
EMERYVILLE BICYCLE AND PEDESTRIAN PLAN 1998 - 2010

Background Report and Guidelines

July 1998

City of Emeryville
Emeryville, CA 94608
(510) 596-4360

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Approved by Emeryville City Council March 17, 1998
Revised July 16, 1998 per MTC Comments

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EMERYVILLE BICYCLE AND PEDESTRIAN PLAN

1998-2010

Background Report and Guidelines

I. Introduction

Emeryville's small area, flat terrain and temperate climate make it a good setting for bicycle and pedestrian transportation. This plan's goals include promoting cycling and walking as viable means of transportation, increasing the number of cyclists and pedestrians in the city, reducing traffic congestion and improving air quality. This plan sets forth a bicycle and pedestrian network to provide access to all parts of the City, transit hubs and neighboring cities. It also seeks to make cycling more convenient and enjoyable through improved bicycle parking, bicycle detectors in traffic signals, and signs.

General Plan Policy. This Bicycle and Pedestrian Plan implements General Plan Circulation Element Goal L: "Establish a citywide network of interconnected pedestrian and bicycle routes to provide access to the major features, attractions and activities of the city, thus providing recreational benefits and reducing dependence on automobiles."

General Plan Policy L-1 calls for *new routes*. The routes in this plan are:

Bikeways:

NS1 Bay Trail Along Frontage and Powell*	EW1 67th Street	EW6 S Bayfront-53rd*
NS2 Bay-Shellmound	EW2 65th Street	EW7 47th-Doyle
NS3 Overland-Landregan-Horton	EW3 59th Street	EW8 45th Street
NS4 9th St. Drill Track*-Doyle-Haven-Emery	EW4 Peninsula	EW9 40th Street
NS5 Adeline Street	EW5 Stanford Ave.	*Pedestrian-Bike Path

Pedestrian Ways:

PW 1 Watergate Boardwalk PW 2 Powell Street Peninsula Park PW 3 Powell Overcrossing

Some of these routes are different from those shown on the General Plan Circulation Diagram. In order to implement this plan, the City Council will need to adopt a new bicycle and pedestrian map as a General Plan Amendment.

General Plan Policy L-2 calls for routes that *minimize auto hazards* and avoid heavily trafficked streets. This plan seeks to provide better alternatives to some arterials such as Hollis and Powell, and improve cycling conditions on others such as Shellmound and 40th.

General Plan Policy L-3 calls for integrating the network into *regional networks*. This plan connects to Berkeley along Frontage Road, on Bay Street (to Aquatic Park and the I-80 overcrossing) and on the 9th Street Drill Track (to the planned 9th Street bicycle boulevard). In the short run, Berkeley will sign Folger and Hollis to our border, and cyclists will proceed a third of a block to 67th Street. Emeryville's plan connects to Oakland's bikeways at Adeline/53rd, 40th (to the MacArthur BART station), Horton (to a path from Yerba Buena to Mandela Parkway), and Shellmound (via a path from Shellmound to the Bay Bridge). Emeryville is working with Berkeley, Albany and Oakland to design a regional bicycle sign program.

The new *San Francisco Bay Trail* will run on several of Emeryville's bikeways and one pedestrian way. The main Bay Trail is planned for pedestrians and cyclists. Some of the spurs are for pedestrians only. The main Bay Trail will run from Berkeley south on the path alongside Frontage Road, east on Powell Street, south on Shellmound Street, east on 40th Street, and south on Horton Street from 40th toward the Mandela Parkway in Oakland. Bicycle-pedestrian spurs will run on Powell Street west to the Marina, and on a path from the south end of Shellmound Street toward the Bay Bridge. A pedestrian-only spur runs to and on the Watergate Boardwalk.

II. Existing Conditions

Background. Emeryville's population is approximately 6,700. The City occupies 1.4 square miles along the San Francisco Bay between Berkeley and Oakland, including a scenic peninsula. Emeryville is bounded by the Bay on the west side, San Pablo Avenue and Adeline Street to the east, 67th Street on the north, and a line through 40th and 36th Streets on the south.

Trip Attractors and Generators. Major trip generators and attractors are shown in Figure 1. Emeryville's major residential areas include the Watergate Condominiums on the peninsula, Pacific Park Plaza and Emery Bay Club and Apartments on Christie Avenue, a portion of the Golden Gate neighborhood at the northeast corner of the city, the Triangle Neighborhood in the southeast, and the Emery Bay Village Condominiums on 53rd Street. The major employment centers are Sybase, Chiron and the Watergate Office Towers. The major retail centers are the Public Market, Powell Street Plaza and East Baybridge. Recreation and entertainment attractions include the marina and park on the peninsula, the United Artist Cinema Complex between Bay and Christie, a billiards club on, batting cages on Christie, an indoor rock climbing facility at Doyle/47th, and indoor volleyball. Principal auto commute routes include San Pablo Avenue, Stanford/Powell Streets, Hollis Street, 65th Street, 40th/Shellmound Streets, Christie Avenue, and the I-80/Powell interchange.

Transit Connections. AC Transit and Amtrak serve Emeryville directly, and BART serves the city indirectly. The Emery-Go-Round provides fixed-route shuttle service from the MacArthur BART station to Emeryville businesses and residential complexes. The Emery-Go-Round, which is funded by the Emeryville Transportation Management Association (TMA), runs from 6:00 AM to 7:30 PM weekdays and from 9:00 AM to 4:00 PM on Saturday. These buses run every 15 minutes during peak hours and every 25 minutes at other times.

AC Transit provides connections to eastern Alameda and Contra Costa Counties. Some buses on each route have bike racks. Amtrak has places for bicycles on all of its commuter trains. BART allows bicycles in the rear of any car except the front car of each train. Bicycles are allowed in any direction on all trains during weekends and non-peak hours, and on Richmond-Fremont trains at all times. Bicycles are allowed on San Francisco trains leaving MacArthur before 7:00 and after 8:45 AM, and leaving Ashby before 6:55 and after 8:45 AM. Cyclists can board trains from San Francisco before 4:15 and after 6:30 PM.

Bicycling. Conditions. Cyclists in Emeryville face discouraging roadway conditions, a lack of convenient routes, and few facilities. Railroad tracks and spurs intersect or run along several streets. Few through east-west routes exist over the Union Pacific tracks and the I-80 freeway. The large volume of truck traffic, along with diagonal and 90-degree parking, makes cycling on industrial streets a challenge. Some intersections are frustrating for cyclists, who must approach the sidewalk

to activate traffic signals. Most use major auto routes such as Powell, Hollis, Shellmound, 40th and 65th Streets because they are through routes.

Bicyclists. In 1990, 4,450 people (2% of the 217,316 employed residents) in the Emeryville-Berkeley-Oakland area commuted to work by bicycle. Many of these people work in Emeryville. Of Emeryville's 3,362 employed residents, 41 (1%) commute to work by bicycle. In Berkeley, where bicycle facilities have been emphasized for a longer period of time than in Emeryville, 5% of workers commute. Statewide, cities which have installed bike lanes have seen an increase in cyclists and a reduction in bicycle accidents. Implementation of this plan should help Emeryville increase the percentage of residents who bicycle to work to 3-4% by 2010.

Recent Accomplishments. Emeryville has begun improving conditions for cyclists. Class II bike lanes are in place on Bay and Landregan Streets, on 59th Street west of Peladeau Street, and on 40th Street from Shellmound to San Pablo Avenue. Caltrans is completing the portions of the Bay Trail along Frontage Road and under the I-80 interchange. The Public Works Department has modified storm drain grates to make them safe for cyclists. Bicycle racks exist at Christie/64th, Powell Street Plaza, Watergate Towers and East Baybridge. The City has placed bicycle lockers at the Amtrack station. Bicycle planning is part of development projects now in the planning stages.

Bicycle Advisory Committee. Emeryville's Bicycle Advisory Committee (BAC) is a subcommittee of the Traffic Committee. The BAC is composed of a Planning Department staff member, a Public Works Department staff member, a bicycle police officer, two City Council members, and several citizens. The committee meets as needed, and has had an active role in developing this plan.

Walking. Conditions. Pedestrians can reach most of the City via sidewalks. The Watergate boardwalk provides pedestrian access to the Bay, and the Powell overcrossing provides an alternative to walking across the Powell Street Bridge.

Pedestrians. In 1990, 132 (4%) of Emeryville's employed residents walked to work. Some of the City's residents also walk to school, lunch, shopping areas and other destinations.

Recent Accomplishments. A pedestrian-bicycle overcrossing with elevators was recently completed over the railroad tracks between Bay and Landregan Streets. Pedestrian access is part of current development projects.

III. Planned Bikeway Network

A network of north-south and east-west bikeways is planned based on criteria of feasibility; safety; convenience; and access to trip generators, trip attractors and regional bikeways. Bikeways are composed of Class I bike paths, Class II bike lanes and Class III signed routes. Figure 2 shows typical dimensions of each type of bikeway. The planned network is shown in Figure 3 and described on the following pages. Although all city streets should be built and maintained with an eye toward cycling ease and safety, this network will receive primary attention and will be signed accordingly. The north-south bikeways are numbered NS1-NS5, and the east-west routes are numbered EW1-EW9. Although the routes are described using "to" and "from," the routes are two-way.

"Immediate" means in the first two years (1998-1999), "short-term" means in the next five years (2000-2004), and "long-term" means in the next six years (2005-2010). Priorities are set so the City

can improve safety, complete major bikeways, coordinate with planned roadway improvements, and complete a basic grid, then fill it in with connecting bikeways.

In implementing the network plan, it is most important to provide the planned connections at the planned level of bicyclist safety and convenience. As redevelopment occurs, the city may work with developers to design the best ways to make the same connections at the same level of safety and convenience as the specific bikeways shown in this plan.

Annual totals of rough cost estimates are shown in Table 1. Rough estimates of capital costs are shown in Table 2. Rough estimates of maintenance costs are shown in Table 2. Sweeping, inspection and repair, and repainting are important in keeping bicycle facilities safe and pleasant.

IV. Pedestrian Ways

In addition to sidewalks, pedestrian facilities include the Watergate Boardwalk and the Powell Street Overcrossing. A third pedestrian path is planned in the future park south of Powell Street on the peninsula.

V. Bicycle Facilities Guidelines

In addition to the bikeways, bicycle detectors on other streets and bicycle parking are important elements in a bicycle system. Caltrans standards now recommend bicycle detectors on all new traffic signals. The City is pursuing installation of first-time bike racks at the Police Department, the Post Office, the Public Market and 2200 Powell Street.

Bicycle Parking Requirements The Zoning Ordinance allows developers to receive credit up to 1/40 of auto parking for an equivalent number of bicycle parking spaces. This plan expands the City's bicycle parking policy, by including requirements based on land uses. Application submittal requirements should include documentation showing how bicycle parking will be provided. Applications should include plans for convenient customer/client parking (typically in the form of bike racks, inverted U's or "waves") and secured employee parking. Outdoor or lobby bicycle parking should be in visible locations, enable cyclists to lock both the frame and wheel to the rack with a U-lock, be easy to use, and have adequate access clearance. Employee parking should be accessible only to employees unless there are racks or bars to which employees can lock bicycles.

VI. Programs and Actions

Maintenance. The Public Works Department will check and maintain road conditions for bicyclists, especially on the bikeway network and major streets. This includes frequent street sweeping, checking lights and signals, inspecting pavement, repairing holes and bumps, making pavement level with gutters and grates, maintaining railroad crossings, and replacing worn stripes and stencils. A line item may be required in the Public Works budget for this work.

Transit Connections. The bikeway and sidewalk networks provide access to Amtrak and BART. The City is also planning to place bicycle racks on the Emery-Go-Round BART shuttle buses.

Education and Safety. The City and the Emeryville Transportation Management Association (TMA) publicize bicycle facilities and participate in Bike-to-Work day. The TMA is preparing a poster including a map of existing bikeways, and will distribute it through member businesses and residential complexes. It will be available from the TMA, whose number is 451-3862. Each year the City publishes an article about Bike-to-Work Day in the citywide newsletter, which goes to each business and household. On Bike-to-Work Day, the City coordinates business-sponsored Energizer Stations. The City and the TMA will also publicize Bicycle Advisory Committee meetings, and will investigate the potential for safety education and associated helmet and bike-light give-aways.

Updating the Bicycle and Pedestrian Plan. As the end of the planning period approaches, about 2007, the City should prepare a new Bicycle and Pedestrian Plan to seize new opportunities and meet new needs that become apparent as the City develops.

VII. Compliance With State Requirements for Bicycle Plans

This plan meets state requirements for contents of bicycle plans, as listed below.

Bicycle Commuters. Existing and potential bicycle commuters are described in Section II.

Land Use. Existing and proposed land uses are shown in Figure 1.

Bikeways. Existing and proposed bikeways are shown citywide in Figure 3. The bikeways are shown and described in detail in Figures N-S 1 through E-W 11.

Bike Parking Facilities. Existing bike parking facilities are shown in Figure 1. Proposed bike parking facilities are shown in Figure 3.

Transit Connections. Bicycle-transit facilities are described in Section VI and shown in Figure 1.

Showers and Lockers. Existing showers and lockers are shown in Figure 1. The City does not plan to provide clothes lockers, rest rooms or showers for cyclists within the time horizon of this plan.

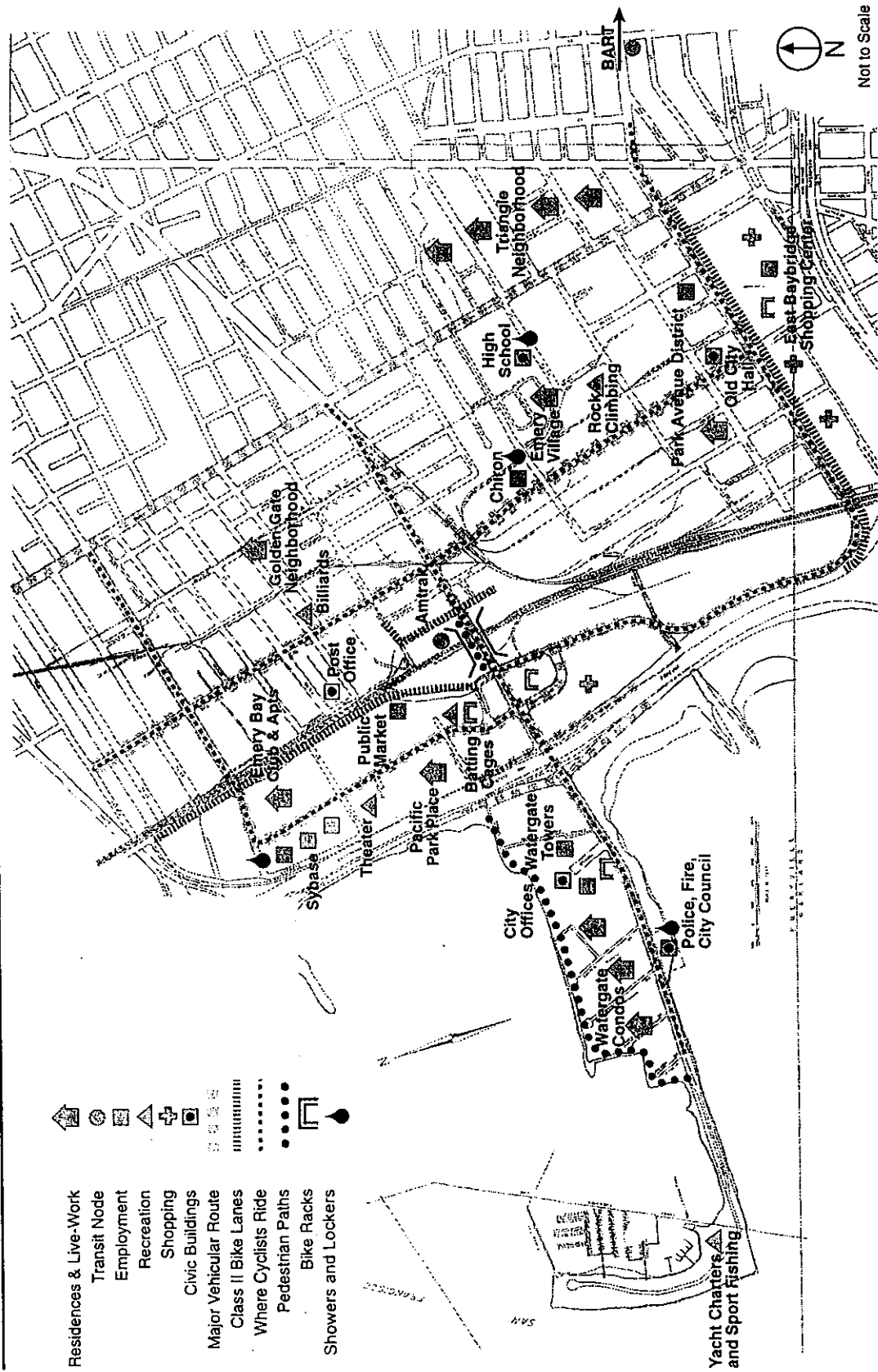
Safety and Education. Education and safety programs are described in Section VI.

Citizen Involvement. The Bicycle Advisory Committee is described in Section II.

Plan Consistency. Consistency with the Emeryville General Plan and the Bay Trail is described in Section I, Introduction. This plan also furthers the goals of the Bay Area Clean Air Plan.

Projects and Priorities. Projects, priorities are shown in Table 2.

Expenditures. Past expenditures are shown in Table 4. A rough estimate of future financial needs is shown in Tables 1-3.



EXISTING CONDITIONS

Figure 1

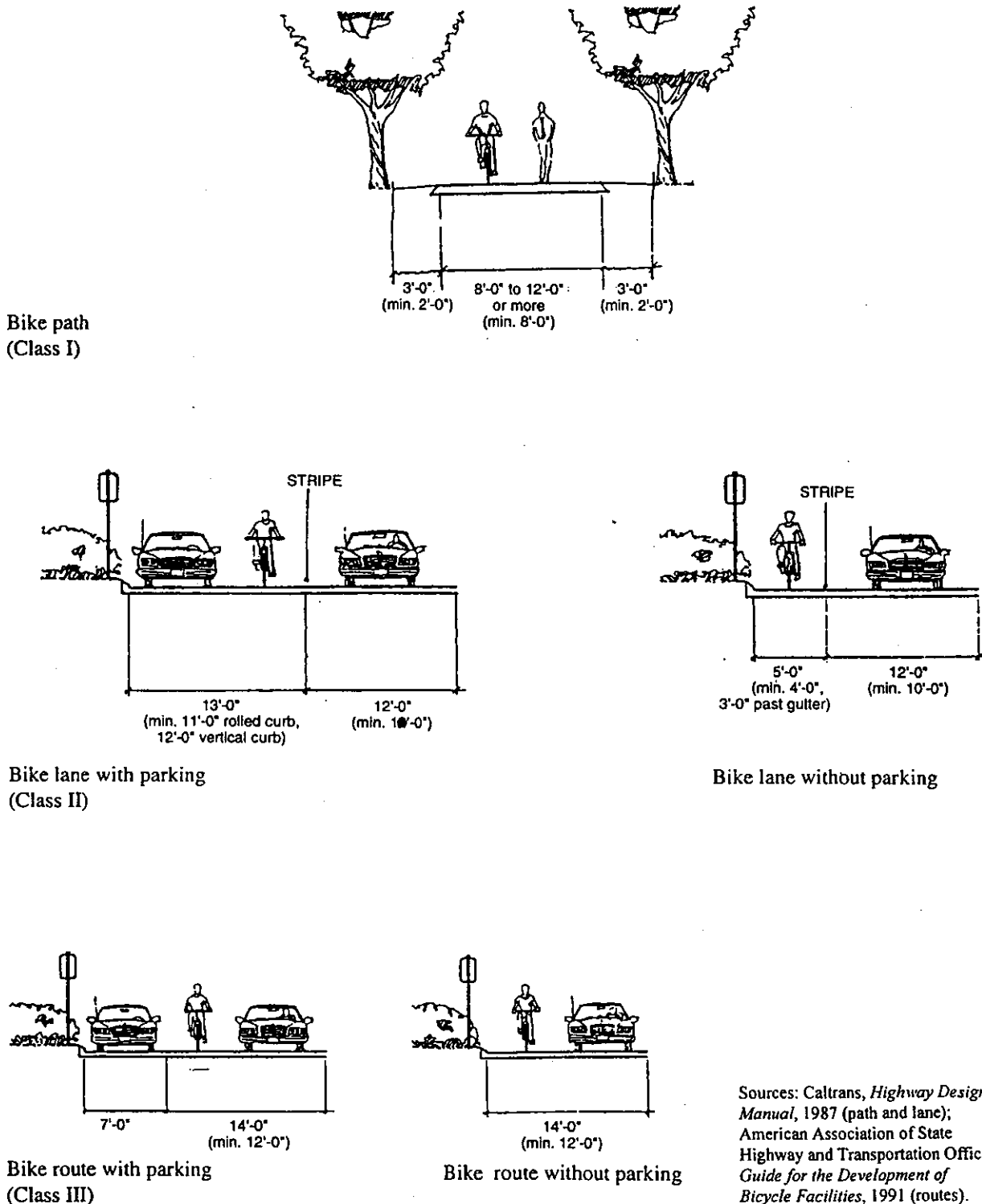
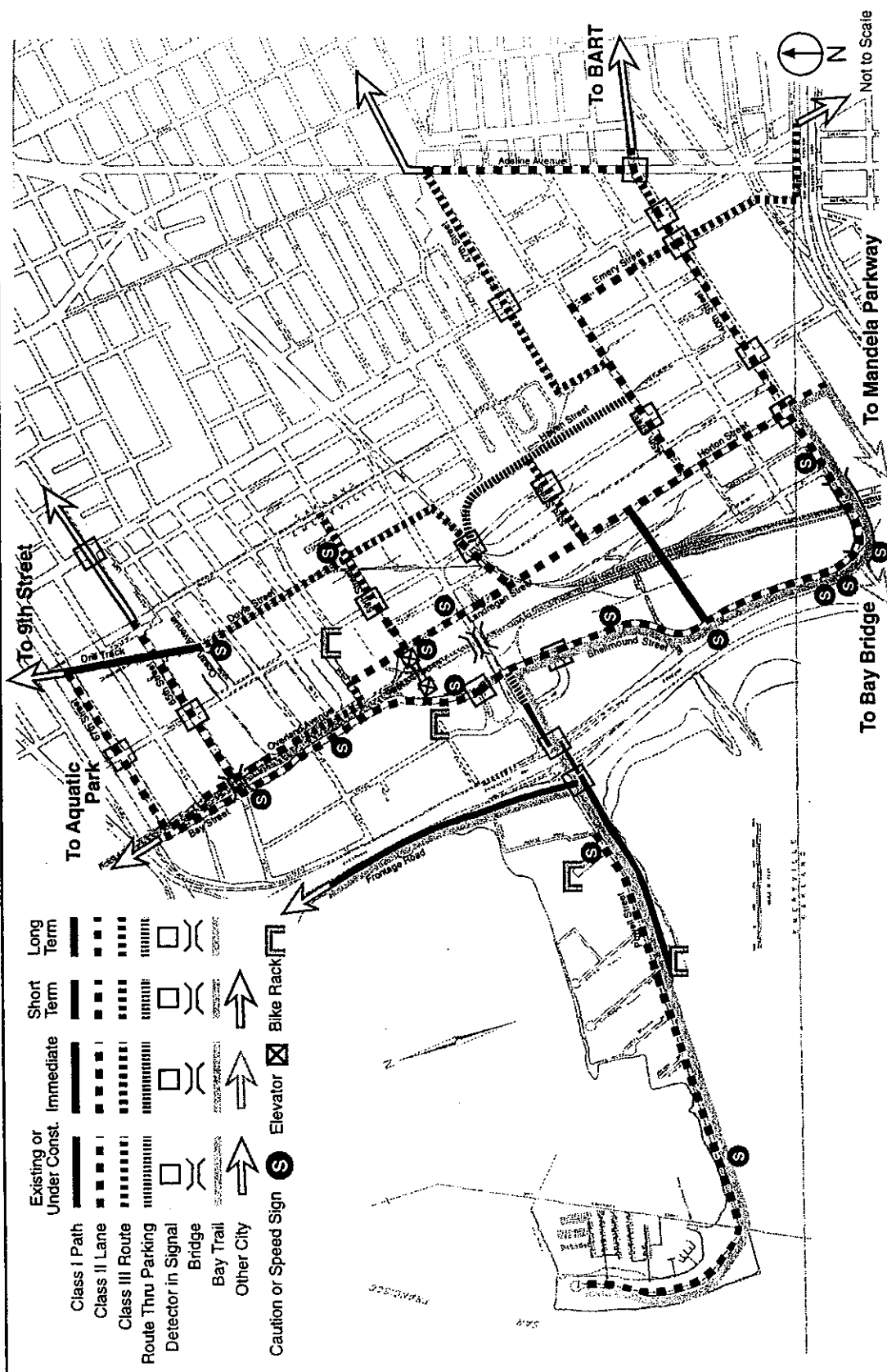


Figure 2

CLASSES OF BIKEWAYS



BIKEWAY NETWORK
AT COMPLETION

Figure 3

11/07-71-01

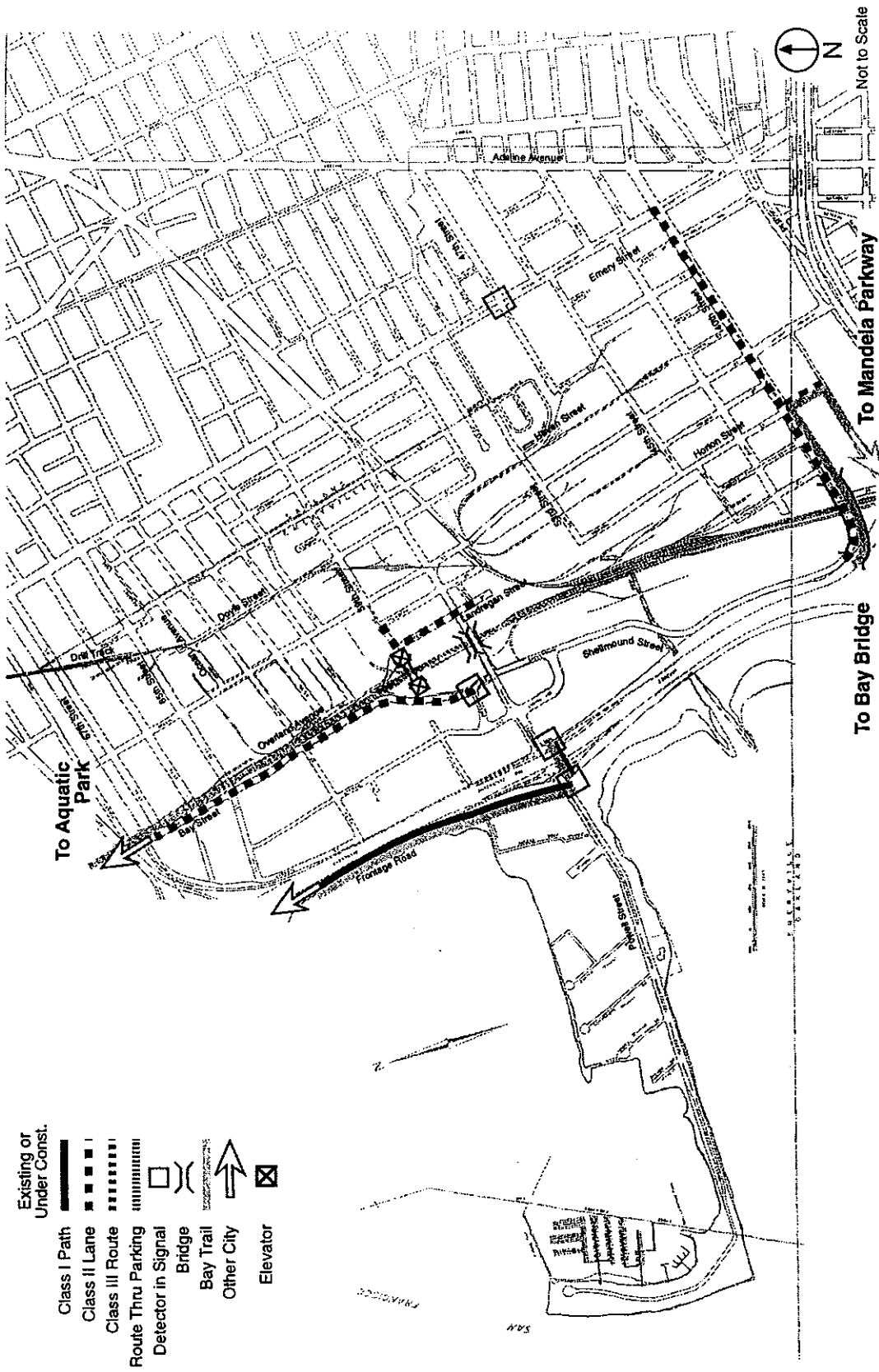
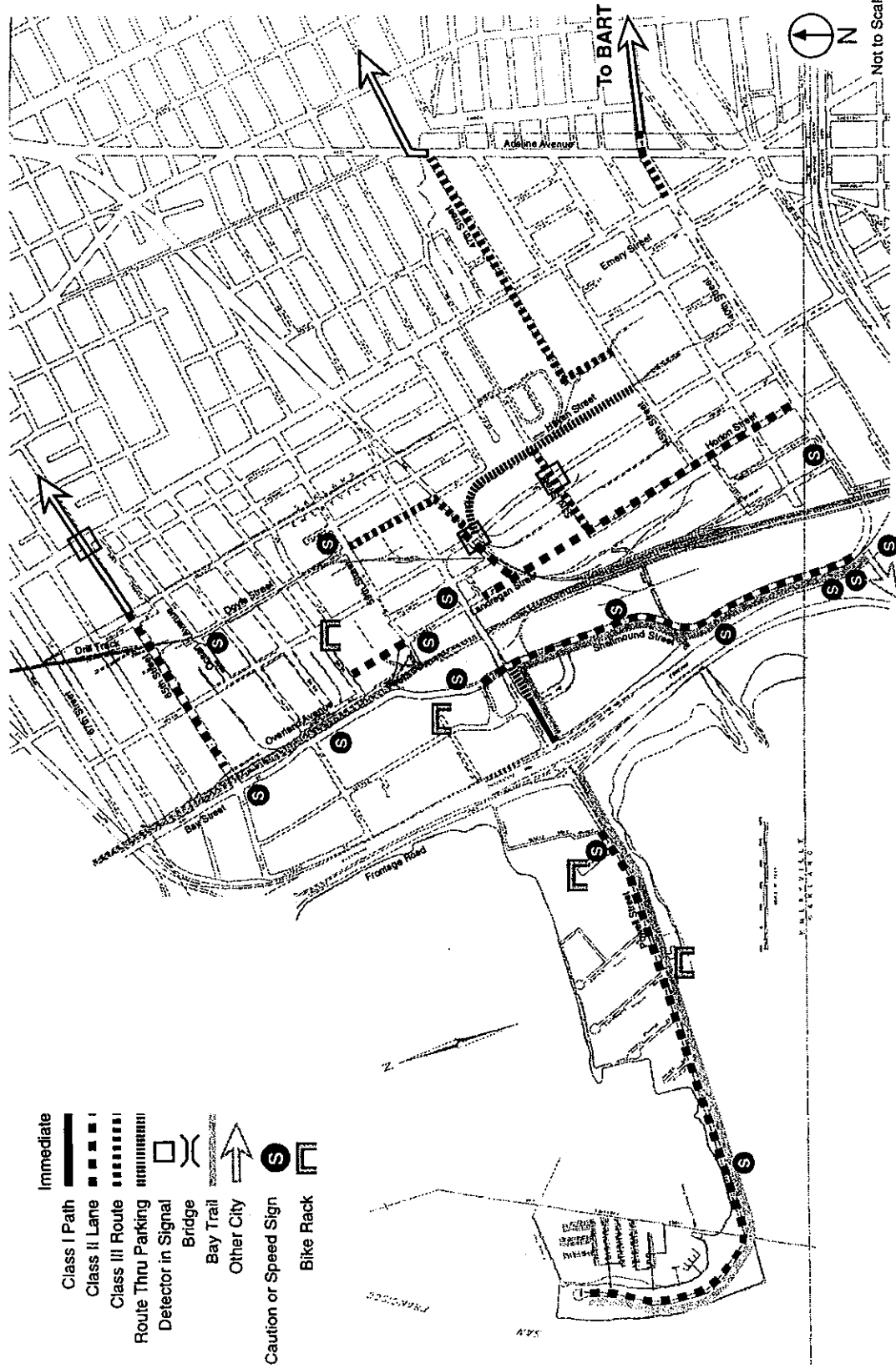


Figure 4

EXISTING BIKEWAY PROJECTS

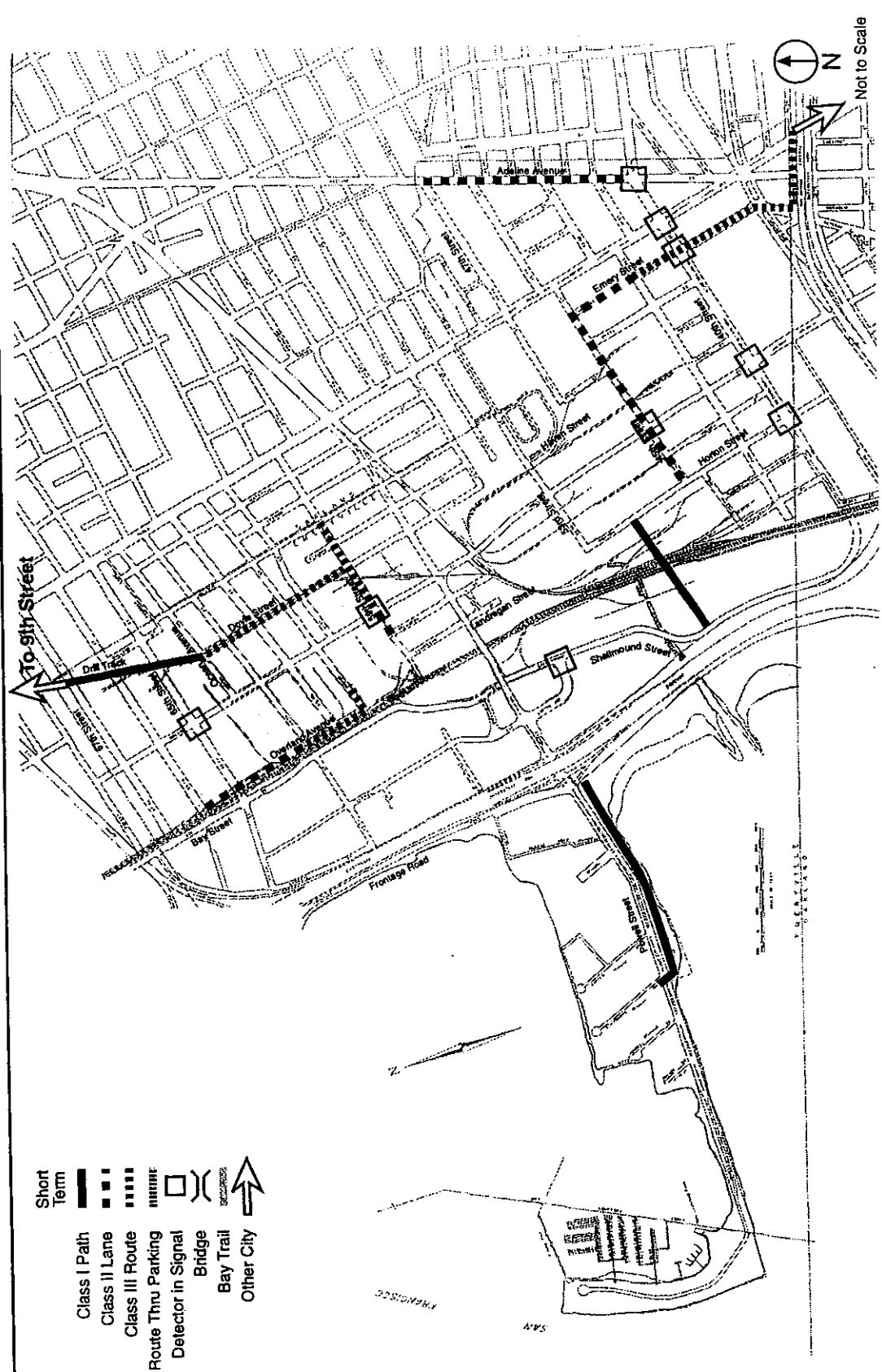
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IMMEDIATE BIKEWAY PROJECTS

Figure 5

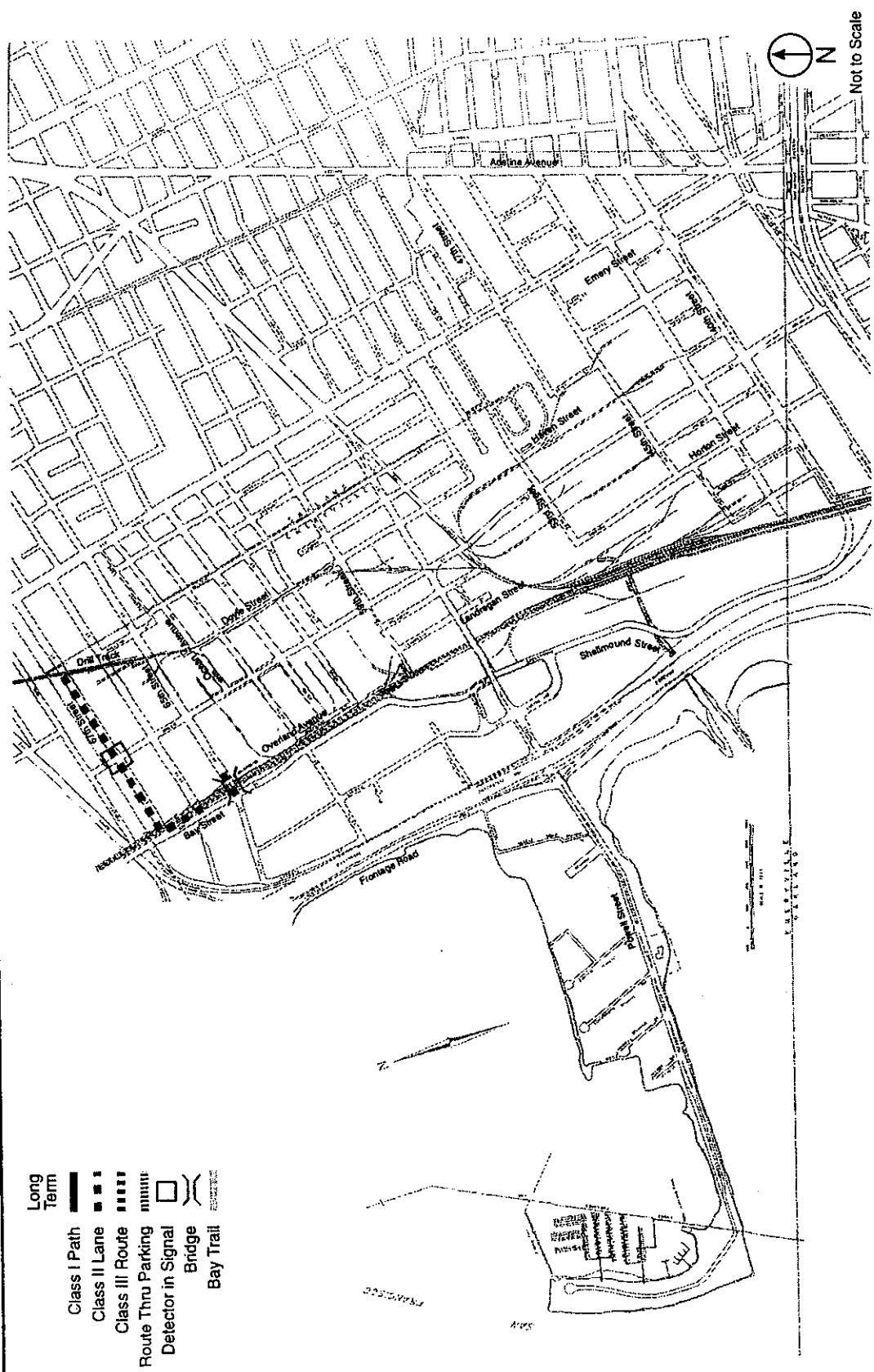
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SHORT-TERM BIKEWAY PROJECTS

Figure 6

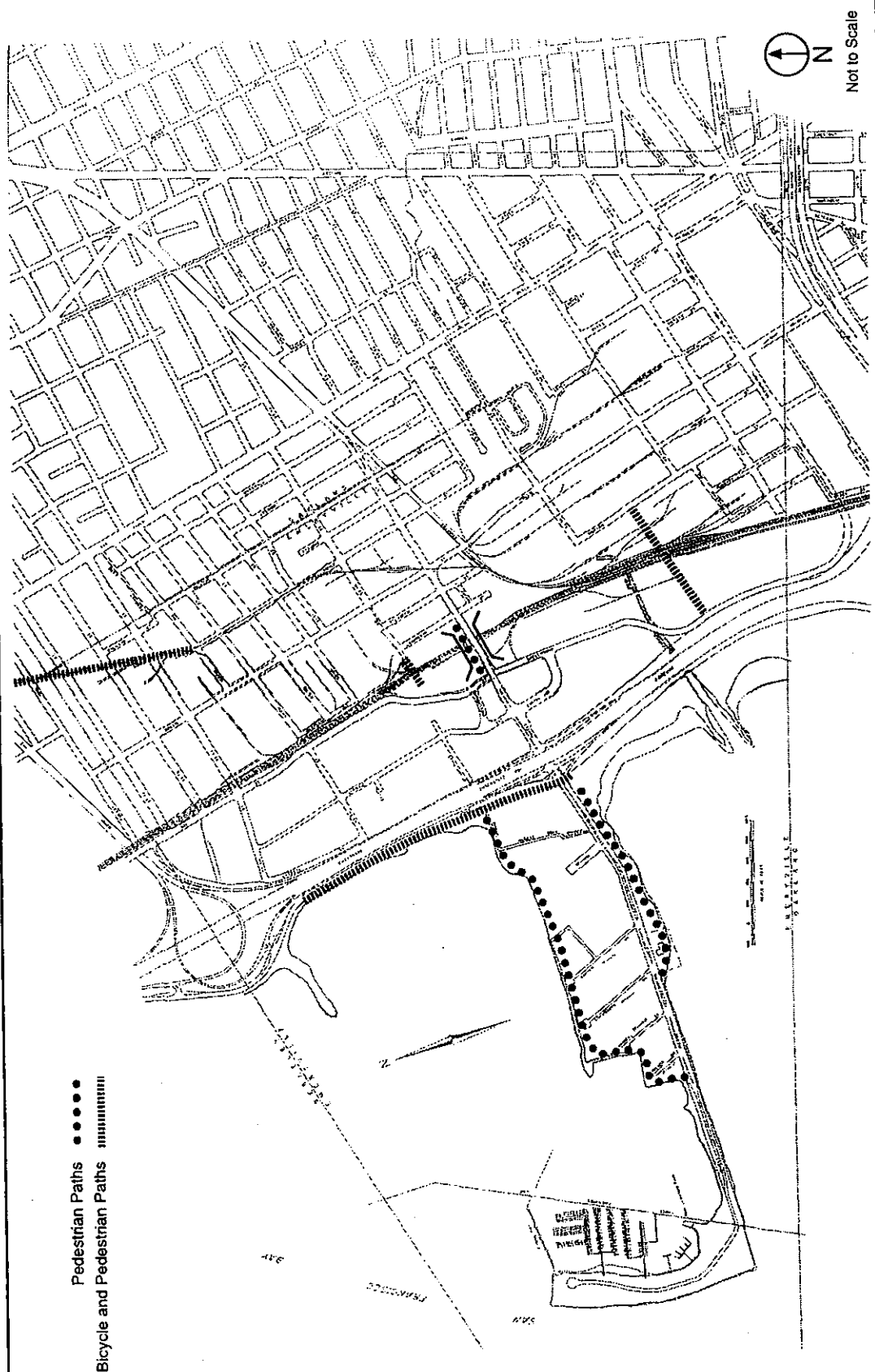
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LONG-TERM BIKEWAY PROJECTS

Figure 7

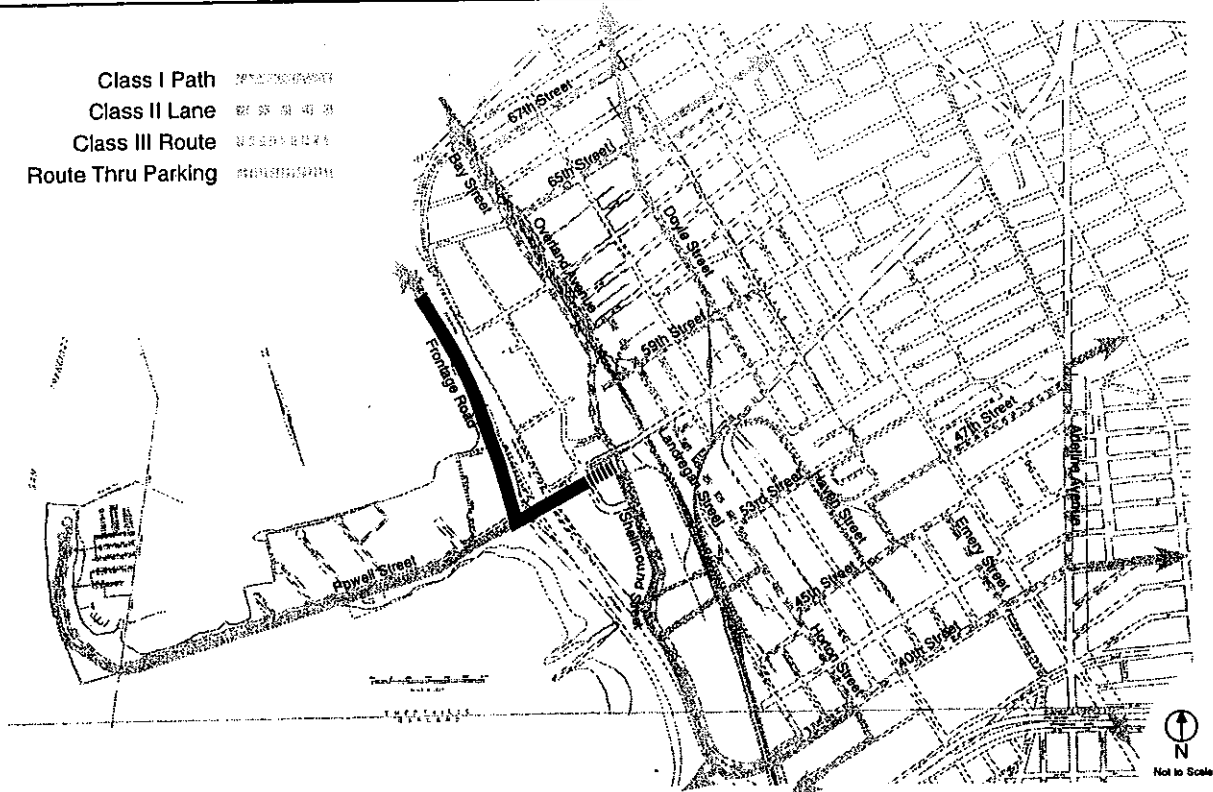
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PEDESTRIAN WAYS

Figure 8

1107-13-03



North-South Bikeways

NS1. Bay Trail Along Frontage Road and Powell Street

Location: Along west side of Frontage Road from I-80/Ashby interchange to Powell Street
Along south side of Powell Street to and across Shellmound Street

Class: Class I pedestrian-bike path along Frontage and along Powell to Christie
Route through parking from Christie to Shellmound
Crosswalk on Shellmound
Part of the San Francisco Bay Trail

Links: Berkeley bayfront and points north, west of I-80
Powell Street peninsula (a Bay Trail spur)
Shellmound to points north, south and east
Watergate access road

Status: Caltrans is completing the portion along Frontage Road and under the freeway.
Right-of-way acquisition is underway for the segment from the freeway to Shellmound.
Grant funding for design and construction must be spent by June 1999.

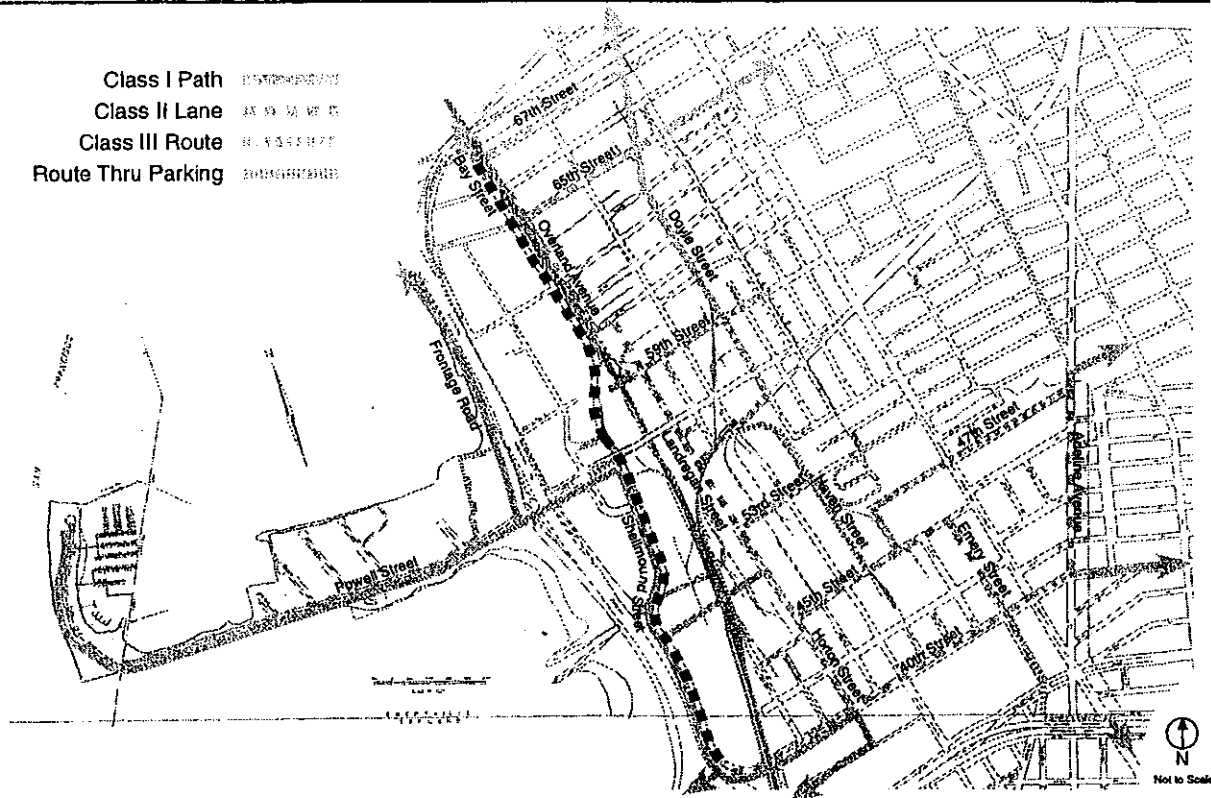
Immediate Steps: Design and build path and crosswalk along south side of Powell Street
From I-80 to and across Christie Street.
Make curb cut and sign route through parking lot along south side of Powell Street from
Christie to Shellmound.
Stripe crosswalk across Shellmound.

Figure N-S 1

1107-21-02

BAY TRAIL ALONG
FRONTAGE ROAD AND POWELL STREET





North-South Bikeways

NS2. Bay Street - Shellmound Street

Location: On Bay and Shellmound Streets from Berkeley to the 40th Street Bridge

Class: Class II bike lane on Bay and Shellmound Streets

Links: Bay Street into Berkeley to Aquatic Park
 Hollis to Folger to 9th in Berkeley
 65th to Christie and Oakland
 59th Street rail over-crossing to Amtrak and Oakland
 Powell path to peninsula and Bay Trail
 South Bayfront path to Horton
 40th to MacArthur BART station in Oakland
 Southwest under the Maze to the Bay Bridge

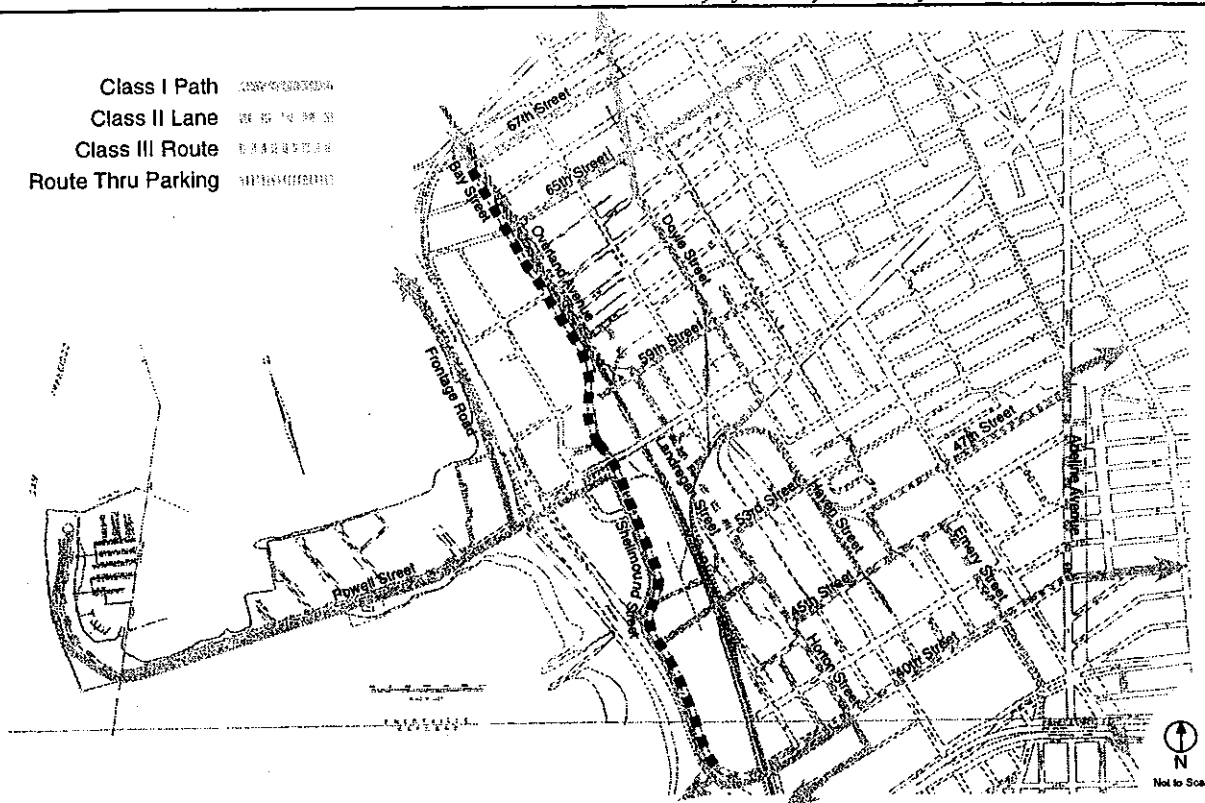
Status: Class II bike lanes are in place on Bay from 67th to just north of Shellmound, but signs say "Bike Path."
 Just north of 64th, parked cars fill the 8-foot-wide bike lane.
 No bike lanes exist on Shellmound Street south of Powell.
 Vehicles speed on Shellmound Street. A speed limit sign and a caution sign have been placed at the approach to the 40th Street bridge.
 Caltrans and Bay Trail planners are considering a link from the west end of the 40th Street Bridge under the Maze to the Bay Bridge.
 A lane-line shoulder on the bridge over Ashby Street connects Bay Street to Aquatic Park in Berkeley, but the shoulder has dirt and weeds.

Figure N-S 2

BAY STREET - SHELLMOUND STREET



1107-22-02



NS2. Bay Street - Shellmound Street (continued)

Place speed limit and caution signs at approaches to curves north and south of Temescal Creek.

Place reflective striping or dots on bike lane stripes on these two curves and their approaches, and on approach to 40th Street Bridge.

Change signs on Bay Street to read "Bike Lane."

Red-stripe curb on west side of Bay Street from 64th street north 60 feet.

Stripe, stencil and sign bike lanes on Shellmound, including a southbound through bike lane at the Shellmound/Christie south intersection.

Work with Caltrans and Bay Trail planners to link Shellmound/40th to the Bay Bridge.

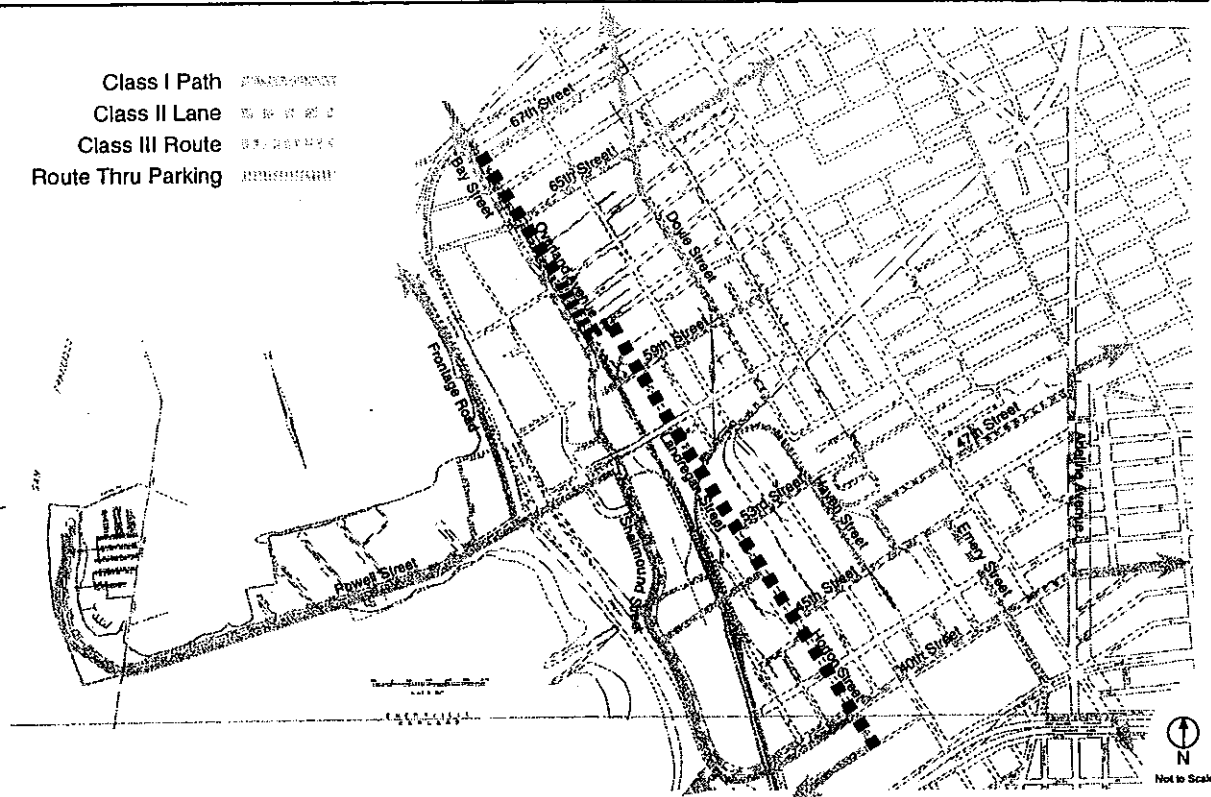
Work with Berkeley to repair and maintain the shoulders on the Bay Street bridge over Ashby Street.

Install bicycle detectors in signals at both Shellmound/Christie intersections.
Install caution signs at the crosswalk at the north end of the 40th Street Bridge, and at approaches to the crosswalk, warning motorists of cyclists crossing to take the Bay Trail spur to the Bay Bridge.

Replace existing 4-inch painted strip north of 64th with 6-inch stripe.

BAY STREET - SHELLMOUND STREET





North-South Bikeways

NS3. Overland- Landregan- Horton

- Location:** Overland Street from 67th Street to 62nd Street
62nd Street from Overland Street to Landregan Street
Landregan Street from 62nd Street to Horton Street/Stanford Avenue
Horton Street from Stanford Avenue to Yerba Buena
- Class:** Class II bike lanes on Overland from 67th to 64th
Class III signed route on Overland from 64th to 62nd, and on 62nd from Overland to Landregan
Class II bike lanes on Landregan and Horton
Horton south of 40th is part of the San Francisco Bay Trail.
- Links:** 65th to Christie and Oakland
59th to Amtrak and Oakland
53rd to Haven Path and Oakland
West Bayfront path to Shellmound
45th to Emery
40th to Shellmound and Oakland
Horton to Yerba Buena to Mandela Parkway in Oakland
- Status:** Class II bike lanes exist on Landregan from 59th to Haruff, and on Horton from 40th south one block.
Chiron must extend Horton to Landregan with Class II bike lanes, and eliminate perpendicular parking on Horton and Landregan, by June 1999.

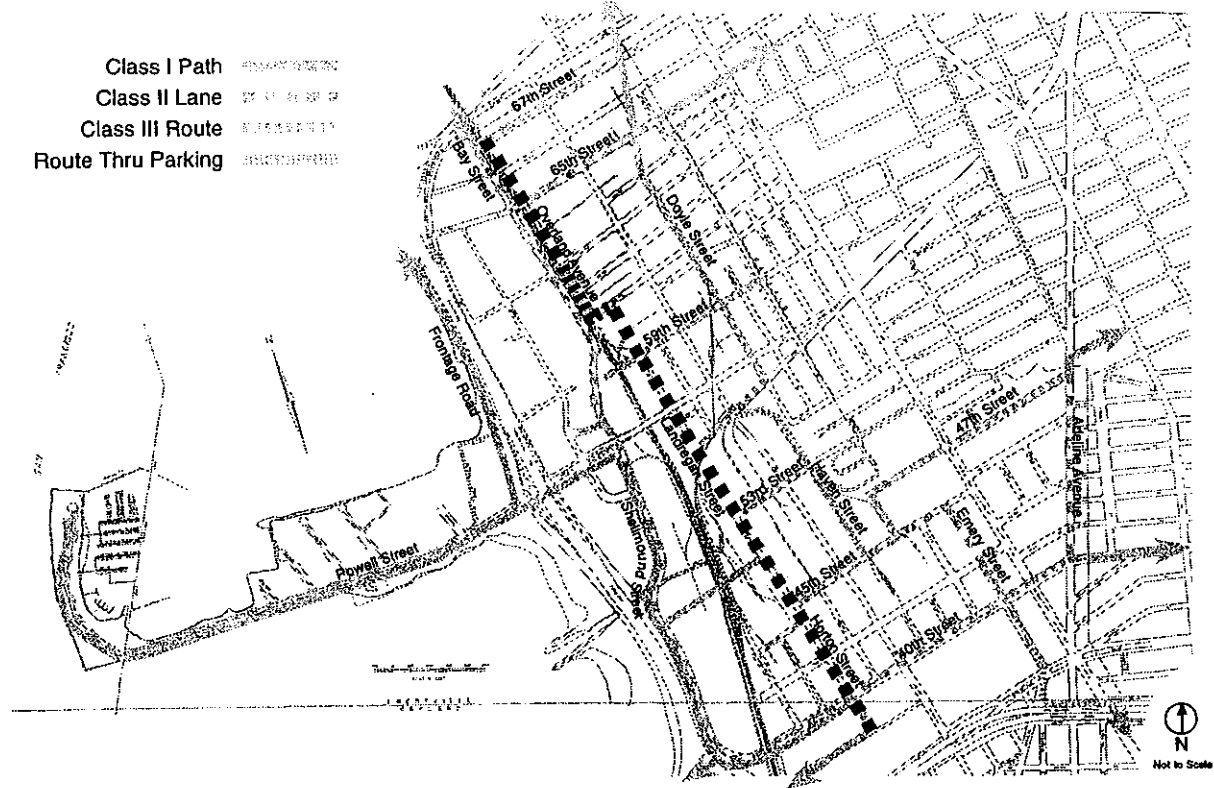
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Figure N-S 3

1107-24-02

OVERLAND - LANDREGAN - HORTON



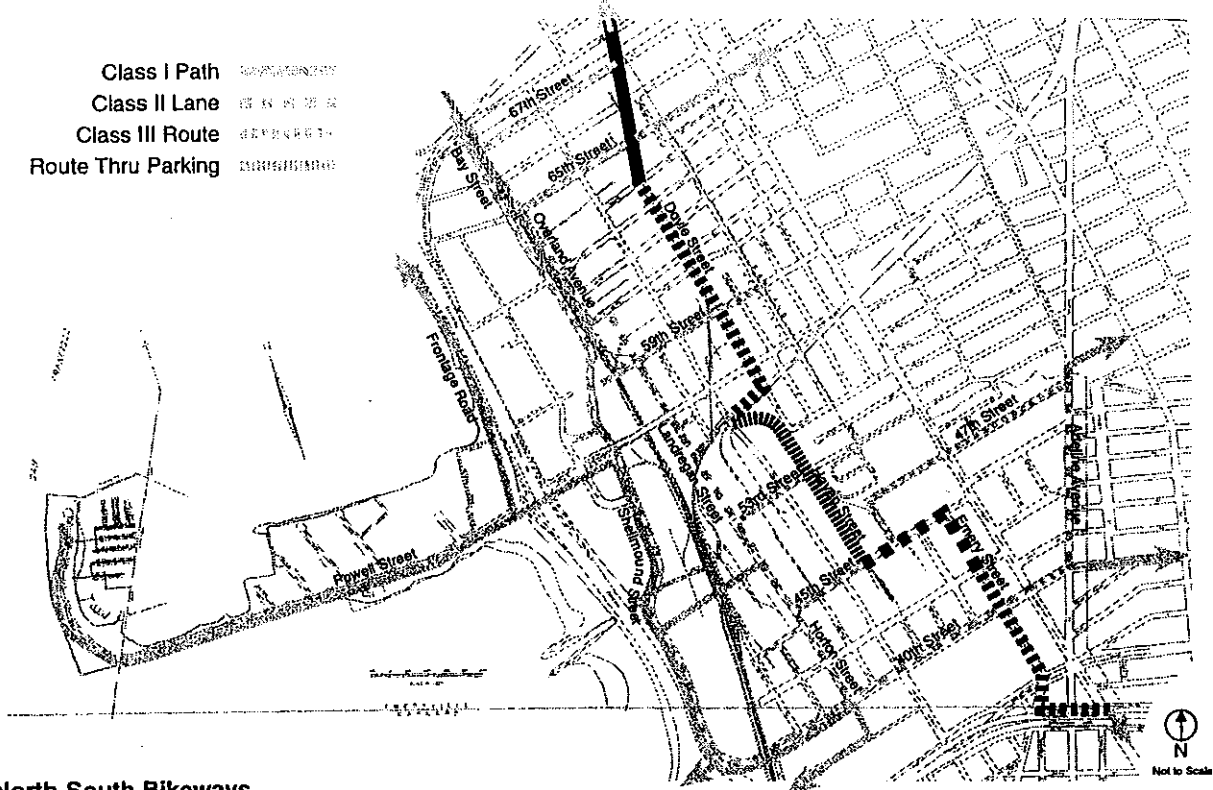


North-South Bikeways

NS3. Overland- Landregan- Horton (continued)

- Status:** Extension of Landregan north to 62nd will be required as part of the Emery Station mixed use development.
Overland between 62nd and 64th is too narrow for Class II bike lanes.
Oakland's draft bicycle plan and Bay Trail plans show a bikeway from Horton-Yerba Buena to Mandela Parkway.
- Immediate Steps:** Improve signage of existing lanes on Landregan.
Chiron will extend Horton to Landregan with Class II bike lanes, and eliminate parking on Horton and Landregan.
Wareham will extend Landregan from 59th to 62nd, including Class II bike lanes.
Stripe bike lanes on Landregan from Haruff to the current end.
Remove parking on Horton south of Chiron to the Oakland City limit.
Stripe bike lanes on Horton from 53rd to 40th.
- Short-Term Steps:** Install bicycle detector for existing traffic signal at Horton/40th.
Extend Overland from 64th to 66th with Class II bike lanes as Ryerson Steel and Grove Valve redevelop.
Sign Class I bike route on Overland from 64th to 62nd.
Stripe, stencil and sign Class II bike lanes on 62nd from Overland to Landregan.
- Long-Term Steps:** If adjacent properties redevelop, extend Overland from 66th to 67th with Class II bike lanes.

<p>Figure N-S 3</p> <p>1107-25-02</p>	<p>OVERLAND - LANDREGAN - HORTON</p>	
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North-South Bikeways

NS4. 9th Street Drill Track - Doyle - Haven - Emery

Location: 9th Street Drill Track railroad right-of-way from 9th Street north of Ashby Ave. to Ocean Ave.
 Doyle from Ocean Avenue to Stanford
 (Connecting via Stanford - East-West Route No. 7)
 Old Haven Street railroad right-of-way from Stanford to 45th
 (Connecting via 45th Street - East-West Route No. 10)
 Emery Street from 45th Street to Peralta Street
 Peralta Street from Emery Street to 36th Street
 35th Street from Peralta Street to San Pablo Avenue

Class: Class I bike path on 9th Street Drill Track
 Signed route on Doyle from 65th to Stanford
 Bike route through parking lot on old Haven Street right-of-way
 Class II bike lanes on Emery to Park
 Class III signed bike route on Emery, Peralta and 36th

Links: 9th Street in Berkeley
 59th to Amtrak and Oakland
 53rd to Horton
 45th to Horton
 Park Avenue businesses
 East Baybridge
 San Pablo Avenue south into Oakland

Status: In Berkeley, 9th has bike lanes to Heinz. South of Heinz 9th dead-ends at the 9th St. Drill Track, half a block north of Ashby.

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Figure N-S 4

1107-26-02

**9TH STREET DRILL TRACK - DOYLE-
HAVEN - EMERY**



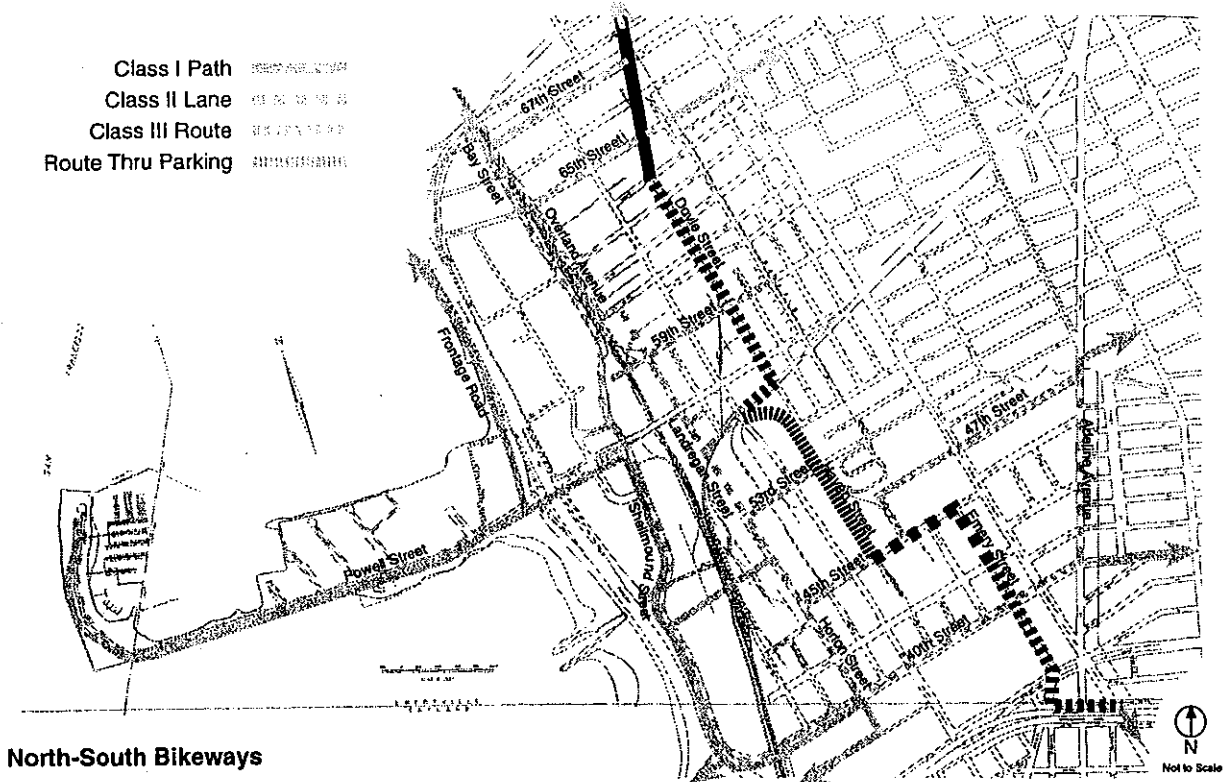
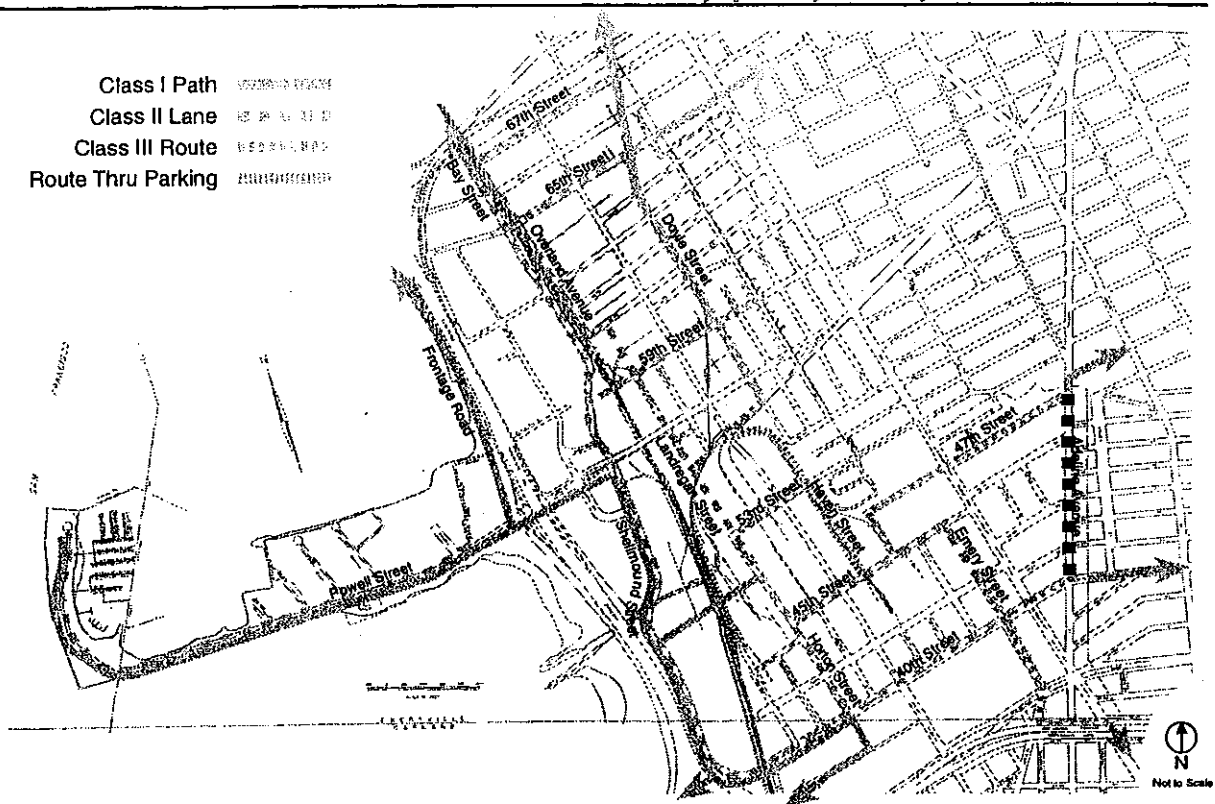


Figure N-S 4

1107-27-02

**9TH STREET DRILL TRACK - DOYLE-
HAVEN - EMERY**

North-South Bikeways

NS5. Adeline Street

Location: Adeline Street between 53rd Street in Oakland and 40th Street

Class: Class II bike lanes

Links: Adeline to 53rd Street in Oakland and north to Berkeley
47th to Doyle to 45th
40th to MacArthur BART station, Emery and Horton (Bay Trail)

Status: Oakland's draft bicycle plan shows a bikeway on 53rd Street from Adeline Street east. Adeline Street has four vehicle lanes, but may only have traffic volumes requiring two. Adeline carries about 4,700 vehicle trips per day. A two-lane street (one lane each way) can handle up to 10,000 trips per day without congestion. If two lanes are removed, there will be room for Class II bike lanes.

Immediate Steps: Work with Oakland to plan Class II bike lanes on Adeline between 53rd and 47th.

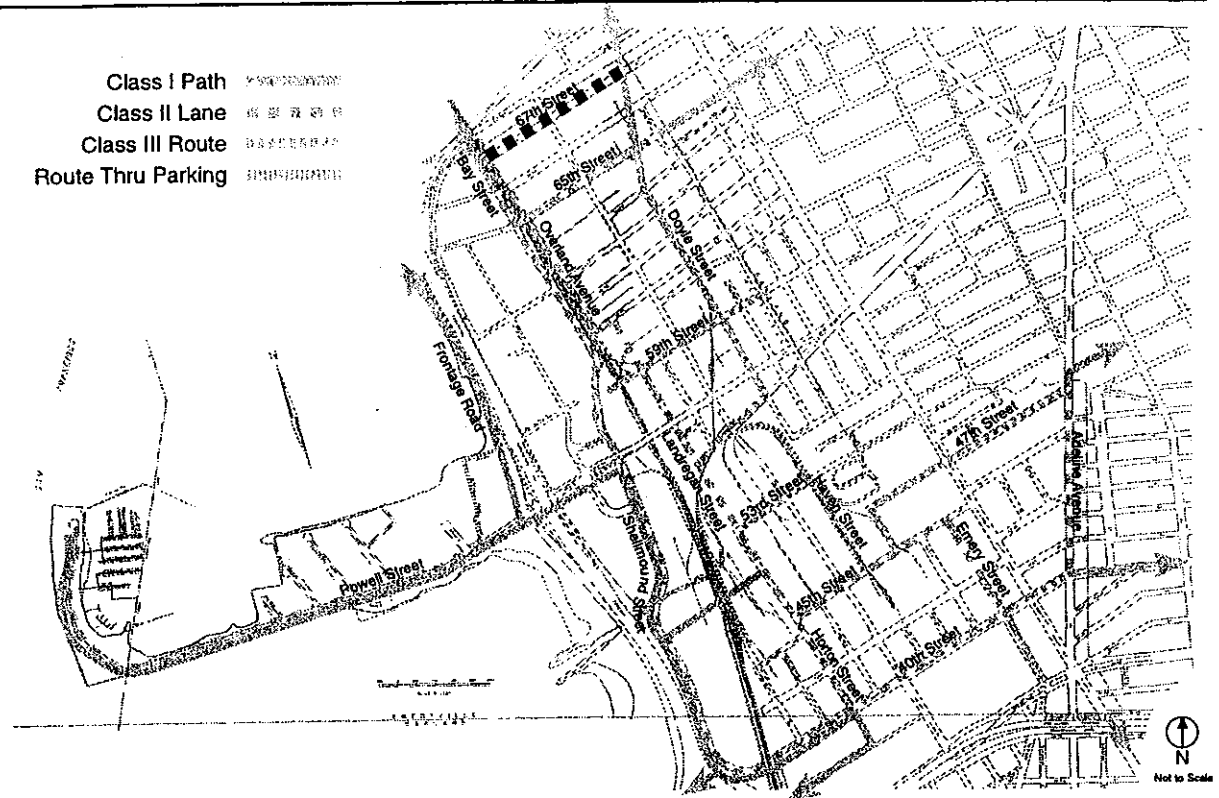
Short-Term Steps: Reduce the number of travel lanes on Adeline from four to two from 53rd to 47th. Stripe, stencil and sign Class II bike lanes on Adeline from the Oakland border (just northeast of 47th) to 40th.

Figure N-S 5

ADELINE STREET



1107-28-02



East-West Bikeways

EW1. 67th Street

Location: On 67th Street from 9th Street Drill Track to Bay Street

Class: Class II bike lanes

Links: Hollis and 9th St. Drill Track to Berkeley
Across tracks to Bay Street

Status: This street is wide enough for Class II bike lanes, but there is not enough vehicular traffic to need them at this point.
There is no signal at Hollis, but the signal at 65th breaks up traffic.
Perpendicular parking exists on 67th near Hollis.

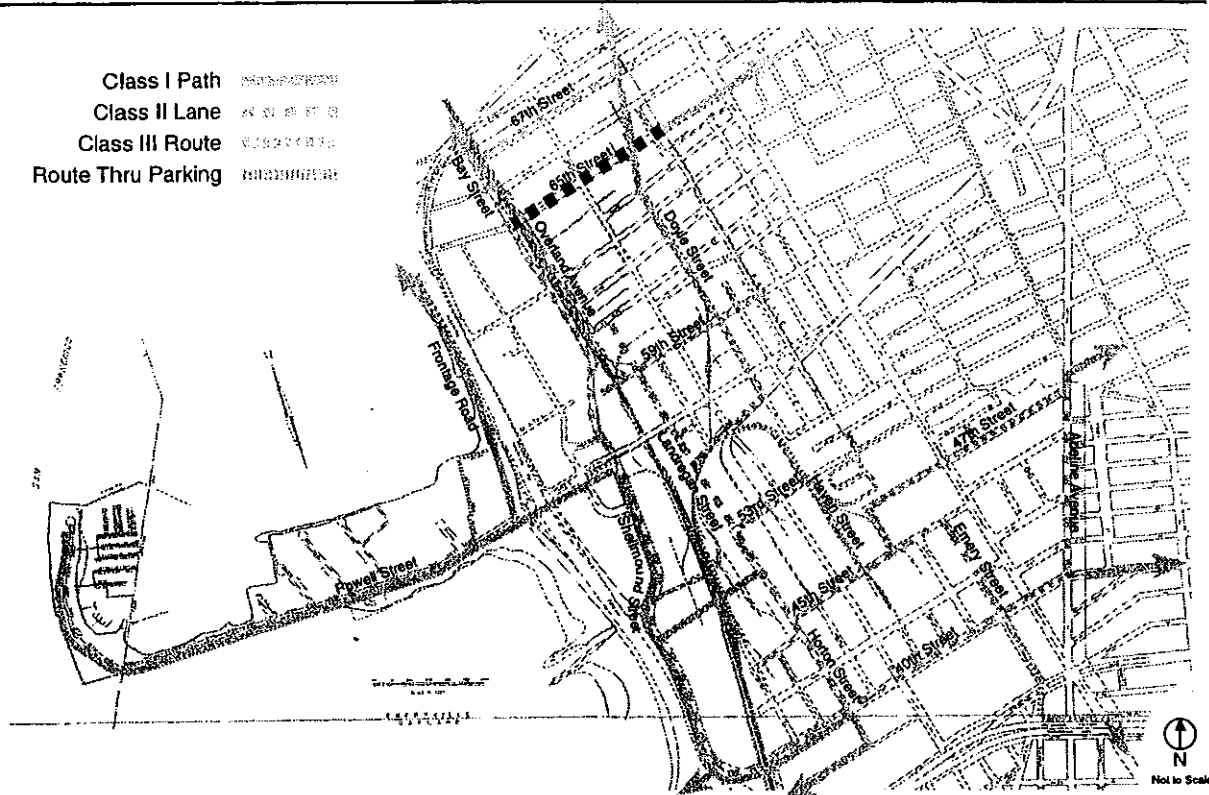
Long-Term Steps: If properties redevelop north of 66th:
Change perpendicular parking to parallel and stripe Class II bike lanes on 67th from Bay Street to the Drill Track.
Include bicycle detectors when a signal is warranted at Hollis / 67th.

Figure E-W 1

67TH STREET



1107-31-02



East-West Bikeways

EW2. 65th Street

Location: On 65th Street from Bay Street to the Oakland border

Class: Class II bike lanes

Links: Bay Street to Berkeley and western Emeryville
9th Street Drill Track path between Berkeley and most of Emeryville
Oakland and beyond to southeastern Berkeley

Status: This street is wide enough for Class II bike lanes.
The main railroad crossings have concrete and metal pavement for safe crossing.
The spur crossing to the east has a smooth asphalt crossing surface.
This street is part of a regional route; Oakland and Berkeley are considering designating 65th and Woolsey streets as bikeways.
Perpendicular parking exists on the north side of 65th from Hollis to the railroad tracks, but the adjacent land uses are redeveloping.

Immediate Steps: Convert parking on 65th from perpendicular to parallel, from Hollis west to Union Pacific's main line.
Stripe, stencil and sign Class II bike lanes on 65th from Bay to Oakland.
Work with Oakland and Berkeley to connect 65th Street to their bikeway systems.
Work with Oakland to improve crossing on San Pablo Avenue.

Short-Term Steps: Install bicycle detectors for existing signal at Hollis/65th intersection.

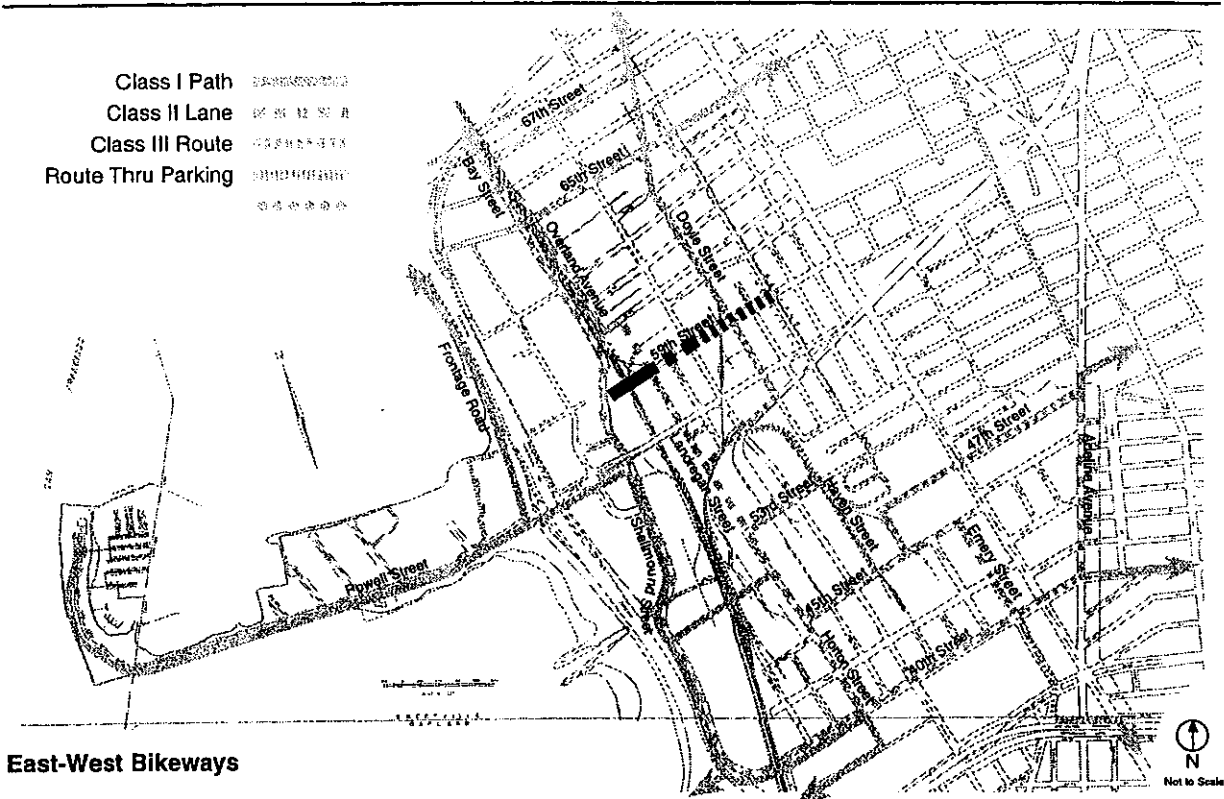
Long-Term Steps: Include bike lanes in planned 65th St. bridge over Union Pacific main line.

Figure E-W 2

65TH STREET



1107-32-02



East-West Bikeways

EW3. 59th Street

Location: From Bay Street across Union Pacific's mainline railroad tracks
 Alongside the Amtrak station to 59th St/Landregan
 On 59th Street from Landregan Street to Vallejo (Oakland border)

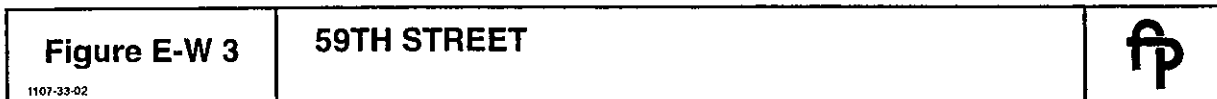
Class: Overcrossing from Shellmound to Landregan
 Class II bike lanes on 59th from Landregan to Hollis
 Class III signed bike route on 59th from Hollis to Vallejo

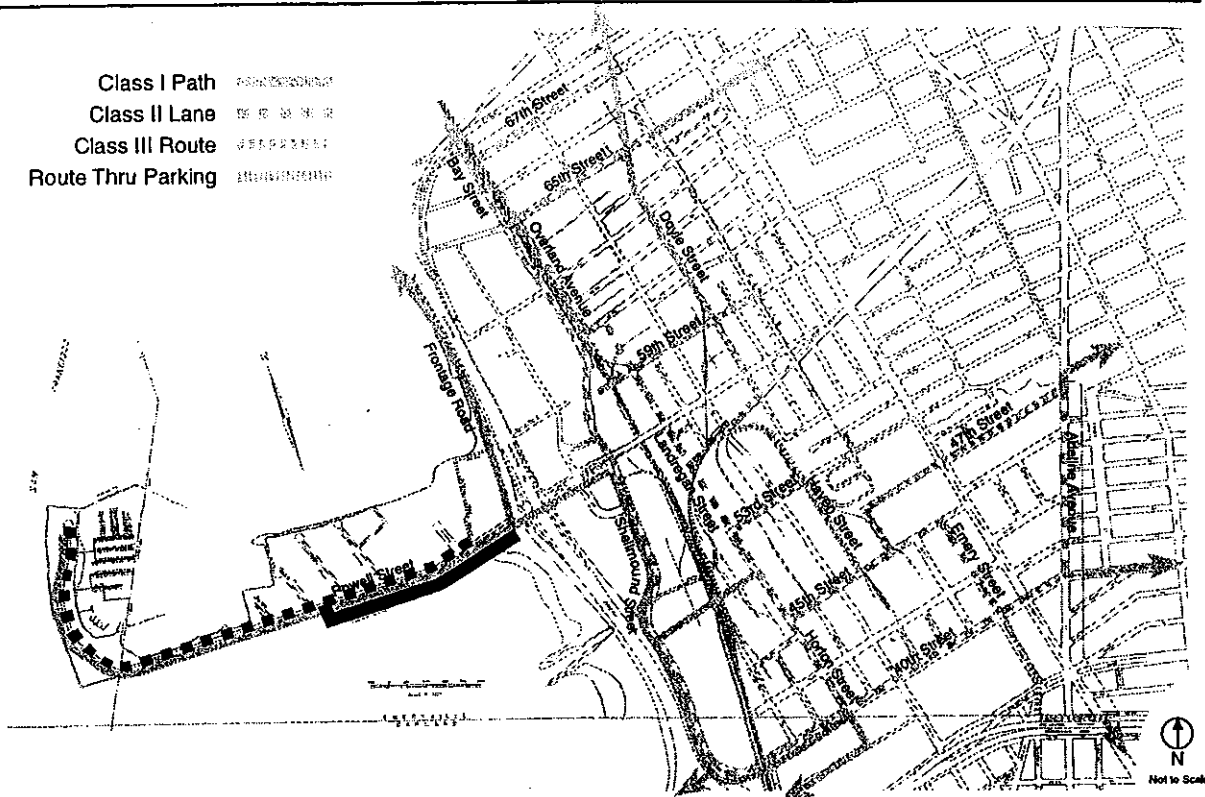
Links: Bay Street to businesses, residences, Berkeley and Oakland
 Landregan to 62nd/Overland and Horton
 Doyle to Stanford and Drill Track

Status: The bike-pedestrian over-crossing and its approaches have been completed.
 Vandalism in the west elevator indicates that it is unsafe. The public cannot see in on the first floor, nor the entrance.
 59th has bike lanes from Landregan to Peladeau.
 Between Peladeau and Hollis, 59th is a 16-foot-wide one-way street.
 East of Hollis, 59th is wide enough for a Class III signed route with parallel parking.
 Angle parking exists on the south side of 59th between Hollis and the railroad tracks to the east.
 Crossing Hollis could be difficult.

Immediate Steps: Install and monitor video cameras in the 59th Street over crossing elevators and at their entrances.
 On south side of 59th between Hollis and the railroad tracks to the east, work with landowner and railroad to change parking on 59th to parallel.
 Sign 59th between Hollis and Vallejo as a Class III bike route.

Short-Term Steps: As adjacent property redevelops, stripe, stencil and sign Class II bike lanes between Peladeau and Hollis.
 As adjacent property redevelops, install a traffic signal at 59th/Hollis with bicycle detectors.





East-West Bikeways

EW4. Powell Street Peninsula Park

Location: Along and on Powell Street from Frontage Road to the Public Marina

Class: Class I bike path on south side of Powell from Bay Trail to Fire Station
Class II bike lanes from Watergate entrance to Marina
San Francisco Bay Trail spur

Links: Bay Trail north to Berkeley
Powell Street east to Bay Street

Status: East Bay Regional Parks District has funding to plan a park on the south side of Powell, but has not released it.
Powell Street west of Watergate Towers entrance is wide enough for Class II bike lanes with existing parking.
Speeding is a concern on Powell. There is one speed limit stencil west of Watergate condominiums, but no speed limit signs are posted.

Immediate Steps: Stripe, stencil and sign Class II bike lanes on Powell from Watergate Towers entrance to the end of Powell Street.
Install speed limit signs.

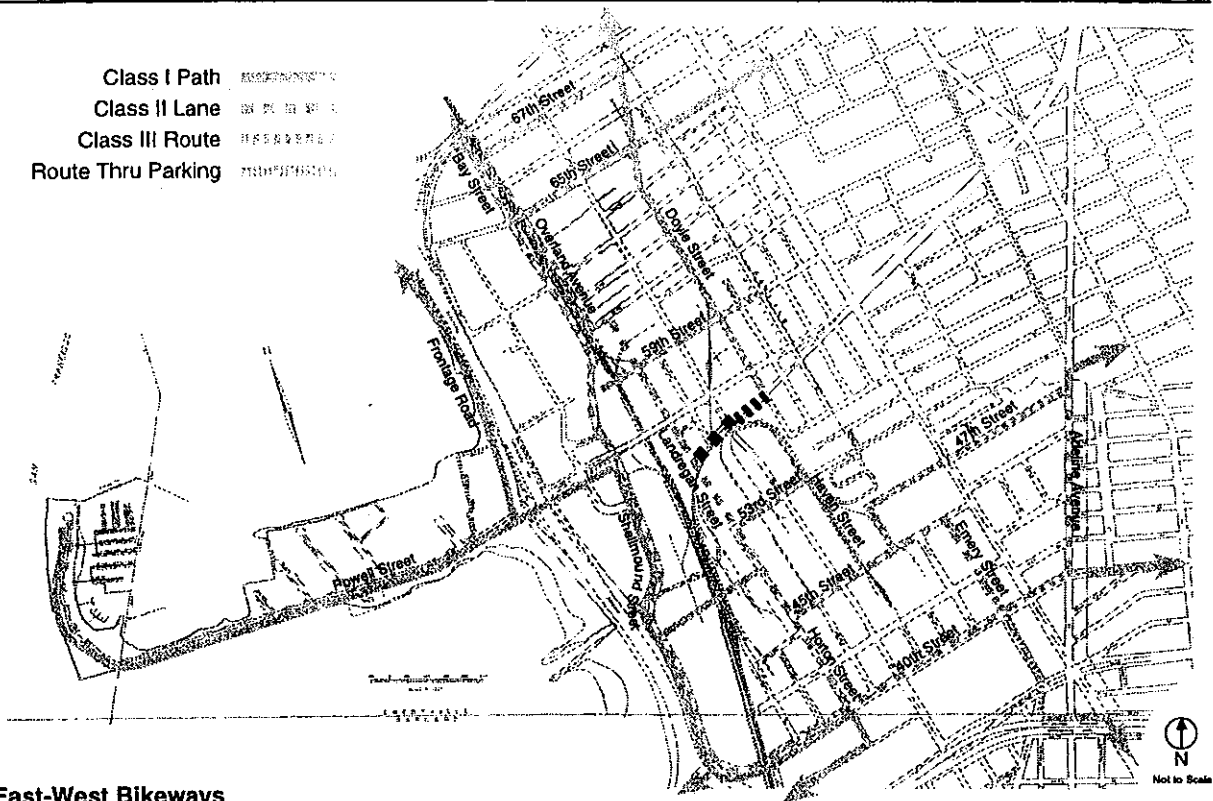
Short-Term Steps: Work with East Bay Regional Park District to include a Class I bike path from the Bay Trail crosswalk to the Fire Station, as well as a pedestrian path, in the park south of Powell Street.
Design the path and signs to direct westbound cyclists across Powell Street at the crosswalk near the Fire Station.

Figure E-W 4

POWELL STREET PENINSULA PARK



1107-35-02



East-West Bikeways

EW5. Stanford Avenue

Location: On Stanford Avenue from the Landregan-Horton extension to Doyle Street

Class: Class II bike lanes from Landregan-Horton to Hollis
Class III bike route from Hollis to Haven

Links: Landregan-Horton, Doyle-Haven

Status: An extension and upgrade of Stanford is being designed as part of improvements to Chiron facilities. The project will include extending Stanford from Hollis to the Landregan-Horton extension with Class II bike lanes, installing a signal at Hollis with bicycle detectors, and widening Stanford from Haven to Doyle for two-way traffic. Construction is scheduled for completion by June 1999.

Immediate Steps: Build bike lane on Stanford between Horton and Hollis as planned, including striping, stencils, signs and bicycle detectors for traffic signal.
Sign a Class III bike route on Stanford from Hollis to Doyle as planned.

Figure E-W 5

STANFORD AVENUE



1107-41-02

EW6. Powell Street Bridge Pedestrian Over crossing

Class: Pedestrian path

Status: A pedestrian overcrossing exists. It provides only stair access, but the elevator crossing at 59th provides a handicapped crossing over the railroad tracks.
No proper path connects the Powell Street Bridge Over crossing to Bay and Landregan Streets. This crossing is currently isolated.

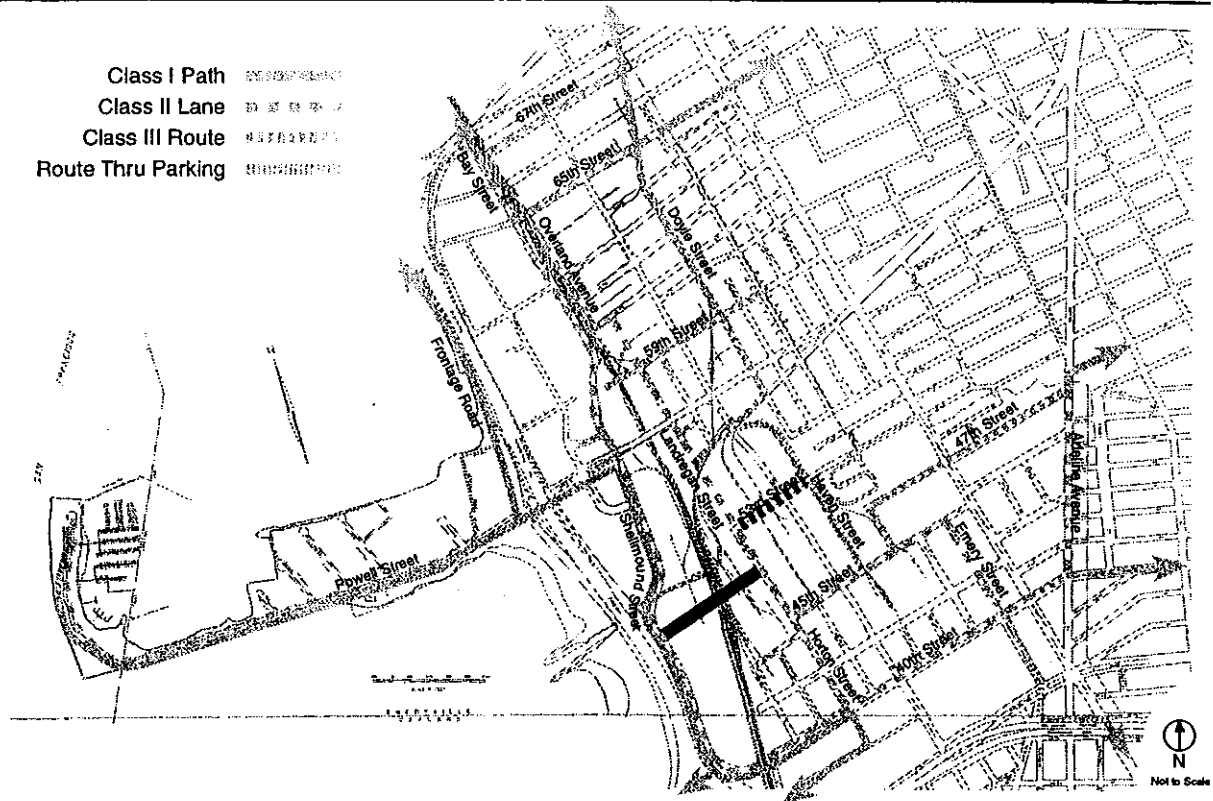
Short-Term Steps: As the area bounded by 59th, Powell, Landregan and Shellmound redevelops, design the sites to include a well-used, visible, lighted walkway from Bay to Landregan via the Powell Street Bridge pedestrian over crossing.

Figure E-W 6

1107-36-02

POWELL STREET BRIDGE PEDESTRIAN OVERCROSSING





East-West Bikeways

EW6. South Bayfront - 53rd Street

Location: From Shellmound Street across Union Pacific main tracks to Horton Street
53rd Street from Horton Street to Haven Street


Class: Class I bike path from Shellmound across tracks to Horton
Class III signed route on 53rd from Hollis to Horton to Haven

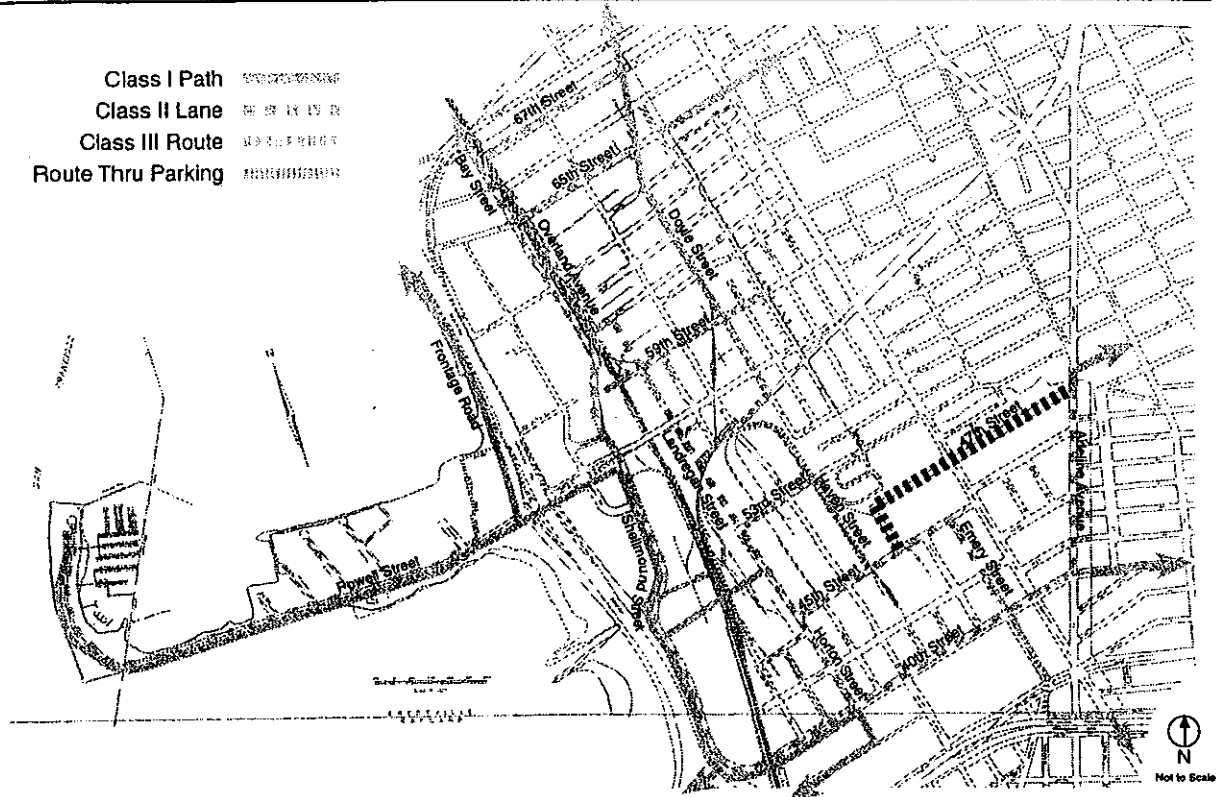
Links: Shellmound to Berkeley, Powell Street Peninsula, and Oakland
Horton to Landregan and 40th
Haven to Stanford and 45th

Status: Chiron will rebuild 53rd west of Hollis with a Class III signed bike route.
At the Hollis/53rd intersection, a left turn lane will be added.
The South Bayfront path will be developed as South Bayfront develops.

Immediate Steps: Sign Class III bike route on 53rd from Hollis to Haven.
Chiron will include Class III signed bike route on 53rd from Horton to Hollis
With Chiron improvements to Hollis/53rd intersection, install bicycle detectors for signal, in left turn lane as well as right through lanes.
As the South Bayfront redevelops, work with the developer to obtain right-of-way and over crossing for path from Shellmound across the railroad tracks to Horton.

Short-Term Steps: Build Class I path across South Bayfront from Shellmound over the railroad tracks to Horton.

<p>Figure E-W 6</p> <p>1107-42-02</p>	<p>SOUTH BAYFRONT - 53RD STREET</p>	
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East-West Bikeways

EW7 47th Street - Doyle Street

Location: 47th Street from Adeline Street to Doyle Street
Doyle Street from 47th Street to 45th Street

Class: Class III signed route

Links: Adeline and 53rd or 51st into Oakland
45th to Horton and Emery

Status: Oakland plans to connect 47th to 51st or 53rd.
San Pablo Avenue has a traffic signal at 47th.
Doyle has perpendicular parking on the northern third of the west side, but low traffic volume.

Immediate Steps: Sign a Class III bike route on 47th from Doyle to Adeline and on Doyle from 47th to 45th.

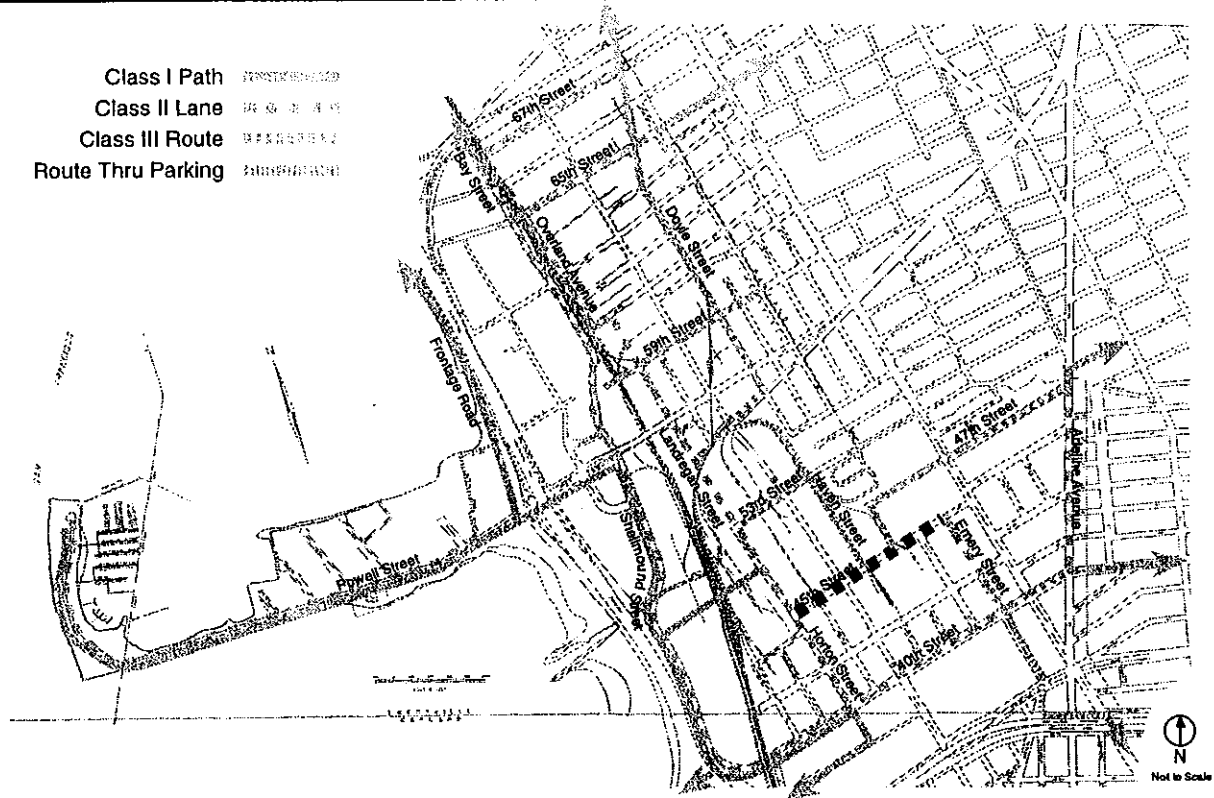
Short-Term Steps: Install a bicycle detector in the existing traffic signal at San Pablo/47th.

Figure E-W 7

47TH STREET - DOYLE STREET



1107-43-02



East-West Bikeways

EW8. 45th Street

Location: On 45th Street from Horton Street to Emery Street

Class: Class II bike lanes

Links: Horton to South Bayfront and 40th
Haven to 53rd
Emery to 40th

Status: There is currently no sidewalk on the south side of 45th, although there is adequate right-of-way south of the curb.
East of Hollis, 45th is wide enough for a Class III signed route or Class II bike lanes if parking is removed.
Crossing Hollis at 45th could be difficult.

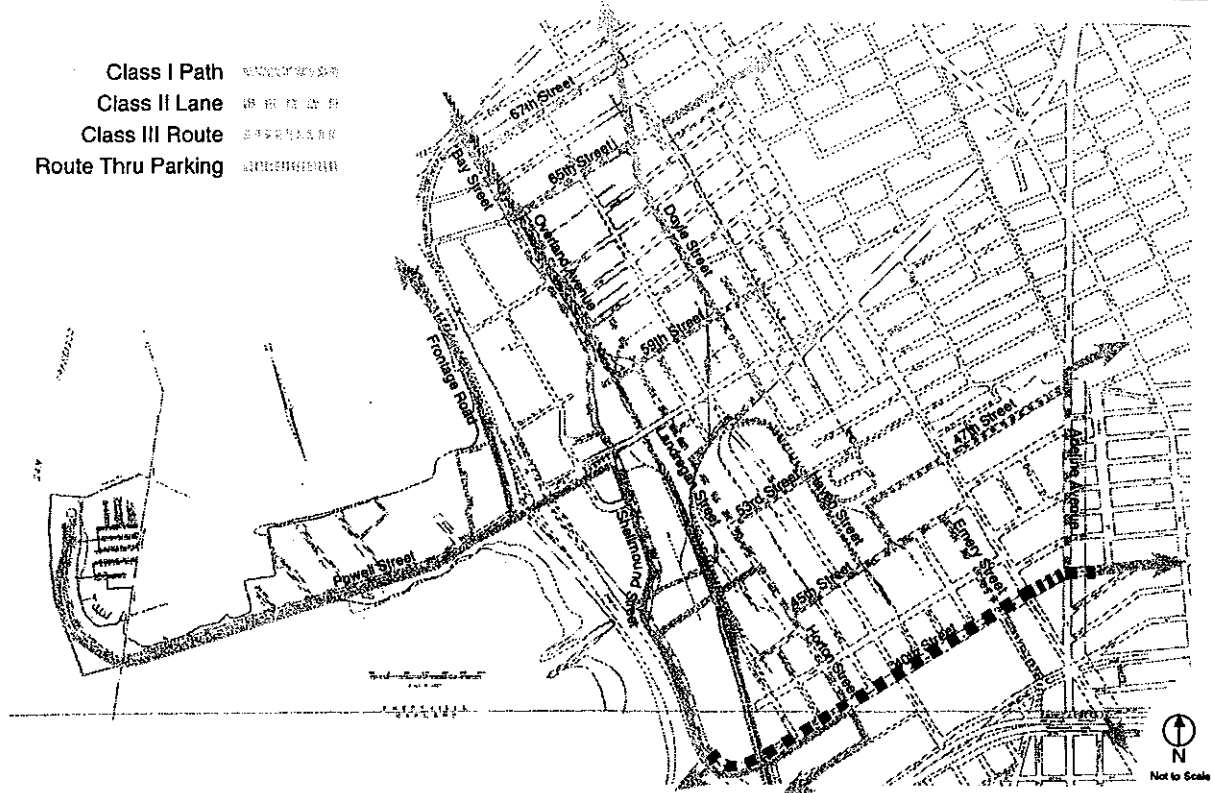
Short-Term Steps: Sign 45th as a Class III route (or stripe, stencil and sign Class II lanes if traffic projections are high) from Horton to Emery.
If a signal is warranted at 45th/Hollis, include a bicycle detector.

Figure E-W 8

45th STREET



1107-44-02



East-West Bikeways

EW9. 40th Street

Location: On 40th Street from Shellmound Street to the Oakland border

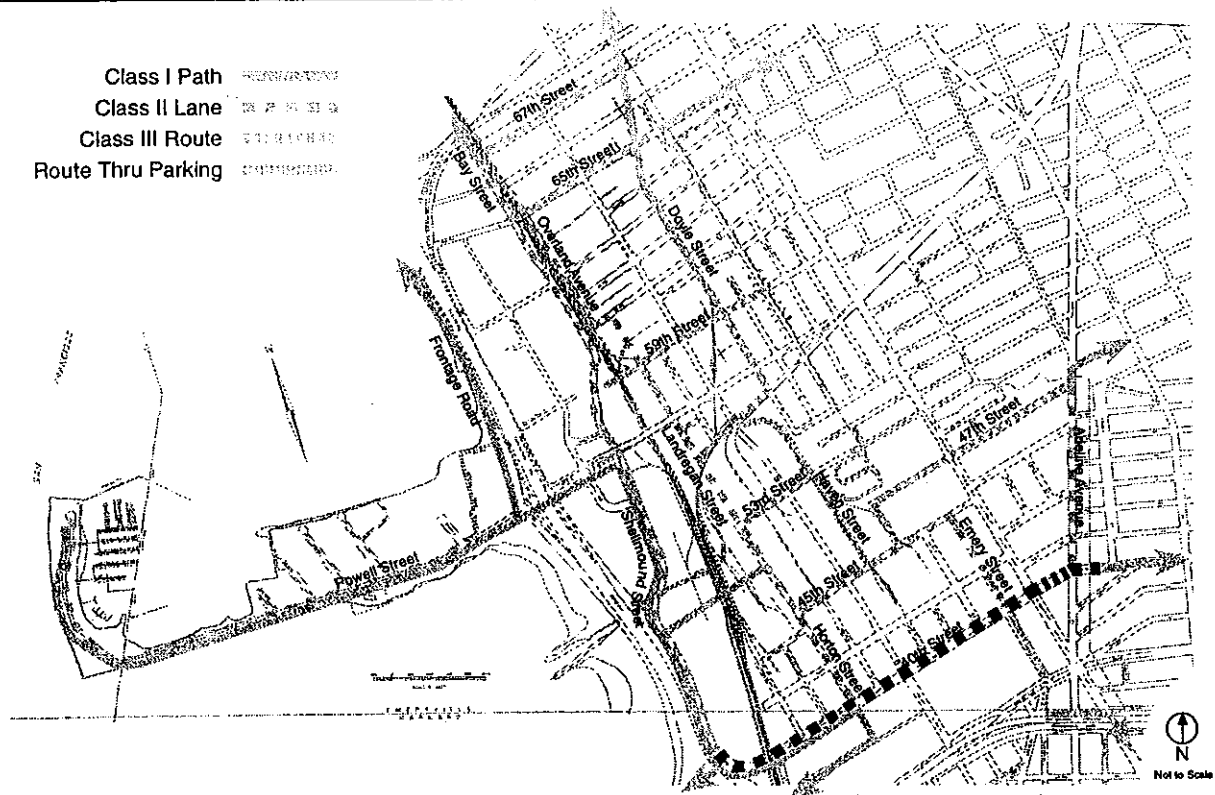
Class: Class II bike lanes from Shellmound to San Pablo
Class III signed route from San Pablo to Adeline
Class II bike lanes from Adeline to Oakland border

Links: Shellmound to Powell Street, points north, and Berkeley
Horton to 45th, 53rd, points north, and Berkeley
Hollis to Oakland
Emery to 45th
San Pablo to the Triangle neighborhood, Oakland and Berkeley
MacArthur BART station in Oakland

Status: Speeding vehicles on the 40th Street Bridge drive into the faded bike lanes.
Class II bike lanes exist on 40th from Shellmound to San Pablo.
Between San Pablo and Adeline, the roadway width limits 40th to a Class II signed route, but bus pads provide time-shared space for cyclists.
Between Adeline and Oakland, 40th is wide enough for Class II lanes.
Oakland's draft bicycle plan shows 40th Street as a Class III signed route, but they are considering Class II bike lanes.
Bicycle detectors are located in the 40th Street vehicle lanes, not in the bike lanes.

Continued on next page

<p>Figure E-W 9</p> <p>1107-45-02</p>	<p>40TH STREET</p>	<p>fp</p>
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East-West Bikeways

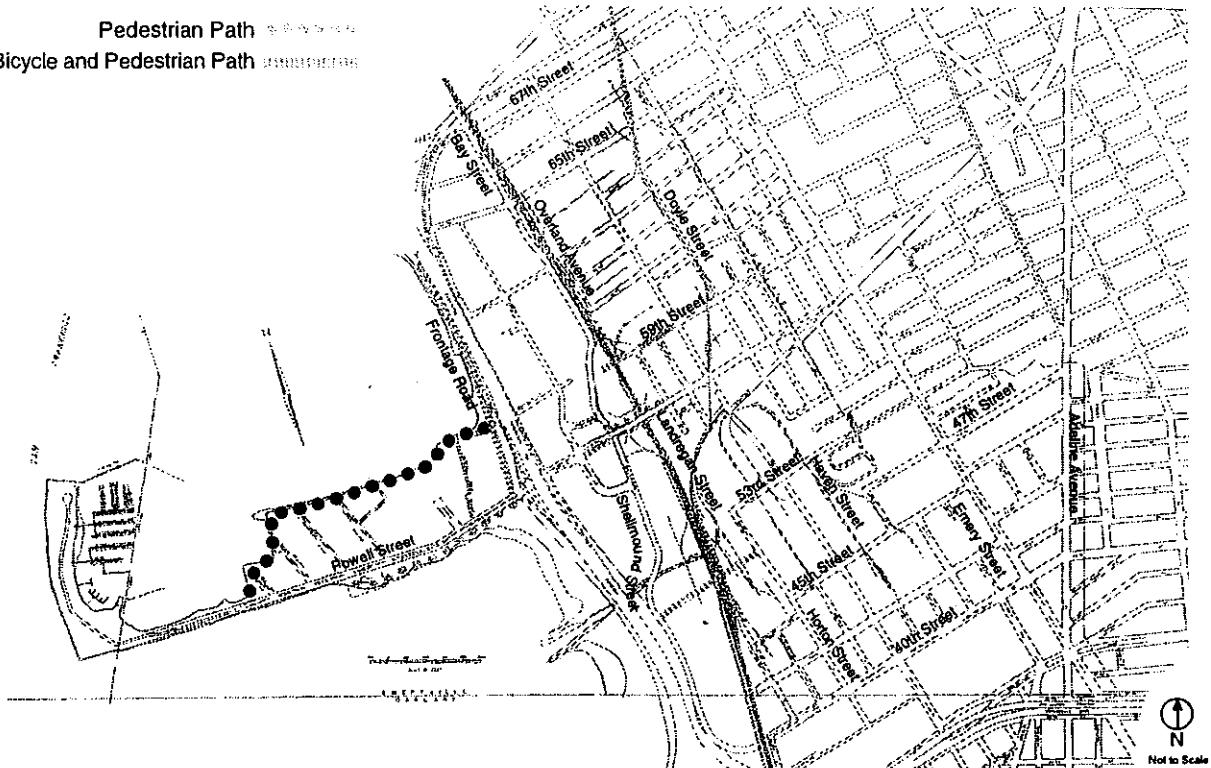
EW9. 40th Street (continued)

- Immediate Steps:** Place reflective striping or dots on the bike lane stripes on the bridge.
Place a "Caution - Bike Lane" sign at each end of the bridge.
Sign a Class III bike route on 40th between San Pablo and Adeline.
Stripe, stencil and sign Class II bike lanes on 40th between Adeline and the Oakland border.
Work with Oakland to extend Class II bike lanes on 40th to the MacArthur BART station.
- Short Term Steps:** Install bicycle detectors and stencils in bike lanes for existing signals on 40th at San Pablo, Adeline, Hollis, Emery and Horton.

Figure E-W 9	40TH STREET	fp
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1107-46-02

Pedestrian Path 
Bicycle and Pedestrian Path 



Pedestrian Ways

PW 1. Watergate Boardwalk

Location: North side of Watergate Condominiums

Class: Pedestrian path

Links: Bay Trail along Frontage Road to the Bay

Status: The Boardwalk currently provides pedestrian-only access to the bay.

Short-Term Steps: No improvements are needed.

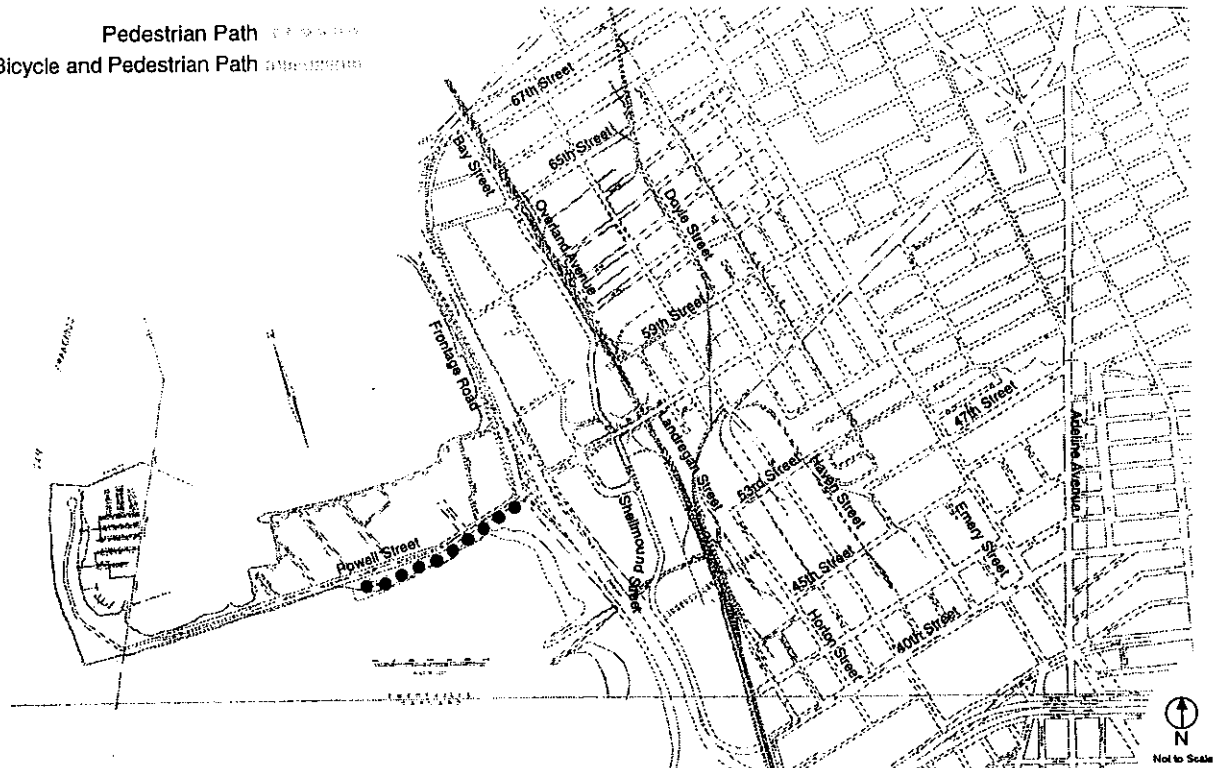
Figure PW 1

1107-61-01

WATERGATE BOARDWALK



Pedestrian Path 
Bicycle and Pedestrian Path 



Pedestrian Ways

PW 2. Powell Street Peninsula Park

Location: South of Powell Street, from Frontage Road to the Fire Station

Class: Pedestrian path

Links: Bay Trail north to Berkeley

Status: East Bay Regional Parks District has funding to plan a park on the south side of Powell but has not released it.

Short-Term Steps: Work with the East Bay Regional Parks District to include a pedestrian path, as well as a bike path, in the park south of Powell Street.

Figure PW 2

1107-62-01

POWELL STREET PENINSULA PARK



Table 1. Annual Summary of Rough Capital and Maintenance Cost Estimates
(In 1998 dollars)

<u>Approx. Year</u>	<u>Estimated Capital Cost</u>	<u>Estimated Additional Maintenance Cost</u>	<u>Estimated Total Cost</u>
1998	\$ 25,000	\$ 0	\$ 25,000
1999	150,000	34,200***	184,200
2000	500	30,000	30,500
2001	1,000	30,000	31,000
2002	87,000	31,900	118,900
2003	1,000	46,900	47,900
2004	500	42,500	43,000
2005	2,500,000*	38,200	2,538,200
2006	14,000	54,600	68,600
2007		56,600	56,600
2008	10,500	43,800	53,800
2009		67,800	67,800
2010	1,370,000**	44,600	1,414,600
2011		51,000	51,000
2012		52,100	52,100
2013		53,800	53,800
2014		59,900	59,900

* Bicycle-pedestrian overcrossing at South Bayfront

** Bike lane on 65th Street Bridge over Southern Pacific Railroad Main Track

*** Includes monitoring video cameras in elevators at 59th Street Overcrossing

Table 2. Rough Estimate of Capital Improvement Costs and Phasing
(In 1998 dollars)

<u>Approx. Year</u>	<u>Facility Location</u>	<u>Approx. Project/Recommended Class</u>	<u>Estimated Length, ft.</u>	<u>Cost</u>	<u>Coordinate With/Notes</u>	<u>Funded?</u>
1998	40th St Bridge	Speed limit, caution signs; reflective tape or dots	1,350	\$ 8,000		Yes
	Shellmound St at Temescal Creek curve	Caution signs		500		Yes
	59th St Overcrossing Elevators	Windows or video cameras		15,000		No
	Powell St from I-80 to Christie	Class I Bike Path	400	210,000		Yes
	Powell St from Christie to Shellmound	Route through parking lot	400	11,500		Yes
	Haven St from Stanford/Hollis to 45th	Route through parking lot	400	1,000		Yes
	Stanford Ave from Hollis to Landregan	Class II Bike Lanes	500* detector		Chiron	Yes
	53rd St from Horton to Hollis	Class III Bike Route	400		Chiron	Yes
	53rd St from Hollis to Haven	Class III Bike Route	500	500		Yes
1999	Shellmound St from Bay- Shellmound to 40th	Class II Bike Lanes	3,500 detector	15,000	S.Bayfront	Yes
	40th St from San Pablo to Adeline	Class III Bike Route	400	500		Yes
	40th St from Adeline to Oakland	Class II Bike Lanes	200	1,500		No
	47th St from Doyle to Adeline	Class