for a discussion of specific noise impacts related to the Loop project.

Transportation: The purpose of the proposed action is to increase the levels of transit service, reliability, and flexibility to the existing Third Street light rail line through the addition of a turn-around loop. Further, the project site is located in a highly developed urban area with and extensive existing transportation network. Analysis of the potential impacts of the project on transportation concluded that the proposed action would not contribute to cumulative transportation impacts.

The benefits of increased public transit service and reliability are anticipated to outweigh the need to convert the project area to other uses in the future. As a result, there would be a low potential

for substantial contributions to cumulative impacts upon resources, ecosystems, and human communities as the result of the proposed action.

4.3 Irretrievable and Irreversible Commitment of Resources

A review of irreversible and irretrievable commitment of resources is required under NEPA. Implementation of the proposed action involves a commitment of a range of natural, physical, human, and fiscal resources.

Land used in the construction of the Loop is considered to require an irreversible commitment during the time period that the land is used for the transportation system. However, if a greater need arises for use of the land or if the transportation system is no longer needed, the land can be converted to another use. At present, there is no reason to believe such a conversion will ever be necessary or desirable. The Loop project would be constructed within an existing transportation right-of-way that is already used for transportation use. As a result, no change in the commitment of this resource would occur.

Additionally, labor and natural resources would be used in the fabrication and preparation of construction materials and in constructing the Loop.

Under the proposed action, fossil fuels, labor, and construction materials such as cement, aggregate, and steel would be expended in construction the Loop. The commitment of energy and labor for construction would also be irretrievable and irreversible. These resources are not in short supply, and their use would not have an adverse effect on continued availability of these resources. Any construction would require an expenditure of both state and federal funds, which are not retrievable.

The commitment of these non-renewable resources is based on the premise that area residents would benefit from the improved quality of the transportation system. Benefits include improved accessibility to public transit, reduced vehicle miles traveled, time savings, and greater availability of services. The benefits are anticipated to outweigh the commitment of these resources.

No Action: No commitment of resources would occur if the Loop is not built.

4.4 Local Short-Term Impacts and Resource Uses Verses Long-Term Productivity

A review of the balance between short-term impacts and resources used and long-term productivity of resources within the project area is required under NEPA (40 CFR §1502.16). Short-term would be considered for the duration of the construction period, and long-term would be for the life of the project (30 years). Long-term productivity refers to sustainable uses of existing environment and increases in environmental quality such as low noise levels, clean air, pure water, and low levels of other kinds of pollutants.

Short-term local impacts include disruption of community or economic activities during construction, minor noise increase on Eighteenth, Nineteenth, and Illinois Streets, and changes in the transportation flow due to new signalization of intersections.

The Mission Bay Loop would be constructed in an area historically and currently used for transportation; rail operations would improve levels of service in the project area as well as other segments of the transportation system, increase operational safety and efficiency, and make future light rail service more feasible and accessible.

Transportation improvements resulting from the construction of the Loop are based on state and local comprehensive planning, which considers present and future transportation needs within the context of present and future land use development. The local short-term impacts and use of resources associated with the proposed action are consistent with the maintenance and enhancement of long-term productivity for the city.

5. CONSULTATION AND COORDINATION

The Mission Bay Loop project was presented to various agencies at the federal, state, and regional/local levels as part of the *EIS/EIR to the Third Street Light Rail Project* approved by the City and County of San Francisco Planning Department. Presentations, community meetings, and information gathering sessions were conducted to identify concerns, potential solutions, and anticipated environmental effects of the T-Third Street light rail. Information about the proposed action and various alternatives was presented.

Additional outreach to the community was conducted in late 2012 and early 2013.

Contact was made with the following agencies:

- City and County of San Francisco Planning Department
- City and County of San Francisco Department of Public Works
- California State Historic Preservation Office
- Bay Area Air Quality Management District

Outreach and early coordination allowed the SFMTA to identify issues and concerns to be incorporated in the environmental assessment process.

5.1 Public Meetings

The SFMTA held a public meeting at 654 Minnesota Street on February 11, 2013 to determine if there were any significant concerns or issues from the surrounding community with regards to the proposed action. Notice of the meeting was mailed to over 400 owners of residential and commercial units with one-quarter of a mile of the proposed location of the Loop. A copy of the notice provided to area residents and business owners is included in Appendix E. Information about the proposed meetings was also posted on SFMTA's website (<http://www.sfmta.com/cms/mproj/MissionBayLoop.htm>), the Potrero Dogpatch Merchants Association's website (www.pdma-sf.org), on San Francisco Eastern Neighborhoods United Front's Facebook page, the SF Streets blog (<http://sf.streetsblog.org>) and other social media outlets.

A Cantonese and Mandarin-speaking interpreter was present and translation into Spanish was available at the February 11, 2013 meeting. SFMTA staff presented information about the project scope, construction, operation, service improvements, and integration with long-term transportation projects to those attending the 90-minute meeting. About 30 people were in attendance; they asked questions and provided feedback about the proposed project. Eight written comments were received. The discussion centered on the short-term and long-term service implications of the Loop and whether the Loop would accommodate desired service improvements, including service to Pier 70 and Mission Bay and more reliable service to the Sunnydale area.

Specific questions and/or comments included clarification regarding the volume of trains that would service the Sunnydale area, whether riders on the southbound T-Third rail line would be required to disembark at the Loop and board another train to Sunnydale, how many trains would use the Loop on a daily basis, how the Loop would be used prior to the launch of the Central Subway, whether historic cars would be able to travel on the Loop to access Pier 70 and Dogpatch Historic Districts, whether a train platform would be constructed as part of the project, and whether relocation of the Loop to a more southern location was a better option that may avoid train-related noise and vehicle access to garages at residences on Eighteenth and Nineteenth Streets.

Questions regarding the Loop's service hours were raised and a desire for longer service hours was expressed by some. Positive feedback regarding service improvements resulting from the Loop project was also provided.

The SMFTA staff presented detailed information about integration of the Loop with other upcoming and long-range transportation projects, including the option to create additional turn-around locations south of the proposed Loop, the need for the Loop to allow flexibility in long-range planning on and around the T-Third Line, the planned route change on the T-Third line that will route the trains directly to downtown instead of via The Embarcadero and near term improvements in signalization in the Central Waterfront area.

The SFMTA considered the input obtained from the public in developing the proposed action. Comments that related to the larger transportation network are being considered as part of the ongoing transportation service plan and other improvements to which those comments related. Some of those present articulated various long-term improvements desired for the Central Waterfront neighborhood. The SFMTA encouraged those persons to work with the agency in developing long-term improvements.

5.2 Notice of Availability and Distribution List

A Notice of Availability of the EA dated May 6, 2013 was sent to the distribution list provided in Appendix F.

6. LIST OF PREPARERS

United States Department of Transportation

Federal Transit Administration

201 Mission Street, Room 2210
San Francisco, California 94105

Raymond Sukys, Director, Office of Planning and Program Development
Alexander Smith, Community Planner
Mary Nguyen, Environmental Protection Specialist

San Francisco Municipal Transportation Agency

1 South Van Ness Ave, 7th Floor
San Francisco, California 94103

Edward D. Reiskin, Director of Transportation
Peter Brown, Project Manager
Sustainable Streets-Strategic Planning & Policy
415.701.5485 | peter.brown@sfmta.com

Consultants

Weiss Associates

2200 Powell Street, Suite 925
Emeryville, California 94608

Robert Devany, Principal
Scott Bourne, Program Manager
Agata Sulczynski, Senior Project Manger
Jessica Mosby, Administrative Assistant

Ward & Associates

Environmental Consultants
870 Market Street, Suite 1044
San Francisco, California 94102

William Ward, Principal
Dennis Kearney, Senior Project Manager
Mike Wood, Senior Biologist

CARDNO ENTRIX

2300 Clayton Road
Concord, California 94520

Kimberly Demuth, MS, Technical Director Cultural Resources, Vice President
Jennifer Flathman, MS, Project Architectural Historian
Rachel Tamigniaux, MSc, Project Coordinator
Jennifer M. Ferris, MA Project Archaeologist

CHS Consulting Group

30 Sutter Street, Suite 468
San Francisco, California 94104

Chi-Hsin Shao, Principal Transportation Planner
Migi Lee, Transportation Planner

Charles M. Salter Associates, Inc.

130 Sutter Street, Floor 5
San Francisco, California 94104

Eric A. Yee, Noise and Vibration Analysis

7. REFERENCES

- Ahmadi, Rana. Memorandum titled “Environmental Review for the Mission Bay Loop Project” sent to Monica Pereira on October 3, 2012. San Francisco, California: San Francisco Municipal Transportation Agency.
- Association of Bay Area Governments (ABAG), 2008. *San Francisco Bay Area Housing Needs Plan, 2007-2014*. <http://www.abag.ca.gov/planning/pdfs/SFHousingNeedsPlan.pdf>
- Bay Area Air Quality Management District (BAAQMD), 2006. *Bay Area 2005 Ozone Strategy, Volume 1*. California: Bay Area Air Quality Management District.
- BAAQMD, 2012. *California Environmental Quality Act, Air Quality Guidelines*. California: Bay Area Air Quality Management District.
- California Department of Transportation (Caltrans), 2012. “Officially Designated Scenic Highways.” Last updated July 11, 2012. <http://www.dot.ca.gov/hq/LandArch/scenic/schwy.htm>.
- Carey & Co. Inc, 2011. “Union Iron Works National Register Nomination.” Accessed March 08, 2013. <http://www.sf-port.org/Modules/ShowDocument.aspx?documentid=1085>.
- City and County of San Francisco (City and County of SF). *General Plan*. http://sf-planning.org/ftp/General_Plan/index.htm.
- City and County of SF, 2007. *Eastern Neighborhoods Draft Environmental Impact Report - Rezoning and Area Plans*, June 30.
- City of South San Francisco, 2009. *General Plan*. <http://www.ssf.net/index.aspx?NID=360>.
- United States Department of Transportation (DOT), 2011. *Transit Safety Management and Performance Measurement Volume 1: Guidebook*. United States: U.S. Department of Transportation Federal Transit Administration Office of Safety and Security.
- Federal Transit Administration (FTA), 1998a. *Third Street Light Rail Project, Draft Environmental Impact Statement/Draft Environmental Impact*. San Francisco, California: City of San Francisco Planning Department.
- FTA, 1998b. *Third Street Light Rail Project, Final Environmental Impact Statement/Final Environmental Impact Report* (City of San Francisco Case No. 96.281E, State Clearinghouse No. 96102097). San Francisco, California: City of San Francisco Planning Department.

- FTA, 1998c. *Third Street Light Rail Project, Programmatic Agreement* (Reference FTA980703A). San Francisco, California: San Francisco Public Transit Department.
- FTA, 2006. *Transit Noise and Vibration Impact Assessment* (No. FTA-VA-90-1003-06). United States: Office of Planning and Environment, Federal Transit Administration.
- FTA, 2013. "Safety & Security." Last updated 2013. <http://www.fta.dot.gov/about/12419.html>.
- Metropolitan Transportation Commission (MTC), 2008. *San Francisco Bay Area Regional Transportation Emergency Management Plan Baseline Operating Plan*. Oakland, CA: Metropolitan Transportation Commission.
- MTC, 2009. *Transportation 2035 Plan for the San Francisco Bay Area*. Oakland, CA: Metropolitan Transportation Commission.
- National Park Service (NPS), 2013. National Historic Landmarks Program. Accessed January 23, 2013. <http://tps.cr.nps.gov/nhl/result.cfm>.
- Northgate Environmental Management, Inc. (Northgate), 2009. *Geotechnical Investigation Report, Mission Bay Loop Extension*. San Francisco, California: San Francisco Department of Public Works.
- Port of San Francisco (Port of SF), 2010. *Pier 70 Preferred Master Plan*. San Francisco, California: Port of San Francisco.
- Port of SF, 2012. "Draft Master Plan." Last updated 2013. <http://www.sfport.com/cranecovepark>.
- Reiskin, Edward. Memorandum titled "SFMTA Response, With Related Materials, to Leslie Rogers, Letter of November 26, 2012" sent to Leslie Rogers (Regional Administrator, Federal Transit Administration Region IX) on December 19, 2012. San Francisco, California: San Francisco Municipal Transportation Agency.
- San Francisco Department of the Environment (SF Dept. of the Environment), 2004. *Climate Action Plan for San Francisco*. San Francisco, California: San Francisco Public Utilities Commission.
- San Francisco Municipal Code (SF Municipal Code), 2013. *Environment Code* (last amended by Ordinance 245-12, File No. 121029). San Francisco, CA: City and County of San Francisco.
- San Francisco Municipal Transportation Agency (SFMTA), 2007. *San Francisco Charter Section 8A.115, Transit-First Policy*. San Francisco, California: San Francisco Municipal Transportation Agency.
- SFMTA, 2011. *Third Street Light Rail Phases 1+ 2. 2018-2030 Service Integration Plan For Operations, Fleet, and Financial Planning*.

- SFMTA, 2012a. *Departmental Climate Action Plan Fiscal Year 2010-11*. San Francisco, California: San Francisco Municipal Transportation Agency.
- SFMTA, 2012b. *2010-11 San Francisco Collisions Report*. San Francisco, California: San Francisco Municipal Transportation Agency.
- San Francisco Planning Department, Central Waterfront Advisory Committee, San Francisco Architectural Heritage, Dogpatch Neighborhood Association, and Page and Turnbull (SF Planning Dept. et. al.), 2001. *Central Waterfront Cultural Resources Survey, Summary Report and Draft Context Statement*. Rohnert Park, California: Northwest Information Center.
- City of San Francisco Planning Department (SF Planning Dept.), 2001. *Central Waterfront District Record*. Rohnert Park, California: Northwest Information Center.
- SF Planning Dept., 2008a. *Potrero Point (Common Name: Central Waterfront) Historic District Record*. San Francisco, California: City of San Francisco Planning Department.
- SF Planning Dept., 2008b. *Eastern Neighborhoods Rezoning and Area Plans Final Environmental Impact Report* (Case No. 2004.0160E, State Clearinghouse No. 2005032048). San Francisco, California: City of San Francisco Planning Department.
- SF Planning Dept., 2011a. *Certificate of Determination, Exemption from Environmental Review* (Case No.: 2010.0094E, 720 & 740 Illinois Street and 2121 Third Street Project). San Francisco, California: City of San Francisco Planning Department.
- SF Planning Dept., 2011b. *San Francisco Neighborhoods Socio-Economic Profiles, 2005-2009 American Community Survey*. San Francisco, California: City of San Francisco Planning Department.
- SF Planning Dept., 2012. *2290 – 2298 Third Street Residential Retail Project Transportation Impact Study* (Case Number 2005.0408E). San Francisco, California: City of San Francisco Planning Department.
- SF Planning Dept., 2013. “Central Waterfront Area Plan” *San Francisco General Plan, 2008*. Last updated 2013. http://www.sf-planning.org/ftp/General_Plan/Central_Waterfront.htm#CW_HIS.
- United States Department of Health and Human Services, 2013, *Annual Update of the HHS Poverty Guidelines*. Notice. 78 Federal Register 5182, Pages 5182 -5183.

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APPENDIX A

PHOTOGRAPHS OF ALTERNATIVE LOOP LOCATIONS CONSIDERED

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Table A. Alternative loop locations considered and rejected

Alternate Location	Between Streets		Photograph Number
Third Street	Mariposa Street	(Intersection)	1
Mariposa Street	Third Street	Tennessee Street	2
Tennessee Street	Mariposa Street	Eighteenth Street	3
Eighteenth Street	Third Street	Tennessee Street	4
Eighteenth Street	Tennessee Street	Indiana Street	5
Tennessee Street	Eighteenth Street	Nineteenth Street	6, 7, 8, 9
Nineteenth Street	Third Street	Tennessee Street	10,11,12
Twentieth Street	Third Street	(Intersection)	13, 14
Twentieth Street	Third Street	Tennessee Street	15
Tennessee Street	Twentieth Street	Nineteenth Street	16
Illinois Street	Nineteenth Street	Twentieth Street	17, 18, 19
Twentieth Street	Third Street	Illinois Street	20, 21
Twenty-Second Street	Tennessee Street	Third Street	22
Twenty-Second Street	Tennessee Street	Dead End	23
Twenty-Second Street	Illinois Street	Third Street	24
Twenty-Second Street	Illinois Street	Twenty-Third Street	25, 26
Twenty-Third Street	Illinois Street	The Bay	27
Twenty-Fourth Street	Illinois Street	The Bay	28, 29
Twenty-Fourth Street	Michigan Street	The Bay	30
Tennessee Street	Twenty-Third Street	Twenty-Fourth Street	31, 32
Tennessee Street	Twenty-Fourth Street	Twenty-Fifth Street	33, 34, 35, 36
Twenty-Fourth Street	Tennessee Street	Third Street	37
Twenty-Fourth Street	Tennessee Street	Minnesota Street	38

Source: SFMTA



Photograph No. 1: Intersection of Third Street and Mariposa Street



Photograph No. 2: Mariposa Street between Third Street and Tennessee Street



Photograph No. 3: Tennessee Street between Mariposa Street and Eighteenth Street



Photograph No. 4: Eighteenth Street between Third Street and Tennessee Street



Photograph No. 5: Eighteenth Street between Tennessee Street and Indiana Street



Photograph No. 6: Tennessee Street between Eighteenth Street and Nineteenth Street



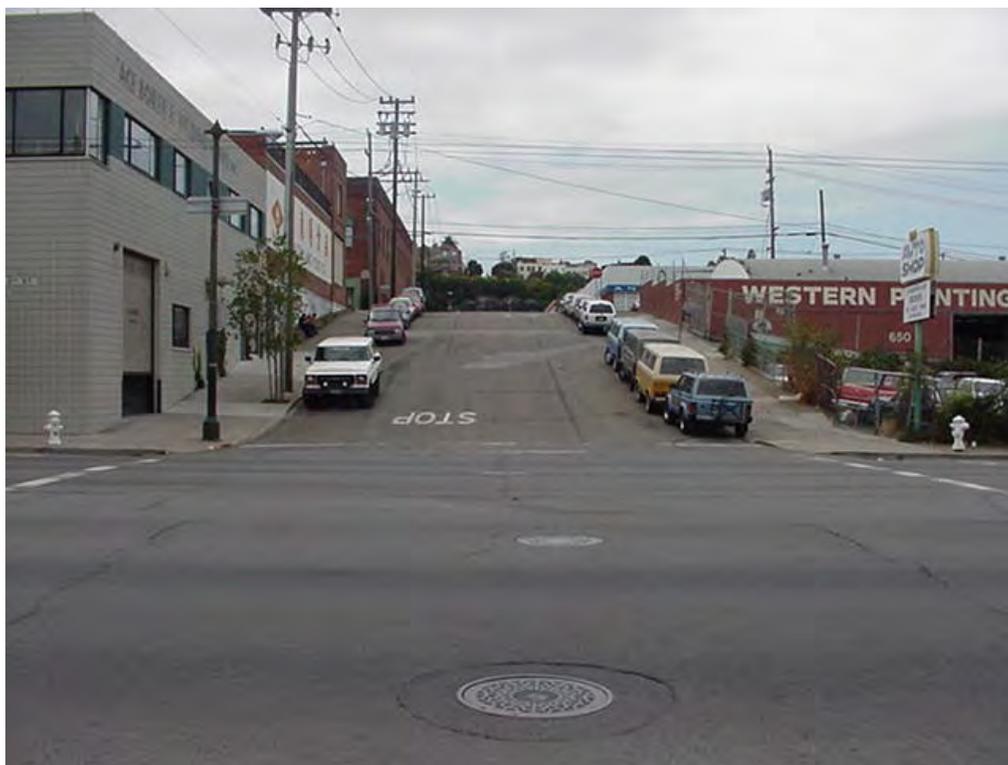
Photograph No. 7: Tennessee Street between Nineteenth Street and Eighteenth Street



Photograph No. 8: Tennessee Street between Nineteenth Street and Eighteenth Street



Photograph No. 9: Tennessee Street between Nineteenth Street and Eighteenth Street



Photograph No. 10: Nineteenth Street between Third Street and Tennessee Street



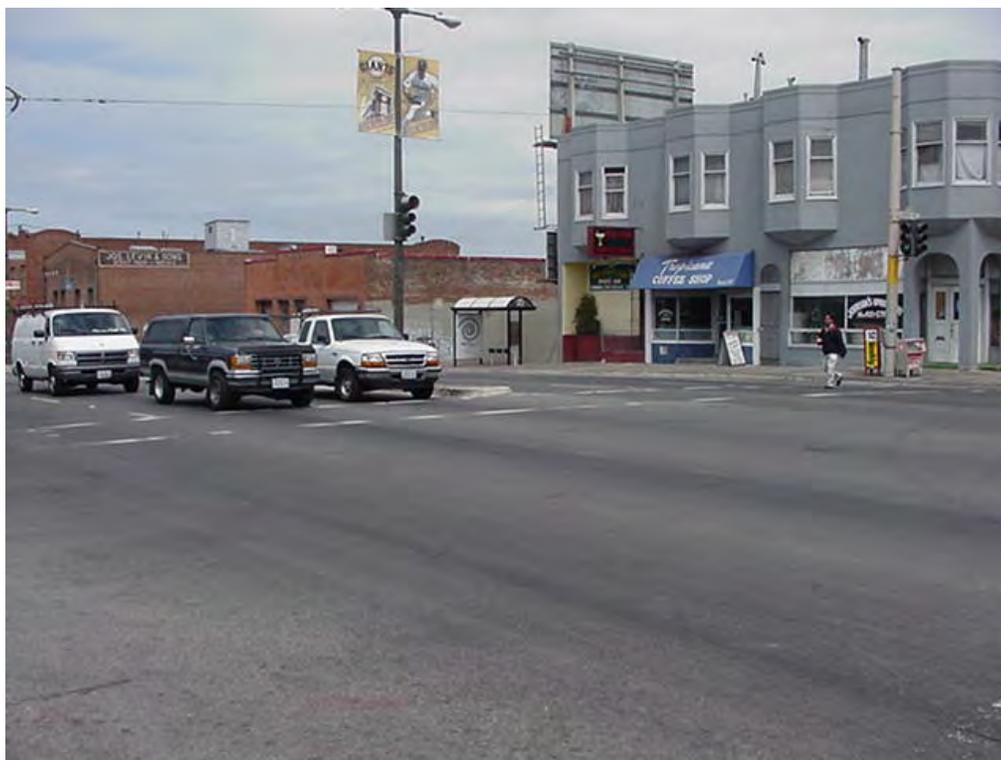
Photograph No. 11: Nineteenth Street between Third Street and Tennessee Street



Photograph No. 12: Nineteenth Street between Third Street and Tennessee Street



Photograph No. 13: Intersection at Twentieth Street and Third Street



Photograph No. 14: Intersection at Twentieth Street and Third Street



Photograph No. 15: Twentieth Street between Third Street and Tennessee Street



Photograph No. 16: Tennessee between Nineteenth Street and Twentieth Street



Photograph No. 17: Illinois Street between Nineteenth Street and Twentieth Street



Photograph No. 18: Illinois Street between Nineteenth Street and Twentieth Street



Photograph No. 19: Illinois Street between Nineteenth Street and Twentieth Street



Photograph No. 20: Twentieth Street between Illinois Street and Third Street



Photograph No. 21: Twentieth Street between Illinois Street and Third Street



Photograph No. 22: Twenty-Second Street between Tennessee Street and Third Street



Photograph No. 23: Twenty-Second Street between Tennessee Street and dead end



Photograph No. 24: Twenty-Second Street between Illinois Street and Third Street



Photograph No. 25: Twenty-Second Street (E/S) between Illinois Street and Twenty-Third Street



Photograph No. 26: Twenty-Second Street (W/S) between Illinois Street and Twenty-Third Street



Photograph No. 27: Twenty-Third Street between Illinois Street and San Francisco Bay



Photograph No. 28: Twenty-Fourth Street between Illinois Street and San Francisco Bay



Photograph No. 29: Twenty-Fourth Street between Illinois Street and San Francisco Bay



Photograph No. 30: Twenty-Fourth Street between Michigan Street and the San Francisco Bay



Photograph No. 31: Tennessee Street between Twenty-Third Street and Twenty-Fourth Street



Photograph No. 32: Tennessee Street (E/S) between Twenty-Third Street and Twenty-Fourth Street



Photograph No. 33: Tennessee Street between Twenty-Fourth Street and Twenty-Fifth Street



Photograph No. 34: Tennessee Street between Twenty-Fifth Street and Twenty-Fourth Street



Photograph No. 35: Tennessee Street between Twenty-Fifth Street and Twenty-Fourth Street



Photograph No. 36: Tennessee Street between Twenty-Fourth Street and Twenty-Fifth Street



Photograph No. 37: Twenty-Fourth Street between Tennessee Street and Third Street



Photograph No. 38: Twenty-Fourth Street between Tennessee Street and Minnesota Street

APPENDIX B

BIOLOGICAL CONSTRAINTS ASSESSMENT

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WOOD BIOLOGICAL CONSULTING, Inc.

65 Alta Hill Way
Walnut Creek, CA 94595
Tel: (925) 899-1282
Fax: (925) 939-4026
e-mail: mike@wood-biological.com
www.wood-biological.com

January 28, 2013

Subject: Biological Constraints Assessment, Mission Bay Loop, Third Street Light Rail Project, San Francisco

This report presents an evaluation of potential biological constraints to the proposed extension of the Third Street Light Rail Project in the City and County of San Francisco. An *Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the Third Street Light Rail Project* was completed and approved in 1999 by the Federal Transit Administration (FTA) and the City of San Francisco and construction of the light rail project began. Due to budget constraints, a portion of the Third Street Light Rail Project, the Mission Bay Loop, was not completed. Because approximately 12 years have passed since the *EIS/EIR for Third Street Light Rail Project* was completed, the FTA has prepared this EA to identify and evaluate any conditions that might have changed after 1999 that could potentially result in significant environmental impacts from construction of the Mission Bay Loop.

This report has been prepared to address concerns regarding the potential for adverse effects on special-status biological resources. Biological constraints consist of federally and state-listed endangered and rare species and their habitats, other special-status species regulated under state or local laws or ordinances, wetlands and other riparian habitats, and other special-status plant communities.

The objective of this report is to verify that the proposed project would have no significant adverse effects on special-status species or habitats.

PROJECT DESCRIPTION

In 2003, the San Francisco Municipal Transportation Agency (SFMTA) began service on the T-Third Street line between Embarcadero and Sunnysdale. The new Mission Bay Loop would allow trains on the T-Third Street line to turn around via connection from Third Street to

Eighteenth, Illinois, and Nineteenth Streets in order to increase service frequency to downtown. The project would improve transit service in the Mission Bay, SOMA, and Chinatown neighborhoods once the Central Subway is complete (2019). Transit service for residents of the Third Street corridor south of Mission Bay would also be enhanced.

The proposed project location is within the area of San Francisco known as the Central Waterfront area, just east of Potrero Hill and south of SOMA. The project site lies immediately adjacent to Pier 70 at the Port of San Francisco.

METHODS

This evaluation of potential biological constraints is based on a review of aerial photographs, and a single reconnaissance-level site inspection. The findings for this biological constraints assessment are based on the following:

- 1) database queries for the San Francisco North, Hunters Point, San Francisco South, Point Bonita, San Rafael, Oakland West, Richmond, San Quentin, and San Mateo 7.5-minute USGS quadrangles maintained by the California Natural Diversity Database (CNDDDB 2012), California Native Plant Society (CNPS 2013), and U.S. Fish and Wildlife Service (USFWS 2011) (see Attachment A);
- 2) an assessment of habitat types and surrounding land uses during a reconnaissance-level site inspection performed by biologist Michael Wood on January 27, 2013.

Additional information regarding special-status and common plant and wildlife species was obtained by review of published lists and floras (CDFG 2011 a,b; CDFG 2012 a,b; Howell, *et al.* 1958; Wood 2012; Wood, in prep.). Nomenclature for common, widespread plants and animals conforms to Baldwin, *et al.* (2012) and CDFG (2005), respectively; plant names have been updated to conform to the Jepson Online Interchange.¹ Nomenclature for special-status plants and animals conforms to CDFG (2012a and 2011a respectively).

SETTING

The study area is confined to a section of Third Street between 18th Street and 19th Street on the eastern edge of the City and County of San Francisco. The site is completely developed with a paved street, sidewalks, multi-story apartment buildings and commercial and industrial development adjacent to the Central Waterfront area and Pier 70. The only nearby green area is the 2.7-acre urban park known as Dogpatch Park, located approximately 850 feet southwest of the study area.

¹ Available online at <http://ucjeps.berkeley.edu/interchange.html>.

Illinois Street is a two-lane paved surface road with curb-side parking and sidewalks (in part). Pavement typically extends to the buildings fronting the street. The west side of the street includes paved and graveled parking areas and buildings; a graveled vacant lot separated from the east side of the street by a six foot-tall chain-link fence. At its nearest, the study area is approximately 300 feet west of the edge of San Francisco Bay and 3500 feet southeast from heavily industrialized Islais Creek. No remnants of natural habitats are present on site.

Onsite, the only vegetation includes planted ornamental street trees and a small amount of ruderal vegetation. Street trees on site include two southern magnolia trees (*Magnolia grandiflora*; ca 10' tall), and three European olive trees (*Olea europea*; ca 12' tall). The only other vegetation in the study area consists of patches of ruderal species (i.e., plants that colonize disturbed land from which all vegetation has been previously removed) on strips of unpaved ground and vacant lots. This vegetation consists of non-native herbaceous species including sweet fennel (*Foeniculum vulgare*), Bermuda buttercup (*Oxalis pescaprae*), annual bluegrass (*Poa annua*), pellitory (*Perietaria hespera*), burclover (*Medicago polymorpha*), cheeseweed (*Malva parviflora*), and white-stem filaree (*Erodium moschatum*).

In the southeastern waterfront area of San Francisco, as many as 29 bird species were recorded utilizing waterfront structures during the summer months in 2007 and 2008; nesting by five species was confirmed (Weeden and Lynes 2009). No successful rearing of chicks by these species was observed at Pier 70. These structures are approximately 1000 feet from the project site.

Bird species observed utilizing street trees and ruderal vegetation at the time of the present survey include house sparrow (*Passer domesticus*), rock pigeon (*Columba livia*), and European starling (*Sturnus vulgaris*). Adjacent structures such as the eaves of structures and adjacent cranes were inspected for evidence of nesting; no nest structures were observed. Rooftops, which may support nesting by western gull (*Larus occidentalis*) and Caspian tern (*Hydroprogne caspia*), were not inspected as part of this effort.

SPECIAL-STATUS BIOLOGICAL RESOURCES

Special-status plant and animal species are regarded as endangered, threatened, rare (or candidates for such listing) under the federal or State endangered species acts, as well as those listed as special by the California Department of Fish and Wildlife (CDFW)² and California Native Plant Society (CNPS). Special-status habitat types or classifications are those that receive regulatory protection, for example, under Section 404 of the Clean Water Act (CWA) or Section 1600 of the California Fish and Game Code (CFGC), those designated as Critical

² As of January 1, 2013, the Cal. Dept. of Fish and Game has been renamed the Cal. Dept. of Fish and Wildlife.

Habitat under Section 4(B)(2) of the Federal Endangered Species Act (FESA), and communities that are of limited distribution statewide or within a county or region.

Based on a review of the databases cited above, a total of 82 special-status plant species have been recorded from the nine 7.5-minute USGS quadrangles covering northern San Mateo County, San Francisco County, southern Marin County and western Contra Costa and Alameda counties (see Attachment A). Of these, 35 special-status plant species have been recorded from San Francisco County. Based on the lack of suitable habitat, there is no potential for occurrence of any special-status plant species within the study area.

Based on a review of the databases cited above, a total of 69 special-status animal species have been recorded from the nine 7.5-minute USGS quadrangles covering northern San Mateo County, San Francisco County, southern Marin County and western Contra Costa and Alameda counties (see Attachment A). Of these, 30 special-status animal species have been recorded from San Francisco County. In addition, numerous species of migratory birds protected under the Migratory Bird Treaty Act (MBTA) occur in the project region. Based on the lack of suitable habitat, there is no potential for occurrence of any special-status animal species within the study area.

Potentially suitable nesting habitat in the immediate project vicinity (*i.e.*, within 250 feet) for migratory birds is restricted to rooftops and building eaves; existing street trees are small (maximum height: 12 feet) and are unlikely to support successful breeding of migratory birds.

No special-status natural communities or habitat types are present within the study area. No wetlands or other waters of the U.S./waters of the State are present on site.

CONCLUSIONS

The study area supports no natural or artificial plant communities or habitat types. Potential wildlife habitats are restricted to a few small ornamental street trees and structures. Due to the highly altered nature of the study area and the high level of continuous human disturbance (*e.g.*, noise, lights, human activity), the likelihood of occupation by wildlife is extremely low. Only species inured to such high levels of human activity would be expected to periodically forage or potentially breed in the immediate project vicinity, including birds such as rock pigeon, house sparrows, European starling, and house finch (*Carpodacus mexicanus*), and mammals such as Norway and black rats (*Rattus norvegicus* and *R. rattus*).

The proposed project would be restricted to the paved portion of Illinois Street and would involve the removal of existing pavement, laying of new rail tracks, repaving of the street. Disturbances would include temporary increases in noise and activity associated with this work. The project would not involve the removal of any street trees or ruderal vegetation, or the demolition of structures that could potentially support nesting birds or roosting bats.

Project implementation would not result in any adverse effects on special-status plant or animal species, either directly, indirectly or cumulatively. Project implementation would not result in any direct, indirect or cumulative adverse effects on special-status natural communities or habitat types, including wetlands or other waters of the U.S./waters of the State.

If you have any questions about this evaluation, please don't hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads "Michael Wood". The signature is written in a cursive, flowing style.

Michael Wood

Enclosures: Literature Cited
 Attachment A – Database printouts

LITERATURE CITED

- Baldwin, B.G, D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. *The Jepson Manual: Vascular Plants of California*. Second edition. Univ. Calif. Press, Berkeley. 1568 pp. Jepson eFlora available online at <http://ucjeps.berkeley.edu/IJM.html>.
- California Department of Fish and Game (CDFG). 2010. *Natural Communities List Arranged Alphabetically by Life Form*. Vegetation Classification and Mapping Program, Biogeographic Data Branch. September. Available online at <http://www.dfg.ca.gov/biogeodata/vegcamp/pdfs/natcomlist.pdf>.
- . 2011a. *Special Animals*. California Natural Diversity Data Base. January. Available online at <http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/SPAnimals.pdf>.
- . 2011b. *State and Federally Listed Endangered and Threatened Animals of California*. Habitat Conservation Division, California Natural Diversity Data Base. January. Available online at <http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/TEAnimals.pdf>.
- . 2012a. *Special Vascular Plants, Bryophytes, and Lichens List*. Biannual publication, Mimeo. May. Available online at <http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/SPPlants.pdf>.
- . 2012b. *State and Federally Listed Endangered, Threatened, and Rare Plants of California*. Habitat Conservation Division, California Natural Diversity Data Base. May. Available online at <http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/TEPlants.pdf>.
- California Native Plant Society (CNPS). 2013. *Inventory of Rare and Endangered Plants*. Online search of the San Francisco North, Hunters Point, San Francisco South, Point Bonita, San Rafael, Oakland West, Richmond, and San Quentin USGS 7.5' Quadrangles. California Native Plant Society. Sacramento, CA. Online edition, v7-06d. Accessed on January 25, 2013 at <http://www.cnps.org/inventory>.
- California Natural Diversity Data Base (CNDDB). 2012. *Data Base Print-out for San Francisco North, Hunters Point, San Francisco South, Point Bonita, San Rafael, Oakland West, Richmond, San Quentin, and San Mateo USGS 7.5' Quadrangles*. RareFind 3.1.0. California Department of Fish and Game, Habitat Conservation Division. Sacramento, California. Information dated December 30, 2012.
- Howell, J.T., P.H. Raven, and P. Rubtsoff. 1958. *A Flora of San Francisco, California*. Univ. of San Francisco. 157 pp.
- United States Fish and Wildlife Service (USFWS). 2011. *Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the San Francisco North, Hunters Point, San Francisco South, Point Bonita, San Rafael, Oakland West, Richmond, San Quentin, and San Mateo 7.5-minute USGS Quadrangles*. Threatened and Endangered Species System (TESS)

printout. Database updated September 18, 2011, accessed January 25, 2013, at http://www.fws.gov/sacramento/ES_Species/Lists/es_species_lists-overview.htm.

Weeden, N. and M Lynes. 2009. *Summary Report of Avian Surveys Conducted in 2008 at Dilapidated Piers and Other Structures along the Port of San Francisco's Southern Waterfront Properties*. Unpublished report (GGA-2009-01). Golden Gate Audubon Society, Berkeley, California. Available on line at http://www.goldengateaudubon.org/wp-content/uploads/GGAS_SF_Waterfront_Survey_2008_090923_final.pdf.

Wood, M.K. 2012. *Preliminary Checklist of the Extant Flora of San Francisco County*. Co-chairman, Rare Plant Committee, California Native Plant Society, Yerba Buena Chapter. Revised December 10.

Wood, M.K. In preparation. *Rare and Locally Significant Plants of San Francisco County*. Rare Plant Committee, California Native Plant Society, Yerba Buena Chapter.

ATTACHMENT A

DATABASE PRINTOUTS

Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 <i>Acanthomintha duttonii</i> San Mateo thorn-mint	PDLAM01040	Endangered	Endangered	G1	S1	1B.1
2 <i>Accipiter cooperii</i> Cooper's hawk	ABNKC12040			G5	S3	
3 <i>Adela oplerella</i> Opler's longhorn moth	IILEE0G040			G2G3	S2S3	
4 <i>Allium peninsulare</i> var. <i>franciscanum</i> Franciscan onion	PMLIL021R1			G5T2	S2.2	1B.2
5 <i>Ambystoma californiense</i> California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	SC
6 <i>Amorpha californica</i> var. <i>napensis</i> Napa false indigo	PDFAB08012			G4T2	S2.2	1B.2
7 <i>Amsinckia lunaris</i> bent-flowered fiddleneck	PDBOR01070			G2?	S2?	1B.2
8 <i>Antrozous pallidus</i> pallid bat	AMACC10010			G5	S3	SC
9 <i>Archoplites interruptus</i> Sacramento perch	AFCQB07010			G3	S1	SC
10 <i>Arctostaphylos franciscana</i> Franciscan manzanita	PDERI040J3			G1	S1	1B.1
11 <i>Arctostaphylos imbricata</i> San Bruno Mountain manzanita	PDERI040L0		Endangered	G1	S1	1B.1
12 <i>Arctostaphylos montana</i> ssp. <i>montana</i> Mt. Tamalpais manzanita	PDERI040J5			G3T2	S2.2	1B.3
13 <i>Arctostaphylos montana</i> ssp. <i>ravenii</i> Presidio manzanita	PDERI040J2	Endangered	Endangered	G3T1	S1	1B.1
14 <i>Arctostaphylos montaraensis</i> Montara manzanita	PDERI042W0			G2	S2.2	1B.2
15 <i>Arctostaphylos pacifica</i> Pacific manzanita	PDERI040Z0		Endangered	G1	S1	1B.2
16 <i>Arctostaphylos pallida</i> pallid manzanita	PDERI04110	Threatened	Endangered	G1	S1	1B.1
17 <i>Arctostaphylos virgata</i> Marin manzanita	PDERI041K0			G2	S2.2	1B.2
18 <i>Ardea alba</i> great egret	ABNGA04040			G5	S4	
19 <i>Ardea herodias</i> great blue heron	ABNGA04010			G5	S4	
20 <i>Arenaria paludicola</i> marsh sandwort	PDCAR040L0	Endangered	Endangered	G1	S1	1B.1
21 <i>Asio flammeus</i> short-eared owl	ABNSB13040			G5	S3	SC
22 <i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i> coastal marsh milk-vetch	PDFAB0F7B2			G2T2	S2.2	1B.2
23 <i>Astragalus tener</i> var. <i>tener</i> alkali milk-vetch	PDFAB0F8R1			G2T2	S2	1B.2

Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
24 <i>Athene cunicularia</i> burrowing owl	ABNSB10010			G4	S2	SC
25 <i>Atriplex joaquinana</i> San Joaquin spearscale	PDCHE041F3			G2	S2	1B.2
26 <i>Banksula incredula</i> incredible harvestman	ILARA14100			G1	S1	
27 <i>Caecidotea tomalensis</i> Tomales isopod	ICMAL01220			G2	S2	
28 <i>Calicina minor</i> Edgewood blind harvestman	ILARA13020			G1	S1	
29 <i>California macrophylla</i> round-leaved filaree	PDGER01070			G2	S2	1B.1
30 <i>Callophrys mossii bayensis</i> San Bruno elfin butterfly	IILEPE2202	Endangered		G4T1	S1	
31 <i>Calochortus tiburonensis</i> Tiburon mariposa-lily	PMLIL0D1C0	Threatened	Threatened	G1	S1	1B.1
32 <i>Calystegia purpurata ssp. saxicola</i> coastal bluff morning-glory	PDCON040D2			G4T2	S2.2	1B.2
33 <i>Carex comosa</i> bristly sedge	PMCYP032Y0			G5	S2	2.1
34 <i>Castilleja affinis ssp. neglecta</i> Tiburon paintbrush	PDSCR0D013	Endangered	Threatened	G4G5T1	S1	1B.2
35 <i>Charadrius alexandrinus nivosus</i> western snowy plover	ABNNB03031	Threatened		G4T3	S2	SC
36 <i>Chloropyron maritimum ssp. palustre</i> Point Reyes bird's-beak	PDSCR0J0C3			G4?T2	S2.2	1B.2
37 <i>Chorizanthe cuspidata var. cuspidata</i> San Francisco Bay spineflower	PDPGN04081			G2T2	S2.2	1B.2
38 <i>Chorizanthe robusta var. robusta</i> robust spineflower	PDPGN040Q2	Endangered		G2T1	S1	1B.1
39 <i>Cicindela hirticollis gravida</i> sandy beach tiger beetle	IICOL02101			G5T2	S1	
40 <i>Circus cyaneus</i> northern harrier	ABNKC11010			G5	S3	SC
41 <i>Cirsium andrewsii</i> Franciscan thistle	PDAST2E050			G2	S2.2	1B.2
42 <i>Cirsium fontinale var. fontinale</i> fountain thistle	PDAST2E161	Endangered	Endangered	G2T2	S1	1B.1
43 <i>Cirsium hydrophilum var. vaseyi</i> Mt. Tamalpais thistle	PDAST2E1G2			G2T2	S2	1B.2
44 <i>Cirsium occidentale var. compactum</i> compact cobwebby thistle	PDAST2E1Z1			G3G4T2	S2.1	1B.2
45 <i>Clarkia franciscana</i> Presidio clarkia	PDONA050H0	Endangered	Endangered	G1	S1	1B.1
46 <i>Coastal Brackish Marsh</i>	CTT52200CA			G2	S2.1	
47 <i>Coastal Terrace Prairie</i>	CTT41100CA			G2	S2.1	

Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
48 <i>Collinsia corymbosa</i> round-headed Chinese-houses	PDSCR0H060			G1	S1	1B.2
49 <i>Collinsia multicolor</i> San Francisco collinsia	PDSCR0H0B0			G2	S2.2	1B.2
50 <i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010			G4	S2S3	SC
51 <i>Danaus plexippus</i> monarch butterfly	IILEPP2010			G5	S3	
52 <i>Dipodomys venustus venustus</i> Santa Cruz kangaroo rat	AMAFD03042			G4T1	S1	
53 <i>Dirca occidentalis</i> western leatherwood	PDTHY03010			G2G3	S2S3	1B.2
54 <i>Dufourea stagei</i> Stage's dufourine bee	IIHYM22010			G1?	S1?	
55 <i>Egretta thula</i> snowy egret	ABNGA06030			G5	S4	
56 <i>Elanus leucurus</i> white-tailed kite	ABNKC06010			G5	S3	
57 <i>Emys marmorata</i> western pond turtle	ARAAD02030			G3G4	S3	SC
58 <i>Enhydra lutris nereis</i> southern sea otter	AMAJF09012	Threatened		G4T2	S2	
59 <i>Eriogonum luteolum var. caninum</i> Tiburon buckwheat	PDPGN083S1			G5T2	S2	1B.2
60 <i>Eriophyllum latilobum</i> San Mateo woolly sunflower	PDAST3N060	Endangered	Endangered	G1	S1	1B.1
61 <i>Eucyclogobius newberryi</i> tidewater goby	AFCQN04010	Endangered		G3	S2S3	SC
62 <i>Euphydryas editha bayensis</i> Bay checkerspot butterfly	IILEPK4055	Threatened		G5T1	S1	
63 <i>Falco peregrinus anatum</i> American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T3	S2	
64 <i>Fissidens pauperculus</i> minute pocket moss	NBMUS2W0U0			G3?	S1	1B.2
65 <i>Fritillaria biflora var. ineziana</i> Hillsborough chocolate lily	PMLIL0V031			G1QT1Q	S1	1B.1
66 <i>Fritillaria lanceolata var. tristulis</i> Marin checker lily	PMLIL0V0P1			G5T2	S2	1B.1
67 <i>Fritillaria liliacea</i> fragrant fritillary	PMLIL0V0C0			G2	S2	1B.2
68 <i>Geothlypis trichas sinuosa</i> saltmarsh common yellowthroat	ABPBX1201A			G5T2	S2	SC
69 <i>Gilia capitata ssp. chamissonis</i> blue coast gilia	PDPLM040B3			G5T2	S2.1	1B.1
70 <i>Gilia millefoliata</i> dark-eyed gilia	PDPLM04130			G2	S2.2	1B.2

Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
71 <i>Grindelia hirsutula var. maritima</i> San Francisco gumplant	PDAST470D3			G5T1Q	S1	3.2
72 <i>Helianthella castanea</i> Diablo helianthella	PDAST4M020			G2	S2	1B.2
73 <i>Helminthoglypta nickliniana bridgesi</i> Bridges' coast range shoulderband	IMGASC2362			G2T1	S1	
74 <i>Hemizonia congesta ssp. congesta</i> white seaside tarplant	PDAST4R065			G5T2T3	S2S3	1B.2
75 <i>Hesperevax sparsiflora var. brevifolia</i> short-leaved evax	PDASTE5011			G4T2T3	S2S3	1B.2
76 <i>Hesperolinon congestum</i> Marin western flax	PDLIN01060	Threatened	Threatened	G2	S2	1B.1
77 <i>Hoita strobilina</i> Loma Prieta hoita	PDFAB5Z030			G2	S2	1B.1
78 <i>Holocarpha macradenia</i> Santa Cruz tarplant	PDAST4X020	Threatened	Endangered	G1	S1	1B.1
79 <i>Horkelia cuneata var. sericea</i> Kellogg's horkelia	PDR0S0W043			G4T2	S2?	1B.1
80 <i>Horkelia tenuiloba</i> thin-lobed horkelia	PDR0S0W0E0			G2	S2.2	1B.2
81 <i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	IICOL5V010			G1G2	S1S2	
82 <i>Hydroporus leechi</i> Leech's skyline diving beetle	IICOL55040			G1?	S1?	
83 <i>Hydroprogne caspia</i> Caspian tern	ABNNM08020			G5	S4	
84 <i>Ischnura gemina</i> San Francisco forktail damselfly	IIOD072010			G2	S2	
85 <i>Kopsiopsis hookeri</i> small groundcone	PDORO01010			G5	S1S2	2.3
86 <i>Lasionycteris noctivagans</i> silver-haired bat	AMACC02010			G5	S3S4	
87 <i>Lasiurus blossevillii</i> western red bat	AMACC05060			G5	S3?	SC
88 <i>Lasiurus cinereus</i> hoary bat	AMACC05030			G5	S4?	
89 <i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041		Threatened	G4T1	S1	
90 <i>Layia carnosa</i> beach layia	PDAST5N010	Endangered	Endangered	G2	S2	1B.1
91 <i>Leptosiphon rosaceus</i> rose leptosiphon	PDPLM09180			G1	S1	1B.1
92 <i>Lessingia arachnoidea</i> Crystal Springs lessingia	PDAST5S0C0			G1	S1	1B.2
93 <i>Lessingia germanorum</i> San Francisco lessingia	PDAST5S010	Endangered	Endangered	G1	S1	1B.1

	Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
94	<i>Lessingia micradenia</i> var. <i>micradenia</i> Tamalpais lessingia	PDAST5S063			G2T1T2	S1S2	1B.2
95	<i>Lichnanthe ursina</i> bumblebee scarab beetle	IICOL67020			G2	S2	
96	<i>Malacothamnus arcuatus</i> arcuate bush-mallow	PDMAL0Q0E0			G2Q	S2.2	1B.2
97	<i>Malacothamnus davidsonii</i> Davidson's bush-mallow	PDMAL0Q040			G2	S2	1B.2
98	<i>Malacothamnus hallii</i> Hall's bush-mallow	PDMAL0Q0F0			G2Q	S2	1B.2
99	<i>Masticophis lateralis euryxanthus</i> Alameda whipsnake	ARADB21031	Threatened	Threatened	G4T2	S2	
100	<i>Melospiza melodia pusillula</i> Alameda song sparrow	ABPBXA301S			G5T2?	S2?	SC
101	<i>Melospiza melodia samuelis</i> San Pablo song sparrow	ABPBXA301W			G5T2?	S2?	SC
102	<i>Microcina leei</i> Lee's micro-blind harvestman	ILARA47040			G1	S1	
103	<i>Microcina tiburona</i> Tiburon micro-blind harvestman	ILARA47060			G1	S1	
104	<i>Microseris paludosa</i> marsh microseris	PDAST6E0D0			G2	S2.2	1B.2
105	<i>Microtus californicus sanpabloensis</i> San Pablo vole	AMAFF11034			G5T1T2	S1S2	SC
106	<i>Mylopharodon conocephalus</i> hardhead	AFCJB25010			G3	S3	SC
107	<i>Navarretia rosulata</i> Marin County navarretia	PDPLM0C0Z0			G2?	S2?	1B.2
108	Northern Coastal Salt Marsh	CTT52110CA			G3	S3.2	
109	Northern Maritime Chaparral	CTT37C10CA			G1	S1.2	
110	<i>Nycticorax nycticorax</i> black-crowned night heron	ABNGA11010			G5	S3	
111	<i>Nyctinomops macrotis</i> big free-tailed bat	AMACD04020			G5	S2	SC
112	<i>Oncorhynchus kisutch</i> coho salmon - central California coast ESU	AFCHA02034	Endangered	Endangered	G4	S2?	
113	<i>Pentachaeta bellidiflora</i> white-rayed pentachaeta	PDAST6X030	Endangered	Endangered	G1	S1	1B.1
114	<i>Phalacrocorax auritus</i> double-crested cormorant	ABNFD01020			G5	S3	
115	<i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i> Choris' popcornflower	PDBOR0V061			G3T2Q	S2.2	1B.2
116	<i>Plagiobothrys diffusus</i> San Francisco popcornflower	PDBOR0V080		Endangered	G1Q	S1	1B.1
117	<i>Plagiobothrys glaber</i> hairless popcornflower	PDBOR0V0B0			GH	SH	1A

	Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
118	<i>Plebejus icarioides missionensis</i> Mission blue butterfly	IILEPG801A	Endangered		G5T1	S1	
119	<i>Pleuropogon hooverianus</i> North Coast semaphore grass	PMPOA4Y070		Threatened	G2	S2	1B.1
120	<i>Polemonium carneum</i> Oregon polemonium	PDPLM0E050			G4	S1	2.2
121	<i>Polygonum marinense</i> Marin knotweed	PDPGN0L1C0			G1Q	S1.1	3.1
122	<i>Pomatiopsis binneyi</i> robust walker	IMGASJ9010			G1	S1	
123	<i>Quercus parvula var. tamalpaisensis</i> Tamalpais oak	PDFAG051Q3			G4T1	S1.3	1B.3
124	<i>Rallus longirostris obsoletus</i> California clapper rail	ABNME05016	Endangered	Endangered	G5T1	S1	
125	<i>Rana boylei</i> foothill yellow-legged frog	AAABH01050			G3	S2S3	SC
126	<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened		G4T2T3	S2S3	SC
127	<i>Reithrodontomys raviventris</i> salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S1S2	
128	<i>Riparia riparia</i> bank swallow	ABPAU08010		Threatened	G5	S2S3	
129	<i>Sanicula maritima</i> adobe sanicle	PDAPI1Z0D0		Rare	G2	S2.2	1B.1
130	<i>Scapanus latimanus insularis</i> Angel Island mole	AMABB02032			G5T1	S1	
131	<i>Scapanus latimanus parvus</i> Alameda Island mole	AMABB02031			G5T1Q	S1	SC
132	<i>Serpentine Bunchgrass</i>	CTT42130CA			G2	S2.2	
133	<i>Sidalcea calycosa ssp. rhizomata</i> Point Reyes checkerbloom	PDMAL11012			G5T2	S2.2	1B.2
134	<i>Sidalcea hickmanii ssp. viridis</i> Marin checkerbloom	PDMAL110A4			G3T2	S2.2?	1B.3
135	<i>Silene verecunda ssp. verecunda</i> San Francisco campion	PDCAR0U213			G5T2	S2.2	1B.2
136	<i>Sorex vagrans halicoetes</i> salt-marsh wandering shrew	AMABA01071			G5T1	S1	SC
137	<i>Speyeria callippe callippe</i> callippe silverspot butterfly	IILEPJ6091	Endangered		G5T1	S1	
138	<i>Speyeria zerene myrtleae</i> Myrtle's silverspot	IILEPJ6089	Endangered		G5T1	S1	
139	<i>Stebbinsoseris decipiens</i> Santa Cruz microseris	PDAST6E050			G2	S2.2	1B.2
140	<i>Sternula antillarum browni</i> California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2S3	
141	<i>Streptanthus batrachopus</i> Tamalpais jewel-flower	PDBRA2G050			G1	S1.2	1B.3

Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
142 <i>Streptanthus glandulosus ssp. niger</i> Tiburon jewel-flower	PDBRA2G0T0	Endangered	Endangered	G4T1	S1	1B.1
143 <i>Streptanthus glandulosus ssp. pulchellus</i> Mount Tamalpais bristly jewel-flower	PDBRA2G0J2			G4T1	S1.2	1B.2
144 <i>Suaeda californica</i> California seablite	PDCHE0P020	Endangered		G1	S1	1B.1
145 <i>Symphyotrichum lentum</i> Suisun Marsh aster	PDASTE8470			G2	S2	1B.2
146 <i>Taxidea taxus</i> American badger	AMAJF04010			G5	S4	SC
147 <i>Thamnophis sirtalis tetrataenia</i> San Francisco garter snake	ARADB3613B	Endangered	Endangered	G5T2	S2	
148 <i>Trachusa gummifera</i> San Francisco Bay Area leaf-cutter bee	IIHYM80010			G1	S1	
149 <i>Trifolium amoenum</i> showy rancheria clover	PDFAB40040	Endangered		G1	S1	1B.1
150 <i>Trifolium hydrophilum</i> saline clover	PDFAB400R5			G2	S2	1B.2
151 <i>Triphysaria floribunda</i> San Francisco owl's-clover	PDSCR2T010			G2	S2.2	1B.2
152 <i>Triquetrella californica</i> coastal triquetrella	NBMUS7S010			G1	S1	1B.2
153 <i>Tryonia imitator</i> mimic tryonia (=California brackishwater snail)	IMGASJ7040			G2G3	S2S3	
154 <i>Valley Needlegrass Grassland</i>	CTT42110CA			G3	S3.1	
155 <i>Vespericola marinensis</i> Marin hesperian	IMGASA4140			G2G3	S2S3	
156 <i>Xanthocephalus xanthocephalus</i> yellow-headed blackbird	ABPBXB3010			G5	S3S4	SC
157 <i>Zapus trinotatus orarius</i> Point Reyes jumping mouse	AMAFH01031			G5T1T3Q	S1S3	SC

CNPS *California Native Plant* Inventory of Rare and Endangered Plants

Plant List

97 matches found. *Click on scientific name for details*

Search Criteria

Found in 9 Quads around 37122G4

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank
Amorpha californica var. napensis	Napa false indigo	Fabaceae	perennial deciduous shrub	1B.2	S2.2	G4T2
Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	annual herb	1B.2	S2?	G2?
Arabis blepharophylla	coast rockcress	Brassicaceae	perennial herb	4.3	S3.3?	G3
Arctostaphylos franciscana	Franciscan manzanita	Ericaceae	perennial evergreen shrub	1B.1	S1	G1
Arctostaphylos imbricata	San Bruno Mountain manzanita	Ericaceae	perennial evergreen shrub	1B.1	S1	G1
Arctostaphylos montana ssp. montana	Mt. Tamalpais manzanita	Ericaceae	perennial evergreen shrub	1B.3	S2.2	G3T2
Arctostaphylos montana ssp. ravenii	Presidio manzanita	Ericaceae	perennial evergreen shrub	1B.1	S1	G3T1
Arctostaphylos montaraensis	Montara manzanita	Ericaceae	perennial evergreen shrub	1B.2	S2.2	G2
Arctostaphylos pacifica	Pacific manzanita	Ericaceae	evergreen shrub	1B.2	S1	G1
Arctostaphylos pallida	pallid manzanita	Ericaceae	perennial evergreen shrub	1B.1	S1	G1
Arctostaphylos virgata	Marin manzanita	Ericaceae	perennial evergreen shrub	1B.2	S2.2	G2
Arenaria paludicola	marsh sandwort	Caryophyllaceae	perennial stoloniferous herb	1B.1	S1	G1
Aspidotis carlotta-halliae	Carlotta Hall's lace fern	Pteridaceae	perennial rhizomatous herb	4.2	S3.2	G3
Astragalus breweri	Brewer's milk-vetch	Fabaceae	annual herb	4.2	S3.2	G3
Astragalus nuttallii var. nuttallii	ocean bluff milk-vetch	Fabaceae	perennial herb	4.2	S3.2	G3T3
Astragalus tener var. tener	alkali milk-vetch	Fabaceae	annual herb	1B.2	S2	G2T2
Atriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb	1B.2	S2	G2
Calamagrostis ophitidis	serpentine reed grass	Poaceae	perennial herb	4.3	S3.3	G3
Calandrinia breweri	Brewer's calandrinia	Montiaceae	annual herb	4.2	S3.2?	G4
California macrophylla	round-leaved filaree	Geraniaceae	annual herb	1B.1	S2	G2

<u>Calochortus tiburonensis</u>	Tiburon mariposa lily	Liliaceae	perennial bulbiferous herb	1B.1	S1	G1
<u>Calochortus umbellatus</u>	Oakland star-tulip	Liliaceae	perennial bulbiferous herb	4.2	S3.2	G3
<u>Calystegia purpurata ssp. saxicola</u>	coastal bluff morning-glory	Convolvulaceae	perennial herb	1B.2	S2.2	G4T2
<u>Carex comosa</u>	bristly sedge	Cyperaceae	perennial rhizomatous herb	2.1	S2	G5
<u>Castilleja affinis ssp. neglecta</u>	Tiburon paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	1B.2	S1	G4G5T1
<u>Centromadia parryi ssp. parryi</u>	pappose tarplant	Asteraceae	annual herb	1B.2	S1	G4T1
<u>Chloropyron maritimum ssp. palustre</u>	Point Reyes bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	1B.2	S2.2	G4?T2
<u>Chorizanthe cuspidata var. cuspidata</u>	San Francisco Bay spineflower	Polygonaceae	annual herb	1B.2	S2.2	G2T2
<u>Chorizanthe robusta var. robusta</u>	robust spineflower	Polygonaceae	annual herb	1B.1	S1	G2T1
<u>Chorizanthe valida</u>	Sonoma spineflower	Polygonaceae	annual herb	1B.1	S1	G1
<u>Cirsium andrewsii</u>	Franciscan thistle	Asteraceae	perennial herb	1B.2	S2.2	G2
<u>Cirsium hydrophilum var. vaseyi</u>	Mt. Tamalpais thistle	Asteraceae	perennial herb	1B.2	S2	G2T2
<u>Cirsium occidentale var. compactum</u>	compact cobwebby thistle	Asteraceae	perennial herb	1B.2	S2.1	G3G4T2
<u>Cistanthe maritima</u>	seaside cistanthe	Montiaceae	annual herb	4.2	S3.2	G3G4
<u>Clarkia franciscana</u>	Presidio clarkia	Onagraceae	annual herb	1B.1	S1	G1
<u>Collinsia corymbosa</u>	round-headed Chinese-houses	Plantaginaceae	annual herb	1B.2	S1	G1
<u>Collinsia multicolor</u>	San Francisco collinsia	Plantaginaceae	annual herb	1B.2	S2.2	G2
<u>Dirca occidentalis</u>	western leatherwood	Thymelaeaceae	perennial deciduous shrub	1B.2	S2S3	G2G3
<u>Elymus californicus</u>	California bottle-brush grass	Poaceae	perennial herb	4.3	S3.3	G3
<u>Equisetum palustre</u>	marsh horsetail	Equisetaceae	perennial rhizomatous herb	3	S1S2	G5
<u>Eriogonum luteolum var. caninum</u>	Tiburon buckwheat	Polygonaceae	annual herb	1B.2	S2	G5T2
<u>Eriophorum gracile</u>	slender cottongrass	Cyperaceae	perennial rhizomatous herb	4.3	S3.3	G5
<u>Erysimum franciscanum</u>	San Francisco wallflower	Brassicaceae	perennial herb	4.2	S3.2	G3
<u>Fissidens pauperculus</u>	minute pocket moss	Fissidentaceae	moss	1B.2	S1	G3?
<u>Fritillaria lanceolata var. tristulis</u>	Marin checker lily	Liliaceae	perennial bulbiferous herb	1B.1	S2	G5T2
<u>Fritillaria liliacea</u>	fragrant fritillary	Liliaceae	perennial bulbiferous herb	1B.2	S2	G2
<u>Gilia capitata ssp. chamissonis</u>	blue coast gilia	Polemoniaceae	annual herb	1B.1	S2.1	G5T2
<u>Gilia capitata ssp. tomentosa</u>	woolly-headed gilia	Polemoniaceae	annual herb	1B.1	S2	G5T2

<u>Gilia millefoliata</u>	dark-eyed gilia	Polemoniaceae	annual herb	1B.2	S2.2	G2
<u>Grindelia hirsutula var. maritima</u>	San Francisco gumplant	Asteraceae	perennial herb	3.2	S1	G5T1Q
<u>Helianthella castanea</u>	Diablo helianthella	Asteraceae	perennial herb	1B.2	S2	G2
<u>Hemizonia congesta ssp. congesta</u>	white seaside tarplant	Asteraceae	annual herb	1B.2	S2S3	G5T2T3
<u>Hesperevax sparsiflora var. brevifolia</u>	short-leaved evax	Asteraceae	annual herb	1B.2	S2S3	G4T2T3
<u>Hesperolinon congestum</u>	Marin western flax	Linaceae	annual herb	1B.1	S2	G2
<u>Hoita strobilina</u>	Loma Prieta hoita	Fabaceae	perennial herb	1B.1	S2	G2
<u>Holocarpha macradenia</u>	Santa Cruz tarplant	Asteraceae	annual herb	1B.1	S1	G1
<u>Horkelia cuneata var. sericea</u>	Kellogg's horkelia	Rosaceae	perennial herb	1B.1	S2?	G4T2
<u>Horkelia tenuiloba</u>	thin-lobed horkelia	Rosaceae	perennial herb	1B.2	S2.2	G2
<u>Iris longipetala</u>	coast iris	Iridaceae	perennial rhizomatous herb	4.2	S3.2	G3
<u>Kopsiopsis hookeri</u>	small groundcone	Orobanchaceae	perennial rhizomatous herb (parasitic)	2.3	S1S2	G5
<u>Layia carnosa</u>	beach layia	Asteraceae	annual herb	1B.1	S2	G2
<u>Leptosiphon acicularis</u>	bristly leptosiphon	Polemoniaceae	annual herb	4.2	S3.2	G3
<u>Leptosiphon grandiflorus</u>	large-flowered leptosiphon	Polemoniaceae	annual herb	4.2	S3.2	G3
<u>Leptosiphon rosaceus</u>	rose leptosiphon	Polemoniaceae	annual herb	1B.1	S1	G1
<u>Lessingia germanorum</u>	San Francisco lessingia	Asteraceae	annual herb	1B.1	S1	G1
<u>Lessingia hololeuca</u>	woolly-headed lessingia	Asteraceae	annual herb	3	S3	G3
<u>Lessingia micradenia var. micradenia</u>	Tamalpais lessingia	Asteraceae	annual herb	1B.2	S1S2	G2T1T2
<u>Malacothamnus arcuatus</u>	arcuate bush-mallow	Malvaceae	perennial evergreen shrub	1B.2	S2.2	G2Q
<u>Meconella oregana</u>	Oregon meconella	Papaveraceae	annual herb	1B.1	S1	G2G3
<u>Micropus amphibolus</u>	Mt. Diablo cottonweed	Asteraceae	annual herb	3.2	S3.2?	G3
<u>Microseris paludosa</u>	marsh microseris	Asteraceae	perennial herb	1B.2	S2.2	G2
<u>Navarretia leucocephala ssp. bakeri</u>	Baker's navarretia	Polemoniaceae	annual herb	1B.1	S2	G4T2
<u>Navarretia rosulata</u>	Marin County navarretia	Polemoniaceae	annual herb	1B.2	S2?	G2?
<u>Pentachaeta bellidiflora</u>	white-rayed pentachaeta	Asteraceae	annual herb	1B.1	S1	G1
<u>Perideridia gairdneri ssp. gairdneri</u>	Gairdner's yampah	Apiaceae	perennial herb	4.2	S3.2	G5T3
<u>Plagiobothrys chorisianus var. chorisianus</u>	Choris' popcorn-flower	Boraginaceae	annual herb	1B.2	S2.2	G3T2Q
<u>Plagiobothrys diffusus</u>	San Francisco popcorn-flower	Boraginaceae	annual herb	1B.1	S1	G1Q
<u>Plagiobothrys glaber</u>	hairless popcorn-flower	Boraginaceae	annual herb	1A	SH	GH

Pleuropogon hooverianus	North Coast semaphore grass	Poaceae	perennial rhizomatous herb	1B.1	S2	G2
Polemonium carneum	Oregon polemonium	Polemoniaceae	perennial herb	2.2	S1	G4
Polygonum marinense	Marin knotweed	Polygonaceae	annual herb	3.1	S1.1	G1Q
Quercus parvula var. tamalpaisensis	Tamalpais oak	Fagaceae	perennial evergreen shrub	1B.3	S1.3	G4T1
Ranunculus lobbii	Lobb's aquatic buttercup	Ranunculaceae	annual herb	4.2	S3.2	G4
Sanicula maritima	adobe sanicle	Apiaceae	perennial herb	1B.1	S2.2	G2
Sidalcea calycosa ssp. rhizomata	Point Reyes checkerbloom	Malvaceae	perennial rhizomatous herb	1B.2	S2.2	G5T2
Silene verecunda ssp. verecunda	San Francisco campion	Caryophyllaceae	perennial herb	1B.2	S2.2	G5T2
Stebbinsoseris decipiens	Santa Cruz microseris	Asteraceae	annual herb	1B.2	S2.2	G2
Streptanthus albidus ssp. peramoenus	most beautiful jewel-flower	Brassicaceae	annual herb	1B.2	S2.2	G2T2
Streptanthus batrachopus	Tamalpais jewel-flower	Brassicaceae	annual herb	1B.3	S1.2	G1
Streptanthus glandulosus ssp. niger	Tiburon jewel-flower	Brassicaceae	annual herb	1B.1	S1	G4T1
Streptanthus glandulosus ssp. pulchellus	Mount Tamalpais bristly jewel-flower	Brassicaceae	annual herb	1B.2	S1.2	G4T1
Suaeda californica	California seablite	Chenopodiaceae	perennial evergreen shrub	1B.1	S1	G1
Symphyotrichum lentum	Suisun Marsh aster	Asteraceae	perennial rhizomatous herb	1B.2	S2	G2
Trifolium amoenum	two-fork clover	Fabaceae	annual herb	1B.1	S1	G1
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	1B.2	S2	G2
Triphysaria floribunda	San Francisco owl's-clover	Orobanchaceae	annual herb	1B.2	S2.2	G2
Triquetrella californica	coastal triquetrella	Pottiaceae	moss	1B.2	S1	G1

Suggested Citation

California Native Plant Society (CNPS). 2013. Inventory of Rare and Endangered Plants (online edition, v8-01a). California Native Plant Society. Sacramento, CA. Accessed on Friday, January 25, 2013.

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Contributors

Jenkins Family

Bilisoly Bequest Grant

[California Natural Diversity Database](#)

[The Calflora Database](#)

[Studio Simple](#)

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United States Department of the Interior
FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825



January 25, 2013

Document Number: 130125021323

Michael Wood
Ward and Associates

Subject: Species List for Mission Bay Loop, Third Street Light Rail Project, San Francisco

Dear: Mr. Michael Wood

We are sending this official species list in response to your January 25, 2013 request for information about endangered and threatened species. The list covers the California counties and/or U.S. Geological Survey 7½ minute quad or quads you requested.

Our database was developed primarily to assist Federal agencies that are consulting with us. Therefore, our lists include all of the sensitive species that have been found in a certain area *and also ones that may be affected by projects in the area*. For example, a fish may be on the list for a quad if it lives somewhere downstream from that quad. Birds are included even if they only migrate through an area. In other words, we include all of the species we want people to consider when they do something that affects the environment.

Please read Important Information About Your Species List (below). It explains how we made the list and describes your responsibilities under the Endangered Species Act.

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be April 25, 2013.

Please contact us if your project may affect endangered or threatened species or if you have any questions about the attached list or your responsibilities under the Endangered Species Act. A list of Endangered Species Program contacts can be found [here](#).

Endangered Species Division



U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office
Federal Endangered and Threatened Species that Occur in
or may be Affected by Projects in the Counties and/or
U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 130125021323

Database Last Updated: September 18, 2011

Quad Lists

Listed Species

Invertebrates

- Euphydryas editha bayensis*
 - bay checkerspot butterfly (T)
 - Critical habitat, bay checkerspot butterfly (X)
- Haliotes cracherodii*
 - black abalone (E) (NMFS)
- Haliotes sorenseni*
 - white abalone (E) (NMFS)
- Icaricia icarioides missionensis*
 - mission blue butterfly (E)
- Speyeria callippe callippe*
 - callippe silverspot butterfly (E)
- Speyeria zerene myrtleae*
 - Myrtle's silverspot butterfly (E)

Fish

- Acipenser medirostris*
 - green sturgeon (T) (NMFS)
- Eucyclogobius newberryi*
 - critical habitat, tidewater goby (X)
 - tidewater goby (E)
- Hypomesus transpacificus*
 - delta smelt (T)
- Oncorhynchus kisutch*
 - coho salmon - central CA coast (E) (NMFS)
 - Critical habitat, coho salmon - central CA coast (X) (NMFS)
- Oncorhynchus mykiss*
 - Central California Coastal steelhead (T) (NMFS)
 - Central Valley steelhead (T) (NMFS)
 - Critical habitat, Central California coastal steelhead (X) (NMFS)
 - Critical habitat, Central Valley steelhead (X) (NMFS)
- Oncorhynchus tshawytscha*
 - California coastal chinook salmon (T) (NMFS)
 - Central Valley spring-run chinook salmon (T) (NMFS)

Critical habitat, winter-run chinook salmon (X) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Rana draytonii

California red-legged frog (T)
Critical habitat, California red-legged frog (X)

Reptiles

Caretta caretta

loggerhead turtle (T) (NMFS)

Chelonia mydas (incl. agassizi)

green turtle (T) (NMFS)

Dermochelys coriacea

leatherback turtle (E) (NMFS)

Lepidochelys olivacea

olive (=Pacific) ridley sea turtle (T) (NMFS)

Masticophis lateralis euryxanthus

Alameda whipsnake [=striped racer] (T)
Critical habitat, Alameda whipsnake (X)

Thamnophis sirtalis tetrataenia

San Francisco garter snake (E)

Birds

Brachyramphus marmoratus

Critical habitat, marbled murrelet (X)
marbled murrelet (T)

Charadrius alexandrinus nivosus

western snowy plover (T)

Diomedea albatrus

short-tailed albatross (E)

Pelecanus occidentalis californicus

California brown pelican (E)

Rallus longirostris obsoletus

California clapper rail (E)

Sternula antillarum (=Sterna, =albifrons) browni

California least tern (E)

Strix occidentalis caurina

northern spotted owl (T)

Mammals

Arctocephalus townsendi

Guadalupe fur seal (T) (NMFS)

Balaenoptera borealis

sei whale (E) (NMFS)

Balaenoptera musculus

blue whale (E) (NMFS)

Balaenoptera physalus

finback (=fin) whale (E) (NMFS)

Enhydra lutris nereis

southern sea otter (T)

Eubalaena (=Balaena) glacialis

right whale (E) (NMFS)

Eumetopias jubatus

Critical Habitat, Steller (=northern) sea-lion (X) (NMFS)

Steller (=northern) sea-lion (T) (NMFS)

Physeter catodon (=macrocephalus)

sperm whale (E) (NMFS)

Reithrodontomys raviventris

salt marsh harvest mouse (E)

Plants

Acanthomintha duttonii

San Mateo thornmint (E)

Arctostaphylos hookeri ssp. ravenii

Presidio (=Raven's) manzanita (E)

Arctostaphylos pallida

pallid manzanita (=Alameda or Oakland Hills manzanita) (T)

Arenaria paludicola

marsh sandwort (E)

Calochortus tiburonensis

Tiburon mariposa lily (T)

Castilleja affinis ssp. neglecta

Tiburon paintbrush (E)

Chorizanthe robusta var. robusta

robust spineflower (E)

Cirsium fontinale var. fontinale

fountain thistle (E)

Clarkia franciscana

Presidio clarkia (E)

Eriophyllum latilobum

San Mateo woolly sunflower (E)

Hesperolinon congestum

Marin dwarf-flax (=western flax) (T)

Holocarpha macradenia

Critical habitat, Santa Cruz tarplant (X)

Santa Cruz tarplant (T)

Layia carnosa

beach layia (E)

Lessingia germanorum

San Francisco lessingia (E)

Pentachaeta bellidiflora

white-rayed pentachaeta (E)

Streptanthus niger

Tiburon jewelflower (E)

Suaeda californica

California sea blite (E)

Trifolium amoenum

showy Indian clover (E)

Proposed Species

Plants

Arctostaphylos Franciscana

Critical Habitat, Franciscan Manzanita (X)

Quads Containing Listed, Proposed or Candidate Species:

HUNTERS POINT (448A)

SAN FRANCISCO SOUTH (448B)

SAN MATEO (448D)

RICHMOND (466A)

SAN QUENTIN (466B)

SAN FRANCISCO NORTH (466C)

OAKLAND WEST (466D)

SAN RAFAEL (467A)

POINT BONITA (467D)

County Lists

No county species lists requested.

Key:

(E) *Endangered* - Listed as being in danger of extinction.

(T) *Threatened* - Listed as likely to become endangered within the foreseeable future.

(P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.

(NMFS) Species under the Jurisdiction of the [National Oceanic & Atmospheric Administration Fisheries Service](#). Consult with them directly about these species.

Critical Habitat - Area essential to the conservation of a species.

(PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.

(C) *Candidate* - Candidate to become a proposed species.

(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.

(X) *Critical Habitat* designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.

- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online [Inventory of Rare and Endangered Plants](#).

Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our [Protocol](#) and [Recovery Permits](#) pages.

For plant surveys, we recommend using the [Guidelines for Conducting and Reporting Botanical Inventories](#). The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal [consultation](#) with the Service.

During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential

to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our [Map Room](#) page.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. [More info](#)

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6520.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be April 25, 2013.

APPENDIX C

**LETTER FROM FTA TO STATE HISTORIC PRESERVATION OFFICER
REQUESTING CONCURRENCE ON FINDING OF NO ADVERSE EFFECT**

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U.S. Department
of Transportation
**Federal Transit
Administration**

REGION IX
Arizona, California,
Hawaii, Nevada, Guam
American Samoa,
Northern Mariana Islands

201 Mission Street
Suite 1650
San Francisco, CA 94105-1839
415-744-3133
415-744-2726 (fax)

MAR 27 2013

Ms. Carol Rowland-Nawi
State Historic Preservation Officer
Office of Historic Preservation
California Department of Parks and Recreation
1725 23rd Street, Suite 100
Sacramento, CA 95816

Attention: Dr. Susan Stratton and Kathleen Forrest, Project Review Unit

Re: Request for Concurrence on APE, Eligibility
of Historic Resources, and Finding of No
Adverse Effect for Mission Bay Transit Loop
Project

Dear Ms. Roland-Nawi:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA) (36 CFR § 800), the Federal Transit Administration (FTA), in coordination with the San Francisco Municipal Transportation Agency (SFMTA), requests concurrence from the California State Historic Preservation Officer (SHPO) for the area of potential effects (APE), determination of eligibility and determination of no adverse effects to historic resources for the proposed Mission Bay Transit Loop Project in the City of San Francisco.

Project Description

An Environmental Impact Statement/Environmental Impact Record for the Third Street Light Rail Project was completed and approved in 1999 by the FTA and the SFMTA. A Programmatic Agreement among the Advisory Council on Historic Preservation, FTA, and SFMTA was signed regarding effects from the Third Street Light Rail Project. Construction of the light rail project was completed in 2003 but due to budget constraints, a portion of the Third Street Light Rail Project, the Mission Bay Transit Loop was not completed.

The SFMTA plans to start construction of the Mission Bay Transit Loop, a new train turnaround at Third, Eighteenth, Nineteenth and Illinois Streets as early as 2014. The Mission Bay Transit Loop will allow the SFMTA to increase transit service between Mission Bay, South of Market Street neighborhoods, and Chinatown. The project will also allow for increased transit frequency south of Mission Bay. The alternatives include the No Action and the Proposed Action Alternatives. Attachment 1 includes a project map and pictures of the project area.

Shown in Figure 1 of the attached Technical Memorandum for Cultural Resources, the Proposed Action Alternative consists of the construction and operation of a transit loop to provide turnaround capabilities for the T-Third Street light rail line via a connection of trackway on Third

Street, Eighteenth, Illinois, and Nineteenth Streets. The existing track at Third Street/Eighteen Street would be extended along Eighteenth Street to Illinois Street and then south on Illinois Street to Nineteenth Street to complete the loop. Roughly 900 feet of single-trackway with track drains connected to the existing combined sewer and storm system would be installed in the centerline of the existing right-of way. Traffic, pedestrian, and train signals at the intersections and sidewalk improvements along the loop would be installed. The direct fixation trackway would be 16 inches thick and would require excavation of approximately 18 inches below grade. In order to install the new trackway along Illinois Street, a 534 foot section of abandoned freight tracks owned by Union Pacific Railroad will be removed from about 25 feet north of Eighteenth/Illinois Streets to 25 feet south of Nineteenth/Illinois Streets. Catenary poles would be installed at a maximum depth of 10 feet. Street lights would be standard cobra-head streetlight fixtures. The project would be constructed so as not to preclude a future a passenger platform on Illinois/Nineteenth Street.

Area of Potential Effects

Shown in the attached technical memo in Figure 1, the APE for the proposed project is 900 feet in length and includes the width of the street and sidewalk and street-light bulb-outs along one-third of the block of Eighteenth and Nineteenth Streets near the intersections with Illinois Street, and the width of the street along one full block of Illinois Street between Eighteenth and Nineteenth Streets (as shown in Figure 1). The vertical APE extends to a maximum depth of ten feet below the surface along the proposed alignment of the trackway.

Survey Results

The technical memorandum describes the historic properties and historical resources in and adjacent to the APE. Background research was performed to identify historic properties and historical resources including conducting a records search at Northwest Information Center on February 18, 2012. The research indicated that the APE is within the Central Waterfront Planning Area and Potrero Point Historic District. The APE is adjacent to the Pier 70 Historic District to the west. The APE is also in the vicinity of the Dogpatch Historic District, located two blocks to the east.

Based on the previous studies conducted by the San Francisco Planning Department, it was determined that of these three districts, only Pier 70 would be considered eligible for the National Register of Historic Places (NRHP). Pier 70 Historic District, the former site of the Union Iron Works, was determined as eligible for the NRHP under Criterion A for its association with the development of the maritime industry. The district is also eligible for the NRHP under Criterion C as an example of industrial architecture from the late nineteenth century –World War II. Dogpatch was designated as a local district by the City of San Francisco Board of Supervisors, and the Potrero Point Historic District is considered eligible as a local district. Based on the surveys conducted for this project, no historic properties are present within the APE.

Previous studies did not identify any buried deposits of cultural resources within the APE. However, historic archaeological materials may be present in the APE, related to the shipbuilding and ironworking history of the area. Results of a geotechnical investigation conducted in the APE indicate that the immediate vicinity of the proposed project location

consists of Quaternary artificial fill and sand deposits, which may contain historic artifacts. However, the likelihood of encountering pre-contact archaeological materials is low due to the artificial fill deposits and roadway modifications.

Evaluation of Effects

Construction of the proposed project would not affect the adjacent Pier 70 Historic District. There are no historic properties within the APE and the contributing resources to Pier 70 Historic District are located outside of the APE; therefore, there would be no effect to these resources from operation of the project. The addition of catenary wires and other features of the project would not alter the integrity of the district or any contributing resource to the district by changing the location, setting, feeling, workmanship, materials and association or other characteristics that make it eligible for inclusion in the NRHP. The new features would be compatible with the existing setting of tracks and overhead wires and would not be an adverse effect. Noise, dust, and other effects from construction would be temporary and not adverse.

While no known archeological resources were recorded within the APE, the construction of the project may encounter hereto unknown cultural resources. The SFMTA, in consultation with the FTA and SHPO, shall implement appropriate measures for the protection and evaluation of any unanticipated discoveries of cultural resources during construction, as discussed in the attached technical memorandum.

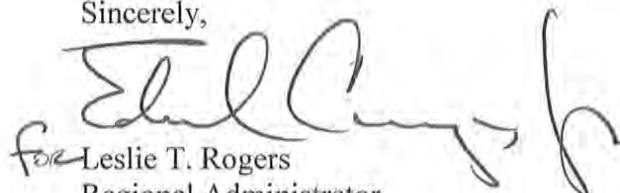
Findings

In accordance with 36 CFR § 800.4, the FTA is requesting your concurrence with the APE and with finding that above historic district is eligible for the NRHP. In accordance with § 800.5, FTA also requests your concurrence with a finding of no adverse effect on historic properties for this undertaking.

Pursuant to 36 CFR § 800.3(c)(4), if we have not heard from your office within thirty days, we will contact your office to address any comments you may have.

If you have any questions, feel free to contact Ms. Mary Nguyen, Environmental Protection Specialist, at (213) 202-3960.

Sincerely,


for Leslie T. Rogers
Regional Administrator

Attachments:

- Attachment 1: Project Map and Site Pictures
- Attachment 2: Technical Memorandum for Cultural Resources



About the Mission Bay Loop

- **Train turnaround on 3rd, 18th Illinois, and 19th Streets**
 - Will accommodate additional service for Central Subway in 2019 (N-Line terminus by 2016?)
- **6-8 trains per hour will use the loop between 7am-6pm**
 - The Loop can also be used during special events (service flexibility)



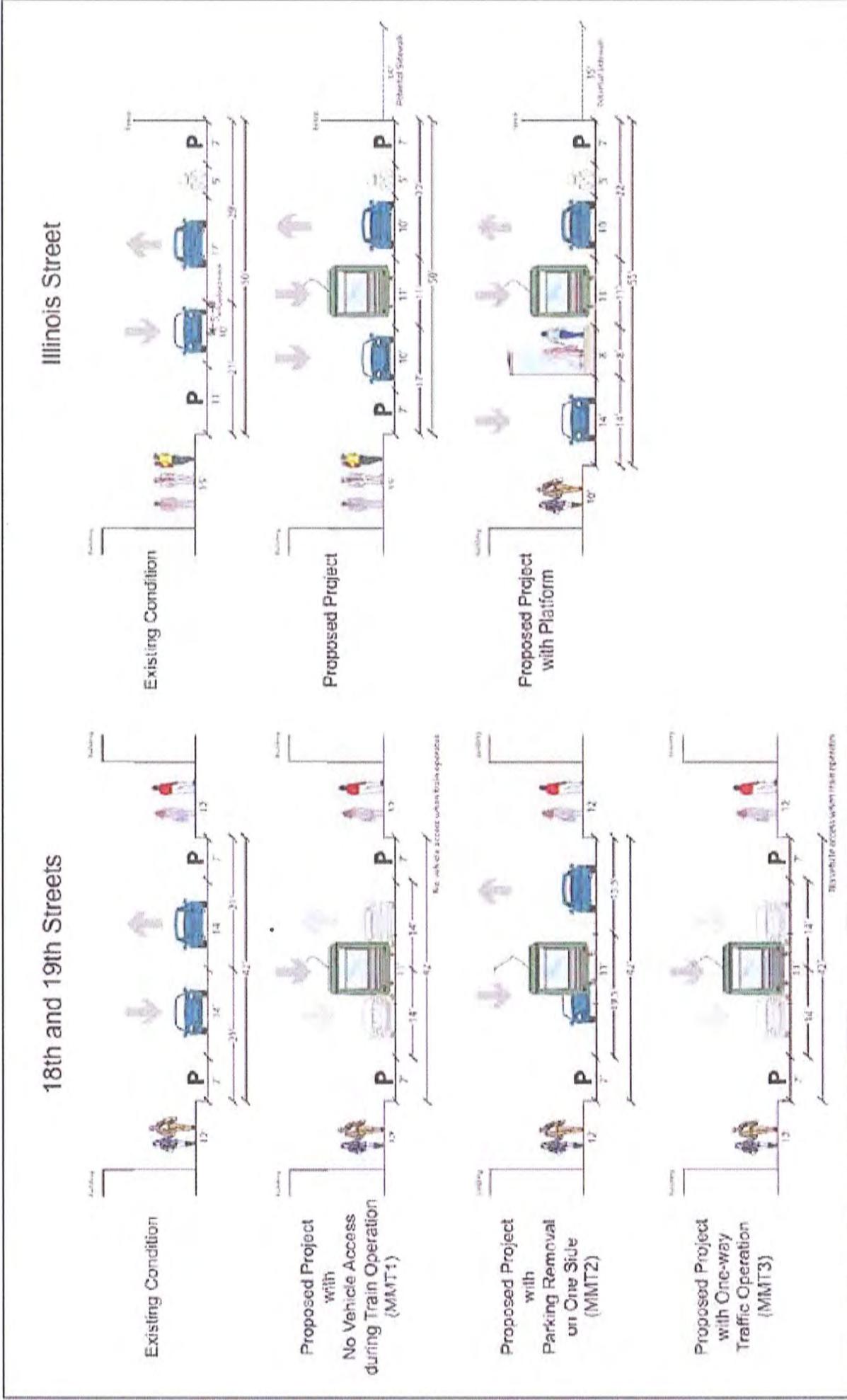


Three Street Alignment Options

- **Signal priority (restrict rights onto 18th from Illinois and from 3rd onto 19th)**
- **Parking removal (one side of street 18th/19th)**
- **One way couplet on 18th and 19th**



Safety Around the Loop

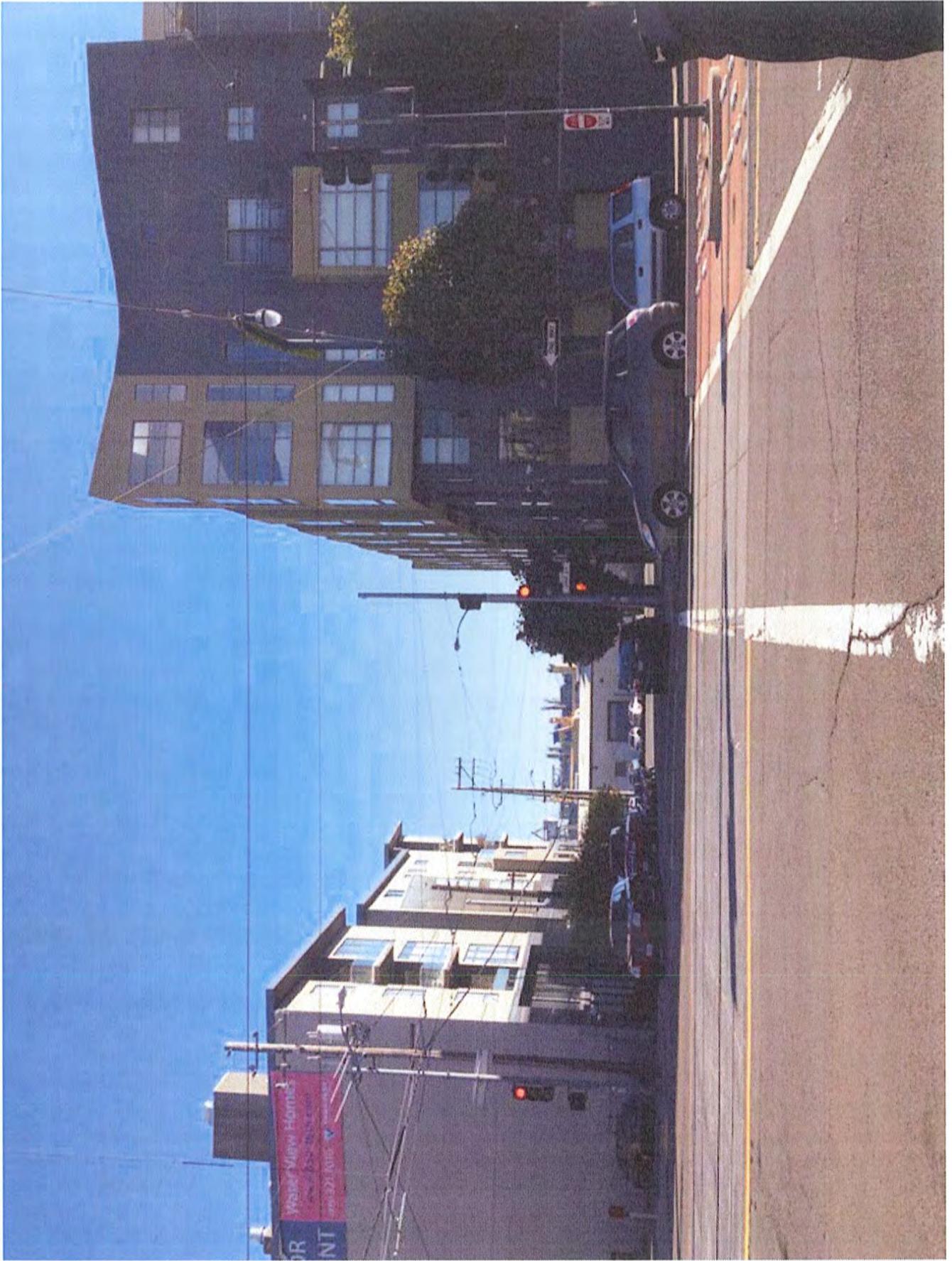


Source: CHS Consulting Group. Data provided by SFMTA.



18th and 3rd

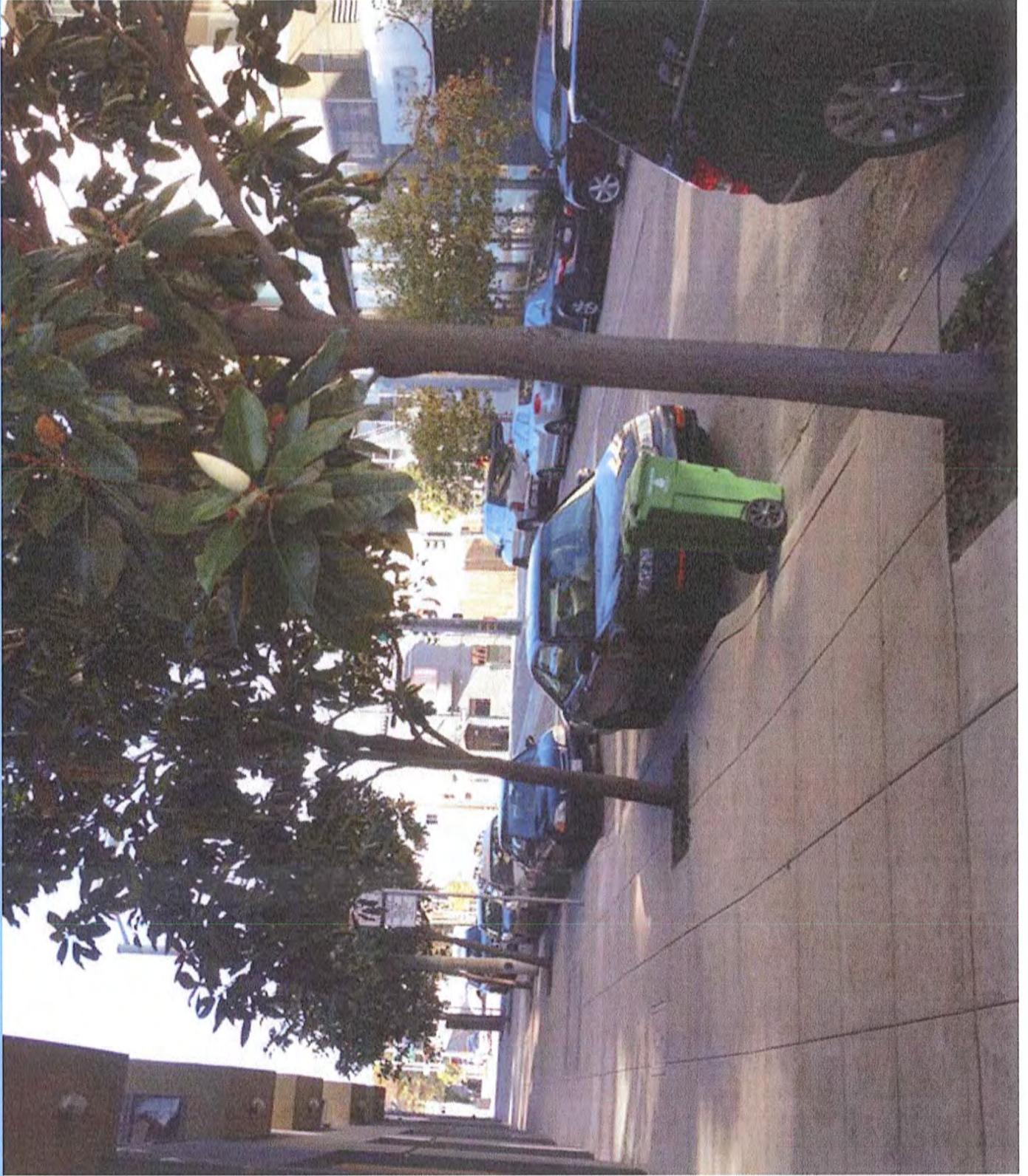
SFMTA
Municipal Transportation Agency





18th and 3rd

SFMTA
Municipal Transportation Agency





18th and Illinois

SFMTA
Municipal Transportation Agency





Illinois looking south

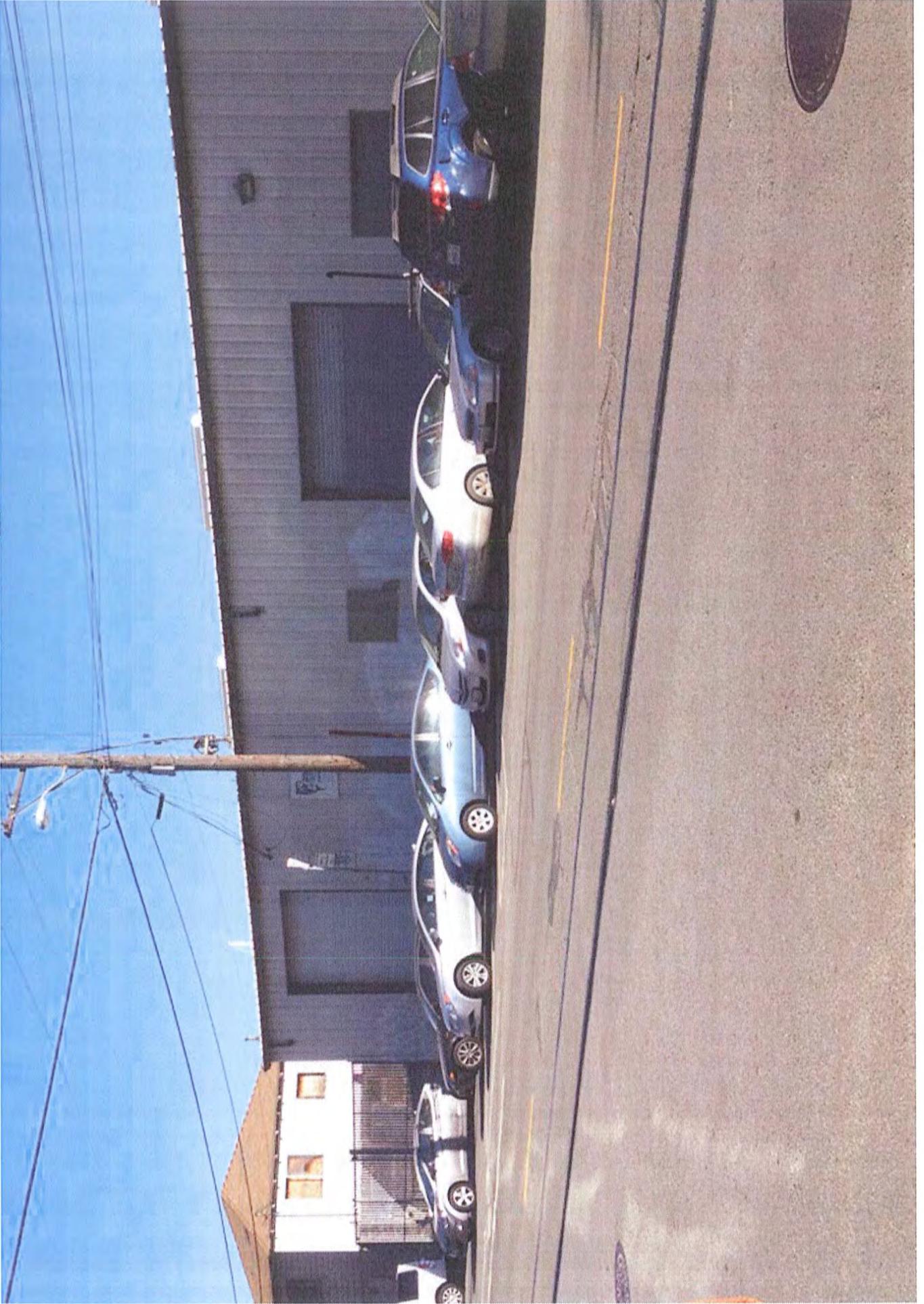
SFMTA
Municipal Transportation Agency





Illinois looking east

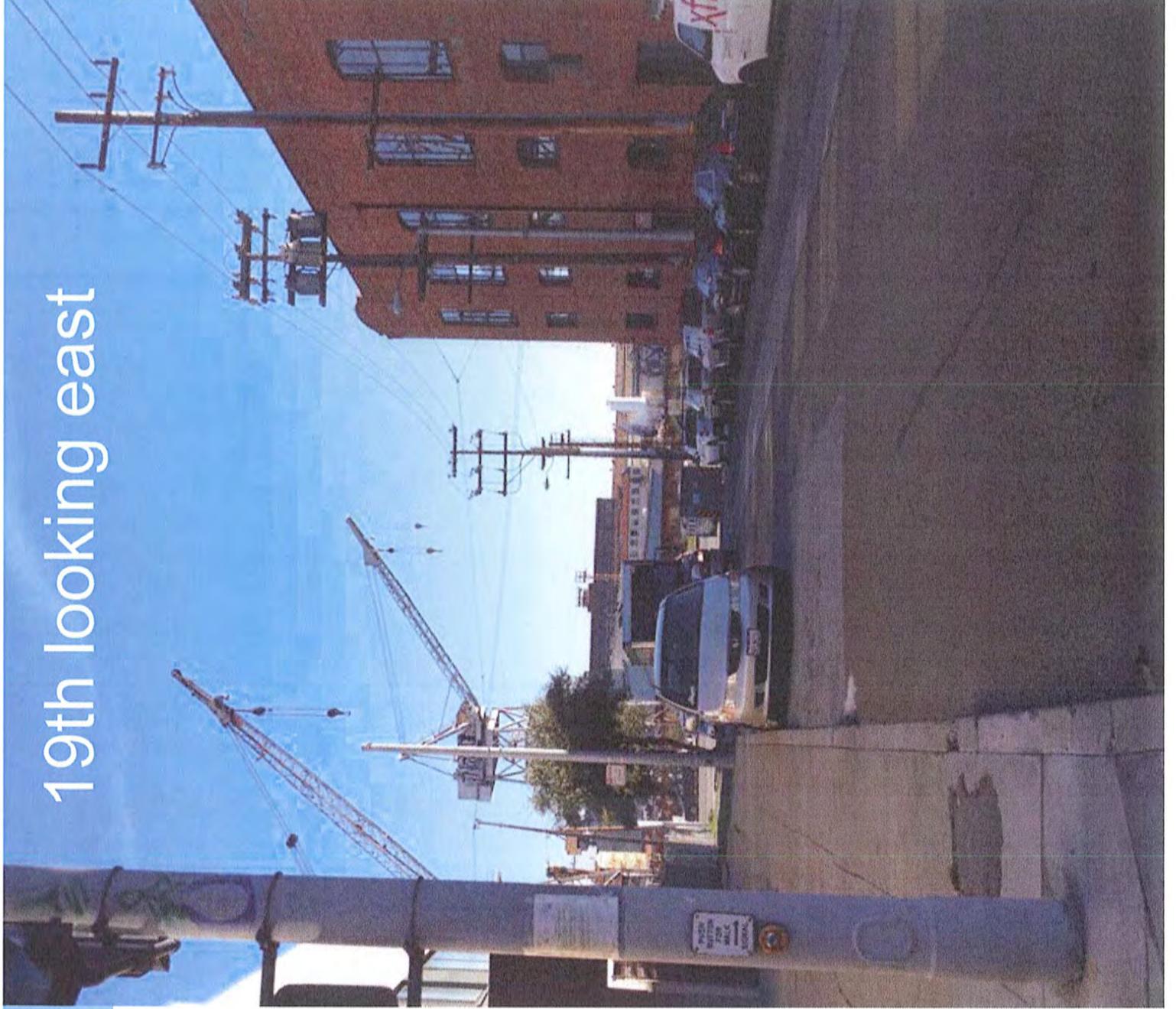
SFMTA
Municipal Transportation Agency





19th looking east

SFMTA
Municipal Transportation Agency



APPENDIX D

NOISE AND VIBRATION ASSESSMENT

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Mission Bay Rail Line

San Francisco, CA

3rd Street Turnaround
13 March 2013

Prepared for:

Dennis Kearny
Ward & Associates

Prepared by:

Charles M. Salter Associates, Inc.

Eric A. Yee
130 Sutter Street, Floor 5
San Francisco, CA 94104
Phone: 415.397.0442
Fax: 415.397.0454
Email: eric.yee@cmsalter.com

CSA Project Number: 13-0008

INTRODUCTION

The SFMTA plans to complete a street car turnaround at 18th and 3rd Street to increase transportation service to the Mission Bay area. The turnaround would allow more Muni street cars in Mission Bay during peak morning and evening hours. These additional trains would increase noise and vibration to residences and business located around 18th and 19th Street between 3rd Street and Illinois.

In 1999, the initial EIS/EIR sited no impacts from the 3rd Street rail line project because there were no residential developments in that area. Since that report, two multi-family projects were completed on 18th Street and a third residential project is currently under construction. In addition to residences, there is also the Dogpatch Campus of the La Scuola Internazionale di San Francisco, an Italian emersion school at the corner of 20th Street and Tennessee Street 400, feet from the project and Pier 70, which is 200 feet from the project.

The FTA asked the SFMTA to update the EA to reevaluate any potential impacts related to the completion of the turnaround. This report summarizes the result of our noise and vibration study to determine any acoustical impacts related to the completion of the Muni street car turnaround at 3rd Street. For those readers unfamiliar with environmental acoustics and vibration, please refer to Attachment A at the end of this report.

ACOUSTICAL CRITERIA

The CEQA guidelines and the FTA contain relevant acoustical and vibration criteria to assess any potential impact from the proposed project.

Acoustical - California Environmental Quality Act (CEQA)

The CEQA guidelines (October 1998) include a checklist of items related to noise and vibration. The checklist asks if the project will exceed any established standards or substantially increase existing ambient noise levels. CEQA defines a substantial increase to be 3 dB or more. A change of more than 5 dB would be noticeable and have potential to cause a community response. For the purpose of this analysis, the increase to noise environment will be compared the Land Use Compatibility Chart from the City's General Plan, Policy 11.1. See Figure 1 below.

Figure 1: Land Use Compatibility Chart

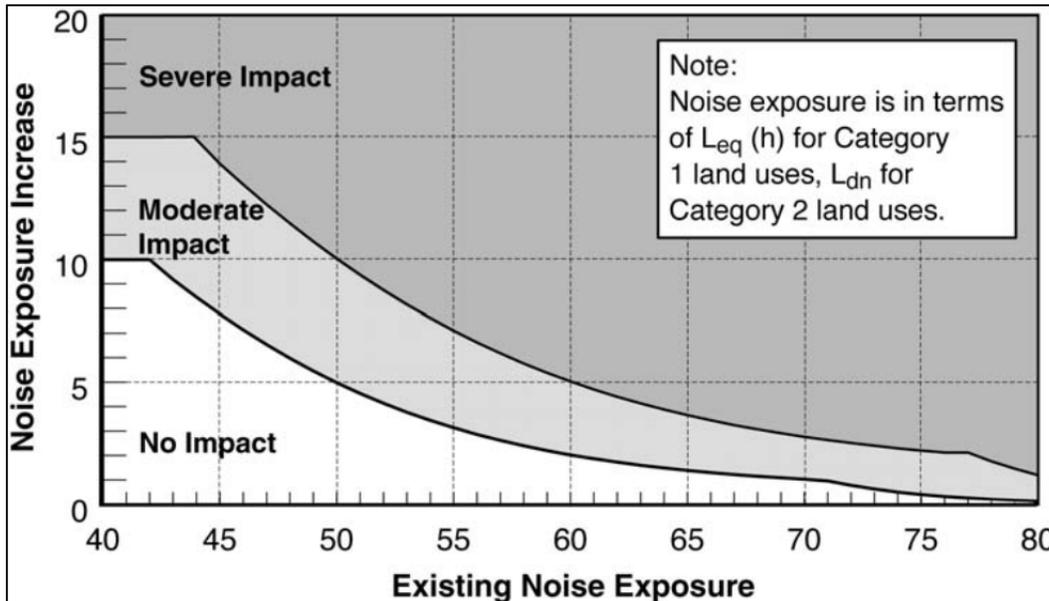
Land Use Category	Community Noise Exposure DNL, (dB)						
	55	60	65	70	75	80	85
Residential - <i>all dwellings, group quarters</i>			Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Transient Lodging - <i>motels, hotels</i>			Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Schools, Libraries, Churches, Hospitals, Nursing Homes, Etc.			Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Auditoriums, Concert Halls, Amphitheaters, Music Shells			Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Sports Arena, Outdoor Spectator Sports			Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Playgrounds, Parks				Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Golf Courses, Riding Stables, Water-Based Recreation Areas, Cemeteries					Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Office Buildings				Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Commercial				Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable

	<p><u>Normally Acceptable</u> Satisfactory, with no special noise insulation requirements</p>
	<p><u>Conditionally Acceptable</u> New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.</p>
	<p><u>Normally Unacceptable</u> New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.</p>
	<p><u>Clearly Unacceptable</u> New construction or development should generally not be undertaken.</p>

Acoustical – Federal Transit Administration (FTA)

The FTA evaluates the noise impact of a project by the noise the project is expected to generate. The greater the existing noise level is the less noise a project can generate before it is considered an impact. The Figure 2¹ illustrates the relation of the existing noise exposure to noise exposure increase.

Figure 2: Noise Impact Levels



Vibration – FTA

For residential uses, the FTA vibration criteria are based on the number of events that occur in one day. The Table 1 below outlines the maximum vibration levels allowed.

Table 1 – Maximum Vibration Velocity

Category	GBV Impact Levels (VdB re: 1 micro-inch/sec)		
	Frequent Events greater than 70	Occasional Events 30-70	Infrequent Events less than 30
Category 2: Residential Land Use	72 VdB	75 VdB	80 VdB
Category 3 Institutional Land – primary daytime use (i.e. schools, piers)	75 VdB	78 VdB	83 VdB

Construction Noise and Vibration – FTA

The FTA has not developed any standardized criteria for evaluating the noise and vibration of construction noise. The FTA states that project specific criteria should be developed unless the local municipality has ordinances that apply.

¹ Excerpted from 3.1.2 “Defining the Levels of Impact” in the FTA Transit Noise and Vibration Impact Assessment May 2006

The City of San Francisco Noise Ordinance contains the following specific noise requirements:

"SEC. 2907. CONSTRUCTION EQUIPMENT.

(a) Except as provided for in Subsections (b), (c), and (d) hereof, it shall be unlawful for any person to operate any powered construction equipment if the operation of such equipment emits noise at a level in excess of 80 dBA when measured at a distance of 100 feet from such equipment, or an equivalent sound level at some other convenient distance.

(b) The provisions of Subsections (a) of this Section shall not be applicable to impact tools and equipment, provided that such impact tools and equipment shall have intake and exhaust mufflers recommended by the manufacturers thereof and approved by the Director of Public Works or the Director of Building Inspection as best accomplishing maximum noise attenuation, and that pavement breakers and jackhammers shall also be equipped with acoustically attenuating shields or shrouds recommended by the manufacturers thereof and approved by the Director of Public Works or the Director of Building Inspection as best accomplishing maximum noise attenuation.

(Amended by Ord. 309-73, App. 8/10/73; Ord. 278-08, File No. 081119, App. 11/25/2008)

SEC. 2908. CONSTRUCTION WORK AT NIGHT.

It shall be unlawful for any person, between the hours of 8:00 p.m. of any day and 7:00 a.m. of the following day to erect, construct, demolish, excavate for, alter or repair any building or structure if the noise level created thereby is in excess of the ambient noise level by 5 dBA at the nearest property plane, unless a special permit therefor has been applied for and granted by the Director of Public Works or the Director of Building Inspection."

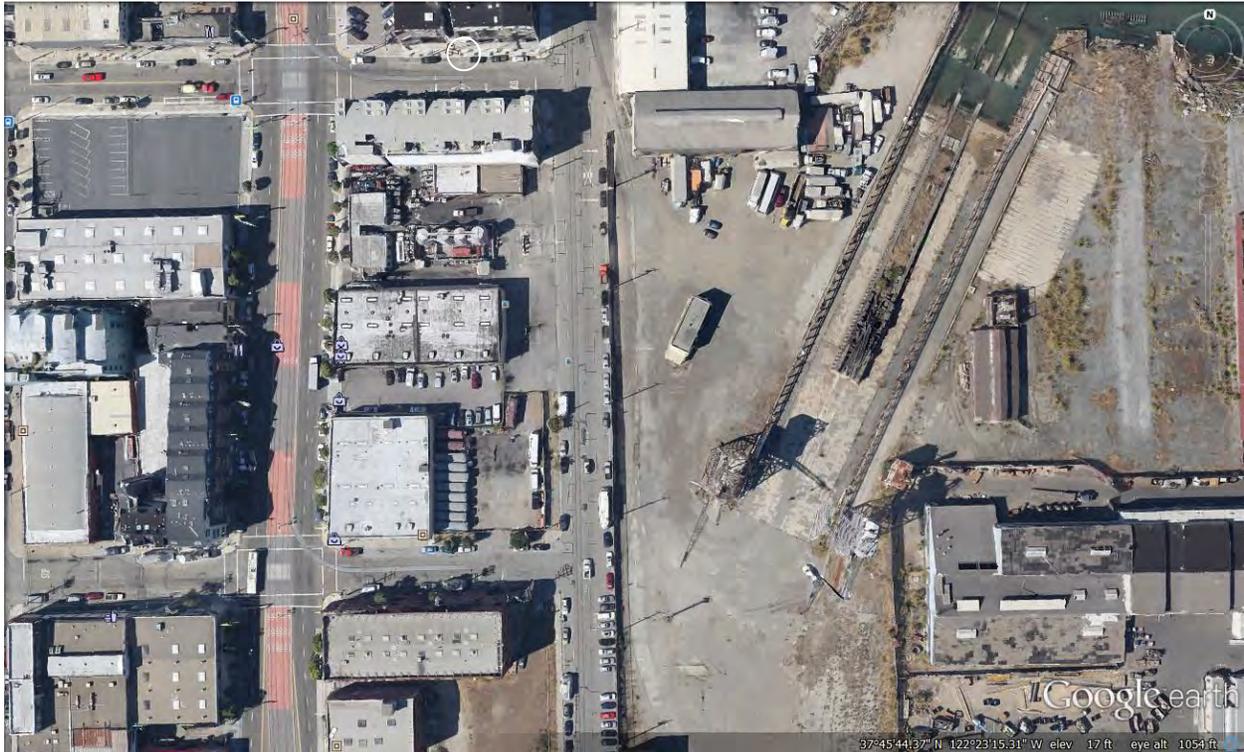
For construction induced vibration levels, the FTA applies the same criteria as those stated in Table 1. Though, the FTA emphasizes the potential damage to adjacent structures due to excessive vibration levels more than the annoyance factor when reviewing construction related vibration.

EXISTING NOISE MEASUREMENTS

Project Site Existing Conditions

On 8 January, three sound level meters were set up for 72 hours to measure the existing ambient noise along 3rd Street, 18th Street, and Illinois Street. Each of these streets has a residential façade that would be exposed to the future street car activity. These meters were hung on power poles 12 feet above the ground and measured the background noise levels in terms of the day-night average sound level (DNL or Ldn) as well as the peak hour average sound level (Leq). Figure 3 shows the location of these meters.

Figure 3 Noise Measurement Locations



The results of these measurements are summarized in Table 2 and Table 3 below.

Table 2. Existing Ambient Noise Levels (DNL)

Location	Description	DNL per Day		
		01-08-2013	01-09-2013	01-10-2013
1	20 feet from centerline of 18 th Street	72 dB	71 dB	71 dB
2	45 feet from centerline of 3 rd Street	76 dB	76 dB	76 dB
3	25 feet from centerline of Illinois Street	71 dB	71 dB	71 dB

Locations 2 and 3 were located away from 18th street to minimize noise contamination from the current construction project.

Table 3 Existing Ambient Noise Levels (max Leq)

Location	Description	Peak Hour Leq per Day		
		01-08-2013	01-09-2013	01-10-2013
1	20 feet from centerline of 18 th Street	72 dB	72 dB	72 dB
2	45 feet from centerline of 3 rd Street	76 dB	78 dB	75 dB
3	25 feet from centerline of Illinois Street	69 dB	70 dB	69 dB

Street Car Noise and Vibration Measurements

On 11 January 2013, Salter and Associates measured noise and vibration of street cars turning at Channel Street and 3rd Street to estimate the increase in noise at the project site. Noise and vibration monitoring equipment were deployed at 30 feet to the centerline of both tracks. The near track (or outbound line) was 20 feet from our measurement location. The far track (or inbound line) was 40 feet from our measurement location. The results of our measurements are summarized in Table 4.

Table 4 – Noise and Vibration Results of Turning Streetcars

Time	Notes	Inbound (40 Feet from Measurement Location)		Outbound (20 Feet from Measurement Location)	
		Noise (dBA)	Vibration (VdB)	Noise (dBA)	Vibration (VdB)
9:12		74	60		
9:25				74	67
9:26		74	67		
9:31					75
9:37				77	75
9:44				76	69
9:57		76	70		
9:59				80	76
10:05	Bell ringing			85	76
10:08		75	68		
10:17		76	71		
10:20	Screeching breaks			91	76
10:24				81	74
10:29		74	67		
10:33	Trolley Style			92	84
10:48				82	72

DAILY OPERATIONS

Noise Analysis

The project is located next to two existing residential buildings with a third residence currently under construction. Additionally, La Scuola Internazionale di San Francisco is located one block south and one block west on 20th Street. The DNL around the project site ranges from 71 dB to 76 dB with the peak hour Leq reaching 70 dB to 78 dB. Based on the FTA guidance, when existing noise levels are 70 dB or higher, an increase less than 1 dB constitutes no impact; an increase of 1 dB constitutes a moderate impact and an increase of 3 dB constitutes a severe impact for both the DNL and peak hour Leq. CEQA threshold for significant impact is 3 dB or more regardless of background noise level.

Using the average outbound noise level (i.e. the receiver is 20 feet from the noise source), we calculated the noise increase due to the new turn around with the following assumptions:

1. SFMTA estimates that the turnaround loop will support 6 -8 light rail vehicles per hour between 7:00 a.m. and 6:00 p.m. with an estimated 77 total street cars.
2. All of these events would occur during weekday operations to increase service to Mission Bay.

At the Residences

- Finding: **No Impact.**

Noise increase on the residences due to project is less than 1 dB to both the DNL and peak hour Leq. The noise contribution of 6-8 light rail vehicles per hour during peak hours do not significantly elevate the existing noise levels.

At the School

- Finding: **No Impact.**

Noise increase on the school due to the project is less than 1 dB to both the DNL and peak hour Leq. The school is over 400 feet from the new rail project. At this distance, project-generated noise will be below the FTA and CEQA guidelines.

Vibration Analysis

The FTA guideline for vibration guidelines depends on the number of events in one day. For this study, the SFMTA plans 77 additional events per day placing the project in the frequent category for events. The FTA recommends that events not exceed 72 VdB, which corresponds to the threshold of human vibration detection.

When measuring streetcar pass bys at 3rd Street and Channel Street, the inbound rail line (40 feet from receiver) closely matches the distance of the new turn around rail line that turns left onto 18th Street. The outbound rail line (20 feet from receiver) closely matches the distance as the new rail line turns right onto Illinois and onto 19th Street.

Based on FTA prediction methodology, measured vibration levels experience gains and losses in energy due to foundation coupling (that is how the receiver buildings are attached to the ground), floor-to-floor propagation (how high the building is), and building resonance. For this report, we have assumed these factors contribute to a 4-VdB reduction over the measured vibration levels based on the FTA methodology. The predicted vibration levels from rail activity in the residences would be the stated values of Table 4 minus 4 VdB. The maximum levels measured for most regular streetcars would be 72 VdB or lower.

At Residences

When the correction factor is applied, the predicted vibration levels in the nearby residences should conform to the FTA vibration guideline of 72 VdB based on our measurements.

- Finding: **No Impact.**
Vibration levels of rail activity generally comply with the FTA guidelines. One streetcar exceeded the FTA vibration guideline of 72 Vdb. Vibration levels from this streetcar represent an anomaly. This car was the historic "trolley" style and may have had more wearing at the wheels or have a longer wheel base.

At the School

The school is over 400 feet from the new rail project. At this distance, project-generated vibration will be below the stated FTA guideline 75 VdB.

- Finding: **No Impact.**
Vibration levels of rail activity comply with the FTA guidelines.

At Pier 70 Historic District

The nearest applicable structures of Pier 70 are 200 feet from the new rail project. At this distance, project-generated vibration will be below the stated FTA guideline 75 VdB.

- Finding: **No Impact.**
Vibration levels of rail activity comply with the FTA guidelines.

Optional Mitigation

Even though our measured events comply with the FTA guidelines, an occasional streetcar activity could exceed them. Factors that affect the vibration levels are the condition of the wheels and rail lines as well as the speed of the street car. Wheels and rail lines should be reviewed and maintained according a regular schedule. Speeds of street cars should be kept under 5 mph to lower vibration velocity specially when turning corners.

In particular, the trolley style street car generated noise levels exceeding the limit of the FTA guidelines. Possible reasons for increased vibration include worn wheels, higher speed, or different wheel base. To prevent this event from happening, SFMTA should not use trolley style street cars on the turnaround.

PROJECT CONSTRUCTION

Noise Analysis

Based on the review of the project site plan, demolition and new construction may occur as close as 20 feet to residences and the private school. Construction typically happens in phases over the course of several months. Table 5 lists construction noise levels at a distance of 50 feet by phase. These data are based on data for similar construction activities and published data.

Table 5: Typical Noise Levels of Construction Activities

Phase	Leq (dB) at 50 Feet ^{i,ii,iii}	Leq (dB) at 20 Feet
<u>Demolition</u>		
Earthmoving	90	98
Excavation	90	98
Grading	80	88
<u>Pre-Construction</u>		
Materials staging	85	93
Site Preparation	90	98
<u>Construction</u>	See Table 7	

A list of construction equipment is provided in Table 7 below. Based on data from other construction noise monitoring projects, typical noise levels generated by each piece of equipment are summarized in Table 6.

Table 6: Typical Noise Levels of Construction Equipment

Equipment Type	Sound Level (dB) at 50 feet ²	Sound Level at 20 feet
Backhoe	85	93
Excavator	84 to 86	92 to 94
Demolition Bed Dump Truck	88	96
Compactor	88	96
10 Wheel Dump Truck	85	93
Loader	78 to 84	86 to 92
Concrete Truck	82 to 86	90 to 94
Concrete Pump	82 to 86	90 to 94
Air Compressor	81	89
Welding Machine	73	81
Concrete Saw	83	91
Truck Back-up Beeper	76	84

At Residences

Although construction may cause short-term elevated noise levels, it is typically constrained to specific hours based on the City's zoning restrictions. According to the City's Noise Ordinance, certain construction equipment noise should not exceed 80 dB when measured at 100 feet. Since construction is located at 20 feet, the allowable noise limit would be increased to 94 dB at 20 feet. Construction is to be done between the hours of 8:00 a.m. to 7:00 p.m.

The construction sequencing and equipment list have not yet been generated. It is likely that the elevated demolition and construction noise levels would at times exceed the San Francisco Noise Ordinance constituting a short-term significant impact.

At the School

La Scuola Internazionale di San Francisco is located over 400 feet from the project site. The school is also partially shielded by other existing buildings. Construction noise should be reduced at least 20 dB from the stated source levels. These levels would comply with the San Francisco Noise Ordinance.

Mitigation

The following noise control and management measures should be considered prior to construction.

An owner or contractor Noise Disturbance Coordinator should be appointed to act as a liaison between the SFMTA and adjacent neighbors. The Disturbance Coordinator responsibilities and authority should be as follows:

1. Familiarity with the project and construction schedule, including attending weekly construction meetings.
2. An active role in monitoring project compliance with respect to noise.

² CSA Projects 98-0352 and 01-0109, and Page 58 in "Acoustics", Charles M Salter Associates, 1998

3. Consider rescheduling noisy construction activities to minimize effects on surrounding noise sensitive receivers.
4. Site supervision of all potential sources of noise (e.g., material delivery, shouting, debris box pick-up and delivery) for all trades.
5. Intervene or discuss mitigation options with contractor.

The General Contractor should implement the following construction noise mitigation measures:

1. All internal combustion engine-driven construction equipment should be equipped with the best available mufflers and kept in good condition.
2. When feasible, "quiet" gasoline or electric-powered compressors should be used.
3. When feasible electric rather than gasoline or diesel-powered forklifts should be used. However, we understand that the load demands cannot be handled by electric lifts.
4. Where feasible, welded rather than bolted steel connections should be used when possible to minimize the use of impact wrenches.
5. Where possible, barriers should be erected around stationary noise generating operations.
6. Construction vehicles should be required to turn off engines and compressors when not in operation.
7. Define truck routes to confine noisy trucks to streets that currently have the heaviest traffic. We understand that these routes will be determined by the City's Planning Department
8. Where feasible, develop a truck staging area away from acoustically sensitive areas.
9. Use structural steel frames in lieu of concrete structural frames to yield a much shorter assembly time.
10. Retain an acoustical consultant to periodically measure noise levels and provide assistance with developing additional noise attenuation techniques where needed.
11. Where reasonable, avoid hammer drilling; use core bits, instead.
12. Where possible, avoid using powder-actuated fasteners; use concrete screws, instead.
13. The General Contractor should maintain awareness among all trades of the noise sensitivity of project.

Vibration Analysis

The construction plan includes the removal of old rail lines and ties, excavating the ground to lay the foundation for new rail lines, and compacting the finished road once the new rail lines are installed. These activities will likely be some of the largest contributors of ground-borne vibration to the adjacent land uses. Table 7 lists typical construction activities (and their associated vibration levels) that may be used for the construction of this project.

Table 7: Typical Vibration Levels for Construction

Equipment	Approximate Vibration Level (VdB) at 25 feet ³
Jack Hammer	79 VdB
Small Bulldozer	58 VdB
Vibratory Roller	94 VdB
Loaded Trucks	86 VdB

The most sensitive vibration receivers are the residences located within 25 feet of the project. Additionally, Pier 70 which is eligible for listing on the NRHP as a historic district is located east of the project and La Scuola Internazionale di San Francisco located 400 feet south west of the project.

³ Data sourced from Section 12.2 of the FTA Transit Noise and Vibration Impact Assessment May 2006

Vibration levels may be elevated above the FTA guidelines during certain times of construction. These levels constitute an adverse effect.

Residences

Because of the residences' close proximity to the construction, these levels would exceed the FTA vibration guidelines and constitute an adverse effect.

Pier 70 Historic District

The primary concern at Pier 70 is the potential damage excessive vibration can cause to historic structures. The closest structures at Pier 70 are located 200 feet from the project. Vibration damage typically is dependent on the buildings' construction method. This report assumes the historic buildings are extremely susceptible to vibration damage when levels exceed 90 VdB⁴.

La Scuola Internazionale di San Francisco

The school is over 400 feet away and would not be directly impact by construction. However, trucks removing debris or bringing materials to the project site should be appropriately routed away from all sensitive receivers.

Mitigation

The following measures should implemented as part of the construction plan to reduce vibration levels at the adjacent residences and other sensitive receivers:

1. Route heavily loaded trucks away from sensitive receivers.
2. Phase demolition so that earth-moving and ground-impacting activities do not happen at the same time.
3. Conduct these activities during the permitted daytime hours.
4. Minimize demolition activities that incorporate ground-impacting operations.
5. Do not use vibratory rollers and packers near sensitive receivers.

CONCLUSION

The Mission Bay Loop will increase the number of trains and introduce new train noise to the residential projects along 18th Street. However, the overall noise increase is expected to be less than 1 decibel and the daily operations should not create a significant impact. The vibration from street car activity should also comply with the FTA guidelines provided the streetcars and tracks are maintained in good working order. Operators must keep their speeds under 5 mph to reduce the risk of increased vibration levels.

The construction of the Mission Bay Loop may temporarily increase noise and vibration levels above those in the FTA guidance. Limiting construction to the hours per the San Francisco Noise Ordinance and following the prescribed mitigation should help reduce adverse effects on adjacent land uses.

⁴ Vibration velocity level sourced from Section 12.2 of the FTA Transit Noise and Vibration Impact Assessment May 2006

Bibliography

ⁱ "Kaiser Medical Center, San Francisco – North Wing Addition Construction Monitoring Program," Charles M. Salter Associates, Inc., February 1989-August 1991.

ⁱⁱ "Construction Noise in California," California Research, February 1976.

ⁱⁱⁱ "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances," U.S. Environmental Protection Agency, 31 December 1971.

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APPENDIX E

NOTICE OF PUBLIC MEETING

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Mission Bay Loop Public Meeting
Reunión Pública sobre el Proyecto de Tránsito en Mission Bay
米慎灣街車迴圈公開會議

Please join us to discuss the Mission Bay Loop Transit Project.

In 2007, the San Francisco Municipal Transportation Agency (SFMTA) began Third Street T-Line service between Embarcadero and Sunnydale. Upon completion of the Central Subway, the Mission Bay Loop will allow for more frequent service between Mission Bay, SOMA and Chinatown by finishing the train turnaround at Third, 18th, 19th and Illinois Streets. Transit frequency south of Mission Bay will also be increased.

SFMTA is now completing the required federal Environmental Assessment. We are eager to hear your thoughts about the project and to update you on the proposed schedule, with construction anticipated for 2014.

Please join us!

FEBRUARY 11, 2013
Monday, 6-7:30 PM

Meeting Location:
654 Minnesota Street
3rd Floor, Tivoli Room 
San Francisco, CA 94107

FOR MORE INFO, CONTACT:

Peter Brown
San Francisco Municipal Transportation Agency
(415) 701-5485 peter.brown@sfmta.com

中文詢問請電 : (415) 558-6282
Para información en Español llamar al: (415) 701-5485

This public meeting made possible in part by the San Francisco County Transportation Authority through a grant of Proposition K Local Transportation Sales Tax funds.



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APPENDIX F

DISTRIBUTION LIST

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Distribution List: Agencies, Organizations, and Interested Parties

Agencies and Organizations		
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Western Regional Office Advisory Council on Historic Preservation 730 Simms Street, No. 410 Golden, CO 80401 202-606-8503 achp@achp.gov	Marian Lee Planning and Development SAMTRANS PO Box 3006 San Carlos, CA 94070 650-508-6200	Bijan Sartipi District Director Caltrans District 4 PO Box 23660 Oakland, CA 94623 510-286-4444
Grace Crunican General Manager BART 300 Lakeside Drive Oakland, CA 94612 510-465-2278	Andre Boutros Executive Director California Transportation Commission 1120 N Street No. 2231 Sacramento, CA 95814 916-654-4245	Joseph Steinberger Principal Environmental Planner Bay Area Air Quality Management 939 Ellis Street San Francisco, CA 94109 415-749-5018
Grants Coordination State Clearinghouse Office of Planning and Research P.O. Box 3044, Room 222 Sacramento, CA 95812 916-445-0613	USEPA Region 9 Office of Federal Activities Environmental Protection Agency 75 Hawthorne Street San Francisco, CA 94105	John Rahaim Director City and County of San Francisco Planning Department 1650 Mission Street No. 400 San Francisco, CA 94103 415-558-6378
David J. Armijo General Manager A.C. Transit District 1600 Franklin Street Oakland, CA 94612 510-891-4777	Debbie Treadway Native American Heritage Commission 915 Capitol Mall, Room 364 Sacramento, CA 95814 916-653-4082 nahc@pacbell.net	
Interested Local and Neighborhood Parties		
Jacqueline and Joel Bean 700 Illinois Street, Unit 201 San Francisco, CA 94107	Jeff Grube 700 Illinois Street, Unit 101 San Francisco, CA 94107	Robyn Mutobe 11731 Harlan Rd Dublin, CA 94568
Oliver and Sanny Ryan 700 Illinois Street, Unit 202 San Francisco, CA 94107	Bill Schwartz 700 Illinois Street, Unit 203 San Francisco, CA 94107	Randy Thueme 156 South Park San Francisco, CA 94107

Distribution List

First Name	Last Name	Street	City	State	Zip Code	Email	Phone
Jacqueline	Bean	700 Illinois Street, Unit 201	San Francisco	CA	94107	jfbean46@gmail.com	
Joel	Bean	700 Illinois Street, Unit 201	San Francisco	CA	94107	jdbean46@gmail.com	
Mary	de Jesus					abiatha15@gmail.com	
Rod	Fleming					rod33319@gmail.com	
Jeff	Grube	700 Illinois Street, Unit 101	San Francisco	CA	94107	ejgrube@gmail.com	415-317-7711 (cell)
Rishi	Gupta					rgupta5084@gmail.com	
Shane	Mayeur					Shane.mayeur@gmail.com	
Robyn	Mutobe	11731 Harlan Rd	Dublin	CA	94568	rmutobe@yahoo.com	
Oliver	Ryan	700 Illinois Street, Unit 202	San Francisco	CA	94107	oliryan@me.com	
Sanny	Ryan	700 Illinois Street, Unit 202	San Francisco	CA	94107	sanny721@yahoo.com	
John	Schmaelzle					schmaelzle@sbcglobal.net	
Bill	Schwartz	700 Illinois Street, Unit 203	San Francisco	CA	94107	billschwartz@idiom.com	415-291-8655
Earl	Shaddix					earlybirdsf@gmail.com	
Randy	Thueme	156 South Park	San Francisco	CA	94107	randy@randythuemedesign.com	415-495-1178 / 415-505-4364 (cell)
Chris	Waddling					cawaddling@gmail.com	
Donna	Wei					ddwei16@gmail.com	
Corinne	Woods					Corinnewoods@cs.com	
						abiatha15@gmail.com	
						anietie@yahoo.com	
						carterstacey@msn.com	
						clincy@yahoo.com	
						deecastellani@gmail.com	
						diegorsanchez@yahoo.com	
						j.k.tu@sbcglobal.net	
						jannovo@comcast.net	
						karosf@hotmail.com	
						lyslynn@bayviewmagic.org	
						mlsev@yahoo.com	
						rebeccamgallegos@me.com	
						rufusdavisjr@comcast.net	
						schen@scrap-sf.org	
						tanja@myteamsf.com	
						tutgraphics@yahoo.com	



SAN FRANCISCO PLANNING DEPARTMENT

ENVIRONMENTAL EVALUATION APPLICATION COVER MEMO - PUBLIC PROJECTS ONLY

In accordance with Chapter 31 of the San Francisco Administrative Code, an appeal of an exemption determination can only be filed within 30 days of the project receiving the first approval action.

Please attach this memo along with all necessary materials to the Environmental Evaluation Application.

Project Address and/or Title:	Mission Bay Loop
Funding Source (MTA only):	
Project Approval Action:	n/a
Will the approval action be taken at a noticed public hearing? <input type="checkbox"/> YES* <input checked="" type="checkbox"/> NO	
* If YES is checked, please see below.	

IF APPROVAL ACTION IS TAKEN AT A NOTICED PUBLIC HEARING, INCLUDE THE FOLLOWING CALENDAR LANGUAGE:

End of Calendar: CEQA Appeal Rights under Chapter 31 of the San Francisco Administrative Code If the Commission approves an action identified by an exemption or negative declaration as the Approval Action (as defined in S.F. Administrative Code Chapter 31, as amended, Board of Supervisors Ordinance Number 161-13), then the CEQA decision prepared in support of that Approval Action is thereafter subject to appeal within the time frame specified in S.F. Administrative Code Section 31.16. Typically, an appeal must be filed within 30 calendar days of the Approval Action. For information on filing an appeal under Chapter 31, contact the Clerk of the Board of Supervisors at City Hall, 1 Dr. Carlton B. Goodlett Place, Room 244, San Francisco, CA 94102, or call (415) 554-5184. If the Department's Environmental Review Officer has deemed a project to be exempt from further environmental review, an exemption determination has been prepared and can be obtained on-line at <http://sf-planning.org/index.aspx?page=3447>. Under CEQA, in a later court challenge, a litigant may be limited to raising only those issues previously raised at a hearing on the project or in written correspondence delivered to the Board of Supervisors, Planning Commission, Planning Department or other City board, commission or department at, or prior to, such hearing, or as part of the appeal hearing process on the CEQA decision.

Individual calendar items: This proposed action is the Approval Action as defined by S.F. Administrative Code Chapter 31.

THE FOLLOWING MATERIALS ARE INCLUDED:

- 2 sets of plans (11x17)
- Project description
- Photos of proposed work areas/project site
- Necessary background reports (specified in EEA)
- MTA only: Synchro data for lane reductions and traffic calming projects



SFMTA
Municipal
Transportation
Agency

Edward M. Lee, Mayor

Tom Gallo, Chairman

Gwyroeth Borden, Director

Jerry Lee, Director

Christina Rutke, Director

Cheryl Berman, Vice Chairman

Malcolm Hancock, Director

Joel Ramos, Director

Edward D. Reiss, Director of Transportation

MEMORANDUM

TO: Jeanie Poling

FROM: Jerry Robbins

DATE: August 15, 2014

SUBJECT: Environmental Review for the Mission Bay Loop

The Planning Department issued the attached environmental review of the Mission Bay Loop project in October 2012 (case number 2012.1282E). The Mission Bay Loop project was initially reviewed in the Third Street Environmental Impact Report (case number 1996.281E.) Since it has been nearly two years since the attached environmental clearance was issued, the SFMTA requests that this project's environmental clearance be reviewed in light of current plans for the surrounding area.

Background:

The Mission Bay Transit Loop (the Loop) will provide turn-around capabilities for the T-Third light rail line through a connection from Third Street to 18th, Illinois, and 19th streets. The Loop would afford the southbound train the ability to turn left on 18th Street, travel around the block via Illinois Street and 19th Street, and make the right turn to go northbound on Third Street. The Loop would allow trains to turn around for special events (e.g., special events, concerts, street fairs) and during peak periods to meet the projected service needs in the Central Subway Corridor, including the Chinatown, Mission Bay, and SOMA neighborhoods. Allowing half of the trains on the T-Third line to turn around at the Loop will not affect performance for residents of Hunters Point and those living along the 3rd Street corridor because additional train capacity will be added to the turn-around route as part of the Central Subway project.

SFMTA constructed the turnouts from Third Street in 2003 and completed testing in 2006. The turnouts extend over two-thirds of the block on 18th and 19th Streets towards Illinois Street. The new track work for the loop will connect to these turnouts.

Scope of Contract:

Work to be performed for the Project includes, but is not limited to, the following:

- Track work using a paved direct fixation system.
- Overhead Catenary System (OCS), including trolley poles and foundations, guy wires and contact wire.
- Roadway, sidewalk and curb ramp work, including AC grinding and paving.

- Vehicle Tagging System (VTS), including loops, conduit, pull boxes, ground rods, wire and cable, cabinets and bollards.
- Rail bonding.
- Street lighting work, including conduit, pull boxes, ground rods, and wire.
- Traction power work, including conduit and cable.
- Traffic signal work, including poles, mast arms, signals, conduits, pull boxes, wire and cable, controllers and bollards.
- Sewer work, including force and gravity mains, steel casings, culverts, manholes and catch basins.

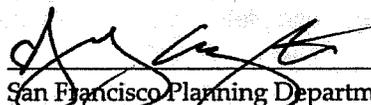
Current Plans:

The major change in land use plans that has occurred in the vicinity of the Loop since 2012 is the proposal to construct an 18,000 seat arena for the Golden State Warriors basketball team at the northeast corner of 3rd and 16th streets. The proposed arena will generate demand for increased transit use along 3rd Street, particularly between downtown and 16th Street. Constructing the Loop would complement the arena by providing an area for light rail vehicles to turn around just south of the arena, allowing for increased transit service within the high-demand area of the corridor between Market and 16th streets as well as storage of light rail transit vehicles just south of the arena prior to the end of arena events for quick response to post-event surges in transit demand. On the other hand, the Mission Bay Loop would result in some storage of transit vehicles in one of the two southbound traffic lanes of Illinois Street between 18th and 19th streets. This could potentially be detrimental to traffic flow on southbound Illinois Street after special events. However, traffic volumes on southbound Illinois Street are generally light except after the end of special events at AT&T Park. It is likely that storage of light rail vehicles on Illinois Street would be minimal during the post-event period as these light rail vehicles would be put into service to carry post-event transit demand surges that would occur simultaneous to post-event traffic surges for either AT&T Park or the proposed arena.

The SFMTA seeks your concurrence that the project does not meet any of the requirements listed under the Section 15162 (a)-(d) for the preparation of a subsequent EIR, Section 15163 (a)-(e) for the preparation of a supplement to an EIR, or Section 15164 (a)-(e) for an addendum to an EIR, under the State CEQA Guidelines and that no further environmental review for the Loop would be necessary.

attachment

The Project was evaluated in the Third Street Light Rail Project Final Environmental Impact Report (FEIR), certified by the San Francisco Planning Commission on December 3rd, 1998. No further assessment is required.

 8/27/14
San Francisco Planning Department
Environmental Planning

Edwin M. Lee | Mayor
Tom Nolan | Chairman
Cheryl Brinkman | Vice-Chairman
Leona Bridges | Director
Malcolm Heinicke | Director
Jerry Lee | Director
Joel Ramos | Director
Cristina Rubke | Director
Edward D. Reiskin | Director of Transportation

MEMORANDUM

TO: Monica Pereira
FROM: Rana Ahmadi
SUBJECT: Environmental Review for the Mission Bay Loop Project
DATE: October 3, 2012

The Mission Bay Loop Project "the Loop" is a short-turn loop from the Muni T Third light rail line (T Third) to the east of Third Street. The Loop is intended to provide more frequent transit service to the Mission Bay area. The Loop would provide turnaround capabilities for the T Third through a connection from Third Street to 18th, Illinois, and 19th streets.

The current T Third runs at 10-minute interval on weekdays between 8:00 AM and 5:00 PM. Between 5:00-8:00 PM the T Third runs every nine minutes. Between 8:00 PM and 12:00 midnight the T Third runs every 15 minutes. On the weekend T Third runs every 12 minutes from 8:00 AM to 2:00 PM and every 20 minutes between 2:00 PM and midnight. The Loop would not affect the frequency of the service for the entire stretch of the T Third from the Caltrain Station at 4th and King streets to the Sunnysdale Station in the south. The Loop would however double the frequency of T Third from this point to the north.

The Loop was designed to respond to the increased ridership demand of the Mission Bay development area. The Loop was reviewed and analyzed in the Environmental Impact Report and Environmental Impact Statement (EIR/EIS) for the Third Street Light Rail Project Phase 1. The EIR was certified in 1999 and the Record of Decision (ROD) for this project was issued in 1999.

Page 2-27 of the EIR/EIS describes the Loop under the built alternative. Figure 2 on page 2-17 of the EIR/EIS shows the Loop as the "Light Rail Short Turn".

Since the certification of the EIR, the turnouts from Third Street have been built. The turnouts extend over two-thirds of the block on 18th and 19th streets towards Illinois Street. The turnouts were built in 2003 and the testing was completed in 2006. The design for the remainder of the Loop was not completed due to lack of funding.



The remainder of the Loop to be constructed would consist of installation of two one-third-blocks and one full block of tracks on the street right-of-way for a maximum length of 900 feet. The tracks on Illinois Street between 18th and 19th streets would provide an area for 2-two car trains to layover.

The Loop's environmental impacts were analyzed and cleared under the Third Street Light Rail Project Phase 1 EIR. There have been no changes to the Loop design since the EIR certification. A large segment of the Loop has been built and the remainder of the tracks to be built is a short distance of 900 feet.

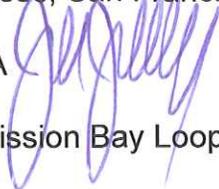
There have been two new housing developments on 18th Street since the EIR certification. The housing development to the south of 18th Street between Third and Illinois streets, was completed in 2002 prior to the completion of the turnouts. The housing development to the north of 18th Street between Third Street and Illinois streets was completed in 2008. No other new developments in the Loop area have occurred since the EIR certification. There have been several new housing developments along Third Street and the near vicinity since the completion of the Third Street Light Rail Project. The new residential and commercial developments were assumed to occur in the area as part of the background growth in the EIR analysis. The current transit oriented residential zoning permits and encourages housing development in this area. The T Third transit service is expected to serve the growing number of people living in these types of developments.

SFMTA seeks your concurrence that the project does not meet any of the requirements listed under Section 15162 (a)-(d) for the preparation of a Subsequent EIR, Section 15163 (a)-(e) for the preparation of a Supplement to an EIR, and Section 15164 (a)-(e), for an Addendum to an EIR, under the State CEQA Guidelines and that no further environmental review for the Loop would be necessary.

The Project was evaluated in the Third Street Light Rail Project Final Environment Impact Report (FEIR), certified by the San Francisco Planning Commission on December 3rd, 1998. No further assessment is required

Laura C. Lynch 10/12/12
San Francisco Planning Dept.
Environmental Planning



DATE: April 22, 2013
TO: Dogpatch Area Residents and Businesses, San Francisco, CA
FROM: John Haley, Director of Transit, SFMTA 
SUBJECT: Neighborhood Petition regarding the Mission Bay Loop

Thank you for taking the time to contact us and provide feedback on possible alternatives. The SFMTA Transit Division understands your concerns with the Mission Bay Loop project and agrees that the Dogpatch, Mission Bay, Pier 70 and areas all along the South East Waterfront are experiencing growth. This is one of the main reasons why additional transit service is needed.

Mission Bay Loop at Proposed Location

The 18th Street/Illinois/19th Street loop was selected in order to best serve the emerging communities and job centers in the Mission Bay and Dogpatch neighborhoods. The Environmental Assessment has been updated to include a list of alternative locations considered and rejected, please refer to that document for greater detail. The loop location is integral to the Central Subway service plan as it minimizes the distance T-line trains need to travel between downtown and the communities where transit demand is expected grow significantly in the next 10 years. The loop will allow SFMTA to provide frequent, fast, and convenient connections to you and your neighbors by operating the most efficient short line service that serves the largest section of passenger demand. For residents south of the loop location, the Central Subway augmented service will also increase transit frequency for the long-line by 20% through the Dogpatch area down to Sunnysdale.

Why not use the Metro East Facility?

Using the Muni Metro East (MME) yard presents operational challenges and will result in slower and more expensive daily service. The Muni Metro East yard was developed and built as a maintenance and storage facility and is not designed nor built to handle regular in-service train movements every 5-10 minutes. The yard does not include a revenue loop for speedy operations.

As a result, a train turnaround in and out of the yard is estimated to take approximately 10 minutes due to track configuration and switch technology and placement. When including the additional travel time between 19th Street and the yard of 4-5 minutes in each direction, the total travel time increase is approximately 20 minutes. With a planned frequency of approximately 7.5 minutes in 2018 when the Central Subway opens,

Edwin M. Lee
Mayor

Tom Nolan
Chairman

Cheryl Brinkman
Vice-Chairman

Leona Bridges
Director

Malcolm Heinicke
Director

Jerry Lee
Director

Joél Ramos
Director

Cristina Rubke
Director

Edward D. Reiskin
Director of
Transportation

One South Van Ness Ave.
Seventh Floor
San Francisco, CA 94103

Tele: 415.701.4500

www.sfmta.com





extending the service to MME would require three additional trains in order to maintain the planned 7.5 minute service.

At a cost of an estimated \$5 million each, three two-car trains would require an investment of \$30 million in rail vehicles. The daily cost of operating and maintaining three additional trains would increase by an estimated \$3.7 million annually.

In addition, operating revenue trains in and out of MME every 5-10 minutes would limit our ability to store trains and utilize maintenance flexibility since track would need to remain consistently clear for revenue movements. To summarize, the additional capital costs upwards of \$30 million dollars and operational costs of nearly \$4 million annually, the current design/use of MME, and the cost/benefits of the Mission Bay Loop in the present location clearly indicate a superior operational and cost-effective location for train turn arounds.

Impacts of the Current Proposal

The Environmental Assessment deals with most of the petition's "Impact of Current Proposal" in detail. However, the SFMTA is aware of these concerns and will work the Port of San Francisco and the residents to ensure that circulation, access to Pier 70, congestion, noise/vibration and coordination with the Giants schedule are handled appropriately.

With regard to emergency response, the City and County of San Francisco along with the SFMTA, places the utmost priority on providing public safety citywide. We have not found that operating a surface light rail system on city streets has decreased response times and once the loop is operational, the Fire and Police Departments will update their response route options in this area ensure public safety and minimal response times.

Lastly, as noted in your petition, the traffic volumes from the 1997 counts serve as a baseline and were augmented with counts from the SF Planning Department in 2012 study (see page 27), the city's traffic model data, and field observations during January and February of 2013 to ensure that the latest information was used.



U.S. Department
of Transportation
**Federal Transit
Administration**

REGION IX
Arizona, California,
Hawaii, Nevada, Guam
American Samoa,
Northern Mariana Islands

201 Mission Street
Suite 1650
San Francisco, CA 94105-1839
415-744-3133
415-744-2726 (fax)

Ms. Carol Rowland-Nawi
State Historic Preservation Officer
Office of Historic Preservation
California Department of Parks and Recreation
1725 23rd Street, Suite 100
Sacramento, CA 95816
Attention: Dr. Susan Stratton and Kathleen Forrest, Project Review Unit

JUN 18 2013

Re: Request for Concurrence on APE, Eligibility of
Historic Resources and Finding of No Adverse
Effect for Mission Bay Transit Loop Project

Dear Ms. Roland-Nawi:

The Federal Transit Administration (FTA) has reviewed your letter, dated May 20, 2013, requesting clarifications to FTA's March 27, 2013 letter. This letter provides updates and clarifications and makes a renewed request for concurrence from the California State Historic Preservation Office (SHPO) for the determination of the area of potential effects (APE), eligibility of historic resources for the National Register of Historic Places (NRHP), and determination of no adverse effects to historic resources for the proposed Mission Bay Transit Loop Project in the City of San Francisco, pursuant to Section 106 of the National Historic Preservation Act (NHPA) (36 CFR 800).

Pursuant to 36 CFR Part 800.3(g), FTA is requesting an expedited review of the request for concurrence as the project is in jeopardy of losing funding through a discretionary grant under the TIGER Cycle IV program. The funds may lapse on June 30, 2013 if not awarded.

Project Description

The proposed project consists of the construction and operation of a transit loop to provide turn-around capabilities for the T-Third Street light rail line via a connection of trackway from Third Street to Eighteenth, Illinois, and Nineteenth Streets in the City of San Francisco. Roughly 900 feet of single-trackway with track drains connected to the existing combined sewer and storm system would be installed in the centerline of the right-of way. Traffic, pedestrian, and train signals at the intersections and sidewalk improvements along the loop.

Seventeen trolley poles would be installed; streetlights would be affixed to eight of these poles. There would be 2 poles on each side of Eighteenth Street, 2 poles on each side of Nineteenth

Street, 7 poles on the west side of Illinois Street, and 6 poles on the east side of Illinois Street. All proposed poles would be installed 18 inches from the curb edge. Six bulb-outs would be installed to accommodate the poles on the east side of Illinois Street. The bulb-outs would extend into Illinois Street approximately 18 inches in order to provide the necessary positioning required for power connection. Poles would measure between 10 and 12 inches in diameter and have 3-foot diameter caisson foundations at a maximum depth of 10 feet. The streetlights would be standard “cobra-head” streetlight fixtures.

Area of Potential Effects

Under 36 CFR Part 800.16(d), the APE is defined as the geographic area in which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. The proposed APE for archaeological resources is limited to areas that could be affected by the maximum extent of project-related ground disturbance. The types of ground disturbance activities include the following: construction of new tracks, new stations, and trolley poles/streetlights; grading, and other construction activities. The APE for the proposed project is 900 feet in length and includes the width of the street and sidewalk, the street-light bulb-outs along one-third of the block of Eighteenth and Nineteenth Streets near their intersection with Illinois Street, and the width of the street along one full block of Illinois Street between Eighteenth and Nineteenth Streets (as shown in Attachment 1 of this letter).

In the May 20, 2013 letter, SHPO recommended that the vertical APE to be expanded to include the depth of ground disturbance from the installation of the streetlights. Your office also requested clarification regarding the location of the proposed streetlights in relationship to the APE. The vertical APE extends to a maximum depth of 10 feet below the surface. The vertical APE encompasses the anticipated depth of ground disturbance from the project work, including the installation of the proposed trolley poles/streetlights. Attachment 1 presents an aerial photograph with location of the proposed trolley poles or combination trolley pole/streetlights.

Survey Results

Your office requested additional information regarding the eligibility of the resources located in and adjacent to the APE. There are no historic properties located in the APE. FTA reviewed resources and historic districts that are adjacent to the APE to analyze potential indirect effects. The research indicated that two historic districts, Pier 70 and Dogpatch Historic Districts, are located adjacent to the APE. The project is located within the boundaries of the Potrero Point Historic District. Although there have been studies regarding the districts, these districts are not currently listed on the NRHP and have not undergone formal determinations of eligibility for the NRHP by any previous Section 106 consultation. The following discussion summarizes the determinations of eligibility for each district. The eligibility determinations for each historic district are also shown in Table 1.

In 2000 and updated in 2008, the San Francisco Planning Department conducted its Citywide Cultural Resource Survey program by surveying more than 140 resources built before 1956 in the Central Waterfront area. From these studies, resources were evaluated as to its potential eligibility for inclusion in the NRHP. According to the Department of Parks and Recreation (DPR) form prepared as part of the 2008 survey, Pier 70 is a district eligible for listing on the NRHP under Criterion A and C, Dogpatch was designated as a local district by the City of San

San Francisco Board of Supervisors, and the Potrero Point Historic District is considered eligible as a local district (SF Planning Dept., 2008). The DPR form for the Potrero Point Historic District was included as Appendix B in the Cultural Resources Technical Memorandum, submitted to the SHPO on March 27, 2013.

The APE is adjacent to the Pier 70, formerly known as Union Iron Works. In 2011, the Port of San Francisco drafted a National Park Service nomination form to list Pier 70 as a historic district on the NRHP. According to Kathleen Diohep of the Port of San Francisco, the nomination was submitted to the SHPO for review the week of June 7th, 2013. Pier 70 is eligible for the NRHP under Criterion A for its association with the development of the maritime industry. The district is also eligible for the NRHP under Criterion C as an example of industrial architecture from the late nineteenth century to World War II. The draft nomination form may be found in Appendix C of the Cultural Resources Technical Memorandum.

The Dogpatch Historic District is two blocks from the APE. It was designated as a local historic district by the City of San Francisco in 2003. The district, concentrated mostly along Tennessee and Minnesota Streets between Tubbs and 18th Streets, is comprised of almost one hundred flats and cottages, as well as several commercial, industrial, and civic buildings, most of which were erected between 1870 and 1930. Dogpatch was not recommended as eligible for the NRHP in the Central Waterfront Cultural Resources Study of 2001 and in the DPR form prepared for the City of San Francisco in 2008. Numerous resources have been altered to the degree that they no longer retain sufficient integrity of design, materials, workmanship, setting, location, feeling, and association to be eligible for the NRHP as contributing resources to a historic district. FTA agrees with the recommendation in the Central Waterfront Study and in the DPR that the district is only eligible at a local level and requests that SHPO concur with its determination that Dogpatch is not eligible for the NRHP.

The APE is within the Potrero Point Historic District; Potrero Point consists of a number of manufacturing, repair, and processing plants constructed during the first half of the twentieth century along Third and Illinois Streets between Eighteenth and Twenty-Fourth Streets. In the DPR form prepared for the City of San Francisco in 2008, Potrero Point was assigned a status code of 5S3 recommending that the district is eligible for the California Register of Historical Resources (CRHR) under Criterion 1 for its association with the industrial development of the City of San Francisco from 1872 to 1958. The district was also recommended as eligible for listing in the CRHR under Criterion 3 as many of the buildings in the district are good examples of late-19th and early 20th century industrial design. Although not formally stated in the DPR form, in accordance with the Instructions for Recording Historical Resources from the CA SHPO, a resource assigned a status code of 5S3 is not recommended as eligible for the NRHP. Building, Structure, and Object Records prepared for the Central Waterfront Cultural Resources Survey in 2001 for the contributing resources to the Potrero Point Historic District indicate that as a result of the loss of integrity from alterations to many of the buildings in the district, it is not eligible for the NRHP. FTA agrees with the recommendation in the DPR that the Potrero Point Historic District is eligible for the CRHR as a local district but not the NRHP and requests that SHPO concur with its determination that Potrero Point is not eligible for the NRHP.

Table 1. Eligibility for the NRHP of Historic Districts Adjacent to the APE

District	Study Name/Date	Study Recommendation	NRHP Eligibility Determination
Pier 70	Port of San Francisco National Register Nomination 2011 DPR District Record Potrero Point Historic District 2008	Eligible for the NRHP under Criteria A and C	Eligible for the NRHP under Criteria A & C
Dogpatch	San Francisco Central Waterfront Cultural Resources Survey 2001 DPR District Record Potrero Point Historic District 2008	Not eligible for the NRHP/Locally designated	Not eligible for the NRHP
Potrero Point	San Francisco Central Waterfront Cultural Resources Survey 2001 DPR District Record Potrero Point Historic District 2008	Not eligible for the NRHP/ Eligible for the CRHR under Criteria 1 & 3	Not eligible for the NRHP

Evaluation of Effects

There are no historic properties within the APE. Of the three historic districts, only the Pier 70 Historic District was determined to be eligible for the NRHP. Construction of the proposed project would not affect the adjacent Pier 70 Historic District. Noise, dust, and other effects from construction would be temporary and would not result in an adverse effect to historic properties. The contributing resources to Pier 70 Historic District are located outside of the APE; therefore, there would be no effect to these resources from construction or operation of the project. The addition of catenary wires and other features of the project would not alter the integrity of the district by changing the location, setting, feeling, workmanship, materials, and association or other characteristics of the property that make it eligible for inclusion in the NRHP. The new features would be compatible with the existing setting of tracks and overhead wires, and would not be an adverse effect.

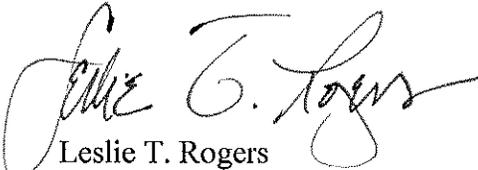
Request for Concurrence

In accordance with 36 CFR § 800.4, the FTA is requesting your concurrence with the APE. FTA is also requesting concurrence on the determinations that the Pier 70 Historic District is eligible for the NRHP and that the Dogpatch and Potrero Point Historic Districts are not eligible for the NRHP. In accordance with 36 CFR § 800.5, FTA also requests your concurrence with a finding of no adverse effect on historic properties for this undertaking.

Pursuant to 36 CFR Part 800.3(c)(4), if we have not heard from your office within 30 days, we will contact your office to address any comments you may have.

If you have any questions, feel free to contact Mr. Alex Smith, Community Planner at (415) 744-2599.

Sincerely,



Leslie T. Rogers
Regional Administrator

Attachment: Figure 1 Aerial photograph showing the APE and proposed locations of the trolley poles

Attachment 1: Aerial photograph showing the Project APE and locations of the proposed trolley poles

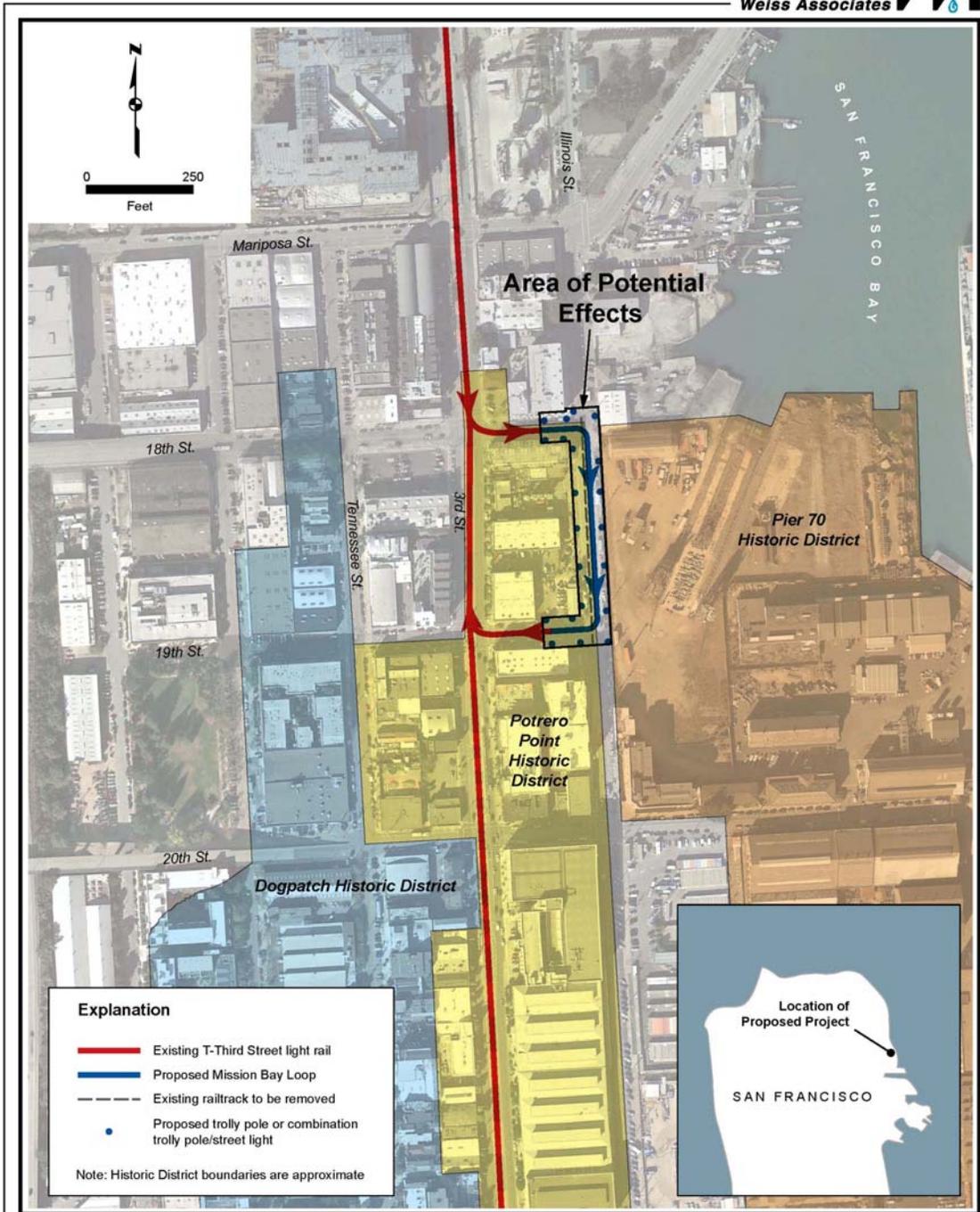


Figure 1. Aerial photograph showing the Project APE and locations of the proposed trolley poles

**OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION**

P.O. BOX 942896
SACRAMENTO, CA 94296-0001
(916) 653-6624 Fax: (916) 653-9824
calshpo@ohp.parks.ca.gov
www.ohp.parks.ca.gov



June 27, 2013

Reply To: FTA_2013_0329_001

Leslie Rogers
Regional Administrator
Federal Transit Administration
201 Mission Street, Suite 1650
San Francisco, CA 94105-1839

Re: Request for Concurrence on APE, Eligibility of Historic Resources and Finding of No Adverse Effect, Mission Bay Transit Loop Project, City and County of San Francisco, CA

Dear Mr. Rogers:

Thank you for your letter of June 18, 2013 continuing consultation and providing additional information for the above referenced undertaking in order to comply with Section 106 of the National Historic Preservation Act of 1966 and its implementing regulation at 36 CFR Part 800. The Federal Transit Administration (FTA) is requesting that I review the proposed project and concur with the Area of Potential Effect (APE), that a historic district is eligible for listing in the National Register of Historic Places (NRHP), and with your determination of No Adverse Effect for the undertaking.

As I presently understand it, the undertaking consists of the construction and operation of a transit loop to provide turn-around capabilities for the T-Third Street light rail line via connection of the Mission Bay Transit Loop comprised of trackway on Third, Eighteenth, Nineteenth and Illinois Streets. The San Francisco Municipal Transit Agency (SFMTA) plans to begin construction of the Mission Bay Transit Loop as early as 2014. The Mission Bay Transit Loop will allow the SFMTA to increase transit service between Mission Bay, South of Market street neighborhoods, and Chinatown.

The existing track at Third Street/Eighteenth Street would be extended along Eighteenth Street to Illinois Street and then south on Illinois Street to Nineteenth Street to complete the loop. Approximately 900 feet of single-trackway with track drains connected to the existing combined sewer and storm system would be installed in the centerline of the existing right-of-way. Traffic, pedestrian and train signals at the intersections and sidewalk improvements along the loop would be installed. In order to install the new trackway along Illinois Street, a 534-foot section of abandoned freight tracks owned by Union Pacific Railroad will be removed. The direct fixation trackway would require excavation approximately 18 inches below grade, and catenary poles would be installed at a maximum depth of 10 feet.

An Environmental Impact Statement/Environmental Impact Report (EIS/EIR) was prepared for the Third Street Light Rail Project, of which the Mission Bay Transit Loop is a component, was completed and approved in 1999. A Programmatic Agreement among the Advisory Council on Historic Preservation, FTA, SFMTA, and this office was signed regarding effects from the Third Street Light Rail Project. While the Third Street Light Rail project was completed in 2003, the Mission Bay Transit Loop was not constructed due to budget constraints.

FTA has determined that the APE is 900 feet in length and includes the width of the street and sidewalk and street-light bulb-outs along one-third of the block of Eighteenth and Nineteenth Streets near the intersections with Illinois Street, and the width of the street along one full block of Illinois Street between Eighteenth and Nineteenth Streets, as shown in Figure 1 of the technical memo attached to your letter. The vertical APE extends to a maximum of ten feet below the surface for ground disturbance from the project work, including the installation of the proposed trolley poles/streetlights. I do not object to this APE.

Background research was performed to identify historic properties, which indicates that the APE is within the Central Waterfront Planning Area. The Potrero Point Historic District was identified in a previous survey prepared for the City of San Francisco identifying historic resources for the purposes of the California Environmental Quality Act (CEQA) and is not formally listed at the local or state level. The Pier 70 Historic District is adjacent to the APE on the west, and that nomination was submitted to my office for consideration for listing on the National Register on June 7, 2013. The locally designated Dogpatch Historic District is located two blocks to the east of the APE.

FTA has requested concurrence on the eligibility of the Pier 70 Historic District. Since this nomination is currently under review by my office for formal designation on the NRHP, I will assume it eligible for the purposes of this project only at this time and defer a formal determination of eligibility once the review of the pending National Register nomination is complete. Recognizing the need for expediency due to the potential loss of funding for the project, I will also assume the Potrero Point Historic District eligible for the purposes of this project only.

The Dogpatch Historic District is a locally designated historic district, the closest boundary of which is located two blocks east of the current project's APE. FTA requested a determination of eligibility but did not include it in the APE for the undertaking or identify any direct or indirect effects to this district. As such, it is beyond the scope of 36 CFR Part 800.4(a) and (b) and I am unable to comment on its eligibility at this time.

Previous studies did not identify any buried deposits of cultural resources within the APE, but historic archaeological materials related to the area's shipbuilding and ironworking history may be present. Results of a geotechnical investigation conducted in the APE indicated that the immediate vicinity of the proposed project location consists of Quaternary artificial fill and sand deposits, which may contain historic artifacts, but the likelihood of encountering pre-contact archaeological materials is low due to the artificial fill deposits and roadway modifications. I recommend that an archaeological monitor is retained to monitor all excavation activity for the project.

FTA has determined that there are no historic properties within the APE. However since the Potrero Point Historic District is assumed eligible for the purposes of the project, the undertaking would occur within the boundaries of that district. This is an industrial area, and the addition of catenary wires and other features would not alter the integrity of either the Potrero Point Historic District or the Pier 70 Historic District, which is immediately adjacent to the APE. The FTA has determined that the undertaking would have no adverse effect on historic properties. I concur with this determination.

In the event buried cultural resources are encountered during construction activities, FTA is obligated to halt construction and isolate and secure the area of the discovery until an archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards can assess the nature and significance of the find, pursuant to 36 CFR Part 800.13(b). Also, per

36 CFR Part 800.13(b)(3), upon discovery of deposits which may constitute a site, the agency official shall notify the SHPO and any Indian tribe that might attach religious and cultural significance to the property. The notification shall describe the agency official's assessment of NRHP eligibility of the property and proposed actions to resolve the adverse effects (if any). The SHPO, Indian tribe, and Advisory Council on Historic Preservation (Council) shall respond within 48 hours of notification. The agency official shall take into account their recommendations regarding NRHP eligibility and proposed actions, and then carry out appropriate actions. The agency official shall provide the SHPO, Indian tribe, and the Council a report of the actions when they are completed.

Thank you for considering historic properties in your planning process, and I look forward to continuing this consultation with you. If you have any questions, please contact Kathleen Forrest of my staff at (916) 445-7022 or e-mail at kathleen.forrest@parks.ca.gov.

Sincerely,

A handwritten signature in black ink that reads "Carol Roland-Nawi, Ph.D." The signature is written in a cursive, flowing style.

Carol Roland-Nawi, PhD
State Historic Preservation Officer



U.S. Department
of Transportation
**Federal Transit
Administration**

REGION IX
Arizona, California,
Hawaii, Nevada, Guam

201 Mission Street
Suite 1650
San Francisco, CA 94105
415-744-3133
415-744-2726 (fax)

JUL 30 2013

Edward D. Reiskin
Director of Transportation
San Francisco Municipal Transportation Agency
One South Van Ness Avenue, Seventh Floor
San Francisco, CA 94103

Re: Environmental Assessment and Finding of No
Significant Impact for the Mission Bay Transit Loop
Project

Dear Mr. ^{ED}Reiskin:

Based on our review of the Environmental Assessment, dated May 2013, for the proposed Mission Bay Transit Loop Project, the Federal Transit Administration (FTA) has issued a Finding of No Significant Impact (FONSI). A copy of the FONSI is enclosed.

The FONSI and supporting documentation should be made available to affected government agencies and the public and should be posted on the project website. A Notice of Availability for the FONSI should be published in local newspapers and should also be provided directly to affected government agencies, including the State intergovernmental review contacts established under Executive Order 12372.

Please note that the terms and conditions of the grant contract will require the San Francisco Transportation Agency to undertake the mitigation measures identified in the Environmental Assessment and FONSI.

If you have questions about our review, please call Alexander Smith, Community Planner, at (415) 744-2599.

Sincerely,


Leslie T. Rogers
Regional Administrator

Enclosure

Finding of No Significant Impact

Grant Applicant: San Francisco Municipal Transportation Agency (SFMTA)

Project Sponsor: San Francisco Municipal Transportation Agency

Proposed Project: Mission Bay Transit Loop Project

The Environmental Assessment (EA) for this project was prepared in cooperation with the Federal Transit Administration (FTA) pursuant to the National Environmental Policy Act of 1969 (NEPA) (42 United States Code [USC] §4332); Federal Transit Law (49 USC Chapter 53); 49 USC §303 (formerly Department of Transportation Act of 1966, Section 4[f]); National Historic Preservation Act of 1966, Section 106 (16 USC §470f); and Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations).

Description: The Mission Bay Transit Loop Project would provide turn-around capabilities for the T-Third Street light rail line via a connection of trackway from Third Street to 18th, Illinois, and 19th Streets to facilitate an increase in frequency of transit service in the Chinatown, Mission Bay, and South of Market neighborhoods. The increase in service would be achieved by allowing up to half of the trains traveling on Third Street via the Central Subway to turn around during peak hours at the Mission Bay Transit Loop and proceed back toward downtown San Francisco to Stockton and Washington Streets. Key elements of the project include:

- *Trackway:* New trackway would be installed on one full block of Illinois Street (between 18th and 19th Streets). A maximum of 900 feet of single-track trackway would be installed in the street right-of-way on 18th, 19th, and Illinois Streets to connect to existing track on these streets. In order to install new trackway along Illinois Street, a 534-foot portion of the abandoned freight rail tracks would be removed. The streets will be resurfaced after the tracks are installed.
- *Overhead Contact (Power) System:* To provide electric power to the trains, 17 trolley poles would be installed. Streetlights would be affixed to eight of these poles.
- *Signalization:* Traffic, pedestrian, and train signals would be installed at the intersections of 18th and Illinois Streets and 19th and Illinois Streets.
- *Curb Ramps/Sidewalk:* A curb ramp compliant with the requirements of the Americans with Disabilities Act (ADA) would be installed at the northwest corner of intersection of 19th and Illinois Streets. Approximately 228 feet of concrete sidewalk would be installed: 128 feet on the west side of Illinois Street and 100 feet on the north side of 19th Street.
- *Utility Relocation:* Sewer manholes serviced by the San Francisco Public Utilities Commission currently located at the intersections of 18th and Illinois Streets and 19th and Illinois Streets would be relocated to outside of the proposed trackway right-of-way.

Additional trains will be added along the Third Street corridor to augment levels of transit service on the T-Third Street light rail line after the opening of the Central Subway anticipated in 2019. Turning of trains back toward downtown at the Loop would allow for a decrease from nine minute to four minute weekday peak headways indicated in the Central Subway Service Plan.

To avoid reduction in roadway capacity while trains are making their way onto Illinois Street from 18th Street or onto Third Street from 19th Street, the SFMTA evaluated the three design options listed below, and on July 23, 2013, selected Design Option 2:

- *Design Option 1:* Vehicular access would be controlled by signalization at the four intersections surrounding the Loop: Third and 18th Streets; Illinois and 18th Streets; Illinois and 19th Streets; and Third and 19th Streets. Flashing light signals would be installed by the exit from each driveway and on the street to warn vehicles to wait until the train clears before entering the street.
- *Design Option 2:* Vehicles and trains would be allowed to travel in the same direction in mixed traffic. To provide sufficient width for vehicle and train traffic, parking would be limited to the south side of 18th Street and the north side of 19th Street. “No Parking” and “No Stopping, 7 a.m. to 6 p.m.” signs would be installed along the north side of 18th and the south side of 19th Streets.
- *Design Option 3:* 18th and 19th Streets would be converted into one-way couplets. Vehicles access would be controlled until trains have left 18th or 19th Streets, with vehicles traveling on 18th Street in the eastbound direction only, and vehicle travel on 19th Street in the westbound direction only. Installation of flashing light signals by the exit from each driveway and on the street would warn vehicles to wait before entering the street until the train clears.

Alternatives: One alternative to the proposed project, a No Action Alternative, was examined. This alternative assumed that the proposed action project would not be constructed and existing service level along the T-Third Street light rail line would remain unchanged. The No Action Alternative would not increase the frequency of transit service in the Chinatown, Mission Bay, and South of Market neighborhoods.

Environmental Effects: SFMTA prepared an Environmental Assessment (EA) in May 2013 to evaluate the environmental effects of the project pursuant to the requirements of NEPA, as codified in 23 Code of Federal Regulations (CFR) 771.119. The FTA was the lead agency under NEPA. The EA concluded that implementation and operation of the project would not result in significant adverse effects that would not be mitigated.

The EA found that the project’s implementation would cause no significant adverse environmental effects that would not be mitigated. This would apply to all applicable environmental elements including Air Quality, Land Use and Zoning, Environmental Justice, Social Impacts, Transportation, Noise, Hazardous Materials, Water Resources, Biological Resources, Visual Quality, Cultural Resources, Recreation and Section 4(f) Resources, Safety and Security, and Public Services and Utilities.

The project occurs within the boundaries of the Potrero Point Historic District and is adjacent to the Pier 70 Historic District. At this time, based on consultation with the State Historic Preservation Officer (SHPO), the Potrero Point Historic District and the Pier 70 Historic District, which has a pending National Register nomination, were assumed eligible for the National Register for the purposes of the project only. The FTA determined that the project would have no adverse effect on historic properties, and the SHPO concurred with this determination on June 27, 2013. The implementation of the project would not adversely affect any historic resource or result in a

use of any Section 4(f) resource, thereby satisfying the requirements of 36 CFR 800 and 49 USC §303.

Public meetings were held on February 11, 2013 and June 4, 2013. The EA was released for public review on May 10, 2013. The Notice of Availability (NOA) was published in the San Francisco Chronicle on May 11 and May 12, 2013, and sent to governmental agencies and interested parties. Copies of the EA were circulated for public review between May 10, 2013 and June 10, 2013. The document was made available at the San Francisco Public Library (100 Larkin Street; San Francisco, CA 94102) and at the San Francisco Municipal Transportation Agency (1 South Van Ness Ave, 7th Floor; San Francisco, CA 94103). The EA was posted on SFMTA's website (<http://www.sfmta.com/projects-planning/projects/mission-bay>). Copies of the document were sent by U.S. mail to the State Clearinghouse for distribution to state and local agencies.

Two written comments were received at the public hearing attended by approximately thirteen individuals. Eleven comment letters were received via mail and email. A petition from the Dogpatch residents and businesses was received. Comments and responses are attached hereto in Attachment A.

Environmental Findings: In accordance with 23 CFR Part 771, the FTA finds, on the basis of the analysis, reviews, and mitigation measures identified in the EA, that there are no significant impacts on the environment associated with the implementation of the project. The SFMTA has incorporated mitigation measures into the project to reduce or eliminate potentially adverse environmental impacts on traffic, air quality, noise and construction.


Leslie T. Rogers
Regional Administrator
FTA Region IX

JUL 30 2013

Date

Attachments:

Attachment A: Comments on the EA and Responses

Attachment B: Relevant Correspondence



SAN FRANCISCO PLANNING DEPARTMENT

ENVIRONMENTAL EVALUATION APPLICATION COVER MEMO - PUBLIC PROJECTS ONLY

In accordance with Chapter 31 of the San Francisco Administrative Code, an appeal of an exemption determination can only be filed within 30 days of the project receiving the first approval action.

Please attach this memo along with all necessary materials to the Environmental Evaluation Application.

Project Address and/or Title:	Mission Bay Loop
Funding Source (MTA only):	
Project Approval Action:	n/a
Will the approval action be taken at a noticed public hearing? <input type="checkbox"/> YES* <input checked="" type="checkbox"/> NO	
* If YES is checked, please see below.	

IF APPROVAL ACTION IS TAKEN AT A NOTICED PUBLIC HEARING, INCLUDE THE FOLLOWING CALENDAR LANGUAGE:

End of Calendar: CEQA Appeal Rights under Chapter 31 of the San Francisco Administrative Code If the Commission approves an action identified by an exemption or negative declaration as the Approval Action (as defined in S.F. Administrative Code Chapter 31, as amended, Board of Supervisors Ordinance Number 161-13), then the CEQA decision prepared in support of that Approval Action is thereafter subject to appeal within the time frame specified in S.F. Administrative Code Section 31.16. Typically, an appeal must be filed within 30 calendar days of the Approval Action. For information on filing an appeal under Chapter 31, contact the Clerk of the Board of Supervisors at City Hall, 1 Dr. Carlton B. Goodlett Place, Room 244, San Francisco, CA 94102, or call (415) 554-5184. If the Department's Environmental Review Officer has deemed a project to be exempt from further environmental review, an exemption determination has been prepared and can be obtained on-line at <http://sf-planning.org/index.aspx?page=3447>. Under CEQA, in a later court challenge, a litigant may be limited to raising only those issues previously raised at a hearing on the project or in written correspondence delivered to the Board of Supervisors, Planning Commission, Planning Department or other City board, commission or department at, or prior to, such hearing, or as part of the appeal hearing process on the CEQA decision.

Individual calendar items: This proposed action is the Approval Action as defined by S.F. Administrative Code Chapter 31.

THE FOLLOWING MATERIALS ARE INCLUDED:

- 2 sets of plans (11x17)
- Project description
- Photos of proposed work areas/project site
- Necessary background reports (specified in EEA)
- MTA only: Synchro data for lane reductions and traffic calming projects



SFMTA
Municipal
Transportation
Agency

Edward M. Lee, Mayor

Tom Gallo, Chairman

Gwyroeth Borden, Director

Jerry Lee, Director

Christina Rutke, Director

Cheryl Berman, Vice Chairman

Malcolm Hancock, Director

Joel Ramos, Director

Edward D. Reiser, Director of Transportation

MEMORANDUM

TO: Jeanie Poling

FROM: Jerry Robbins

DATE: August 15, 2014

SUBJECT: Environmental Review for the Mission Bay Loop

The Planning Department issued the attached environmental review of the Mission Bay Loop project in October 2012 (case number 2012.1282E). The Mission Bay Loop project was initially reviewed in the Third Street Environmental Impact Report (case number 1996.281E.) Since it has been nearly two years since the attached environmental clearance was issued, the SFMTA requests that this project's environmental clearance be reviewed in light of current plans for the surrounding area.

Background:

The Mission Bay Transit Loop (the Loop) will provide turn-around capabilities for the T-Third light rail line through a connection from Third Street to 18th, Illinois, and 19th streets. The Loop would afford the southbound train the ability to turn left on 18th Street, travel around the block via Illinois Street and 19th Street, and make the right turn to go northbound on Third Street. The Loop would allow trains to turn around for special events (e.g., special events, concerts, street fairs) and during peak periods to meet the projected service needs in the Central Subway Corridor, including the Chinatown, Mission Bay, and SOMA neighborhoods. Allowing half of the trains on the T-Third line to turn around at the Loop will not affect performance for residents of Hunters Point and those living along the 3rd Street corridor because additional train capacity will be added to the turn-around route as part of the Central Subway project.

SFMTA constructed the turnouts from Third Street in 2003 and completed testing in 2006. The turnouts extend over two-thirds of the block on 18th and 19th Streets towards Illinois Street. The new track work for the loop will connect to these turnouts.

Scope of Contract:

Work to be performed for the Project includes, but is not limited to, the following:

- Track work using a paved direct fixation system.
- Overhead Catenary System (OCS), including trolley poles and foundations, guy wires and contact wire.
- Roadway, sidewalk and curb ramp work, including AC grinding and paving.

- Vehicle Tagging System (VTS), including loops, conduit, pull boxes, ground rods, wire and cable, cabinets and bollards.
- Rail bonding.
- Street lighting work, including conduit, pull boxes, ground rods, and wire.
- Traction power work, including conduit and cable.
- Traffic signal work, including poles, mast arms, signals, conduits, pull boxes, wire and cable, controllers and bollards.
- Sewer work, including force and gravity mains, steel casings, culverts, manholes and catch basins.

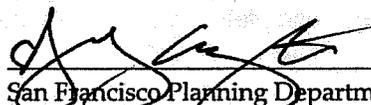
Current Plans:

The major change in land use plans that has occurred in the vicinity of the Loop since 2012 is the proposal to construct an 18,000 seat arena for the Golden State Warriors basketball team at the northeast corner of 3rd and 16th streets. The proposed arena will generate demand for increased transit use along 3rd Street, particularly between downtown and 16th Street. Constructing the Loop would complement the arena by providing an area for light rail vehicles to turn around just south of the arena, allowing for increased transit service within the high-demand area of the corridor between Market and 16th streets as well as storage of light rail transit vehicles just south of the arena prior to the end of arena events for quick response to post-event surges in transit demand. On the other hand, the Mission Bay Loop would result in some storage of transit vehicles in one of the two southbound traffic lanes of Illinois Street between 18th and 19th streets. This could potentially be detrimental to traffic flow on southbound Illinois Street after special events. However, traffic volumes on southbound Illinois Street are generally light except after the end of special events at AT&T Park. It is likely that storage of light rail vehicles on Illinois Street would be minimal during the post-event period as these light rail vehicles would be put into service to carry post-event transit demand surges that would occur simultaneous to post-event traffic surges for either AT&T Park or the proposed arena.

The SFMTA seeks your concurrence that the project does not meet any of the requirements listed under the Section 15162 (a)-(d) for the preparation of a subsequent EIR, Section 15163 (a)-(e) for the preparation of a supplement to an EIR, or Section 15164 (a)-(e) for an addendum to an EIR, under the State CEQA Guidelines and that no further environmental review for the Loop would be necessary.

attachment

The Project was evaluated in the Third Street Light Rail Project Final Environmental Impact Report (FEIR), certified by the San Francisco Planning Commission on December 3rd, 1998. No further assessment is required.

 8/27/14
San Francisco Planning Department
Environmental Planning

Edwin M. Lee | Mayor
Tom Nolan | Chairman
Cheryl Brinkman | Vice-Chairman
Leona Bridges | Director
Malcolm Heinicke | Director
Jerry Lee | Director
Joel Ramos | Director
Cristina Rubke | Director
Edward D. Reiskin | Director of Transportation

MEMORANDUM

TO: Monica Pereira
FROM: Rana Ahmadi
SUBJECT: Environmental Review for the Mission Bay Loop Project
DATE: October 3, 2012

The Mission Bay Loop Project "the Loop" is a short-turn loop from the Muni T Third light rail line (T Third) to the east of Third Street. The Loop is intended to provide more frequent transit service to the Mission Bay area. The Loop would provide turnaround capabilities for the T Third through a connection from Third Street to 18th, Illinois, and 19th streets.

The current T Third runs at 10-minute interval on weekdays between 8:00 AM and 5:00 PM. Between 5:00-8:00 PM the T Third runs every nine minutes. Between 8:00 PM and 12:00 midnight the T Third runs every 15 minutes. On the weekend T Third runs every 12 minutes from 8:00 AM to 2:00 PM and every 20 minutes between 2:00 PM and midnight. The Loop would not affect the frequency of the service for the entire stretch of the T Third from the Caltrain Station at 4th and King streets to the Sunnysdale Station in the south. The Loop would however double the frequency of T Third from this point to the north.

The Loop was designed to respond to the increased ridership demand of the Mission Bay development area. The Loop was reviewed and analyzed in the Environmental Impact Report and Environmental Impact Statement (EIR/EIS) for the Third Street Light Rail Project Phase 1. The EIR was certified in 1999 and the Record of Decision (ROD) for this project was issued in 1999.

Page 2-27 of the EIR/EIS describes the Loop under the built alternative. Figure 2 on page 2-17 of the EIR/EIS shows the Loop as the "Light Rail Short Turn".

Since the certification of the EIR, the turnouts from Third Street have been built. The turnouts extend over two-thirds of the block on 18th and 19th streets towards Illinois Street. The turnouts were built in 2003 and the testing was completed in 2006. The design for the remainder of the Loop was not completed due to lack of funding.



The remainder of the Loop to be constructed would consist of installation of two one-third-blocks and one full block of tracks on the street right-of-way for a maximum length of 900 feet. The tracks on Illinois Street between 18th and 19th streets would provide an area for 2-two car trains to layover.

The Loop's environmental impacts were analyzed and cleared under the Third Street Light Rail Project Phase 1 EIR. There have been no changes to the Loop design since the EIR certification. A large segment of the Loop has been built and the remainder of the tracks to be built is a short distance of 900 feet.

There have been two new housing developments on 18th Street since the EIR certification. The housing development to the south of 18th Street between Third and Illinois streets, was completed in 2002 prior to the completion of the turnouts. The housing development to the north of 18th Street between Third Street and Illinois streets was completed in 2008. No other new developments in the Loop area have occurred since the EIR certification. There have been several new housing developments along Third Street and the near vicinity since the completion of the Third Street Light Rail Project. The new residential and commercial developments were assumed to occur in the area as part of the background growth in the EIR analysis. The current transit oriented residential zoning permits and encourages housing development in this area. The T Third transit service is expected to serve the growing number of people living in these types of developments.

SFMTA seeks your concurrence that the project does not meet any of the requirements listed under Section 15162 (a)-(d) for the preparation of a Subsequent EIR, Section 15163 (a)-(e) for the preparation of a Supplement to an EIR, and Section 15164 (a)-(e), for an Addendum to an EIR, under the State CEQA Guidelines and that no further environmental review for the Loop would be necessary.

The Project was evaluated in the Third Street Light Rail Project Final Environment Impact Report (FEIR), certified by the San Francisco Planning Commission on December 3rd, 1998. No further assessment is required

Laura C. Lynch 10/12/12
San Francisco Planning Dept.
Environmental Planning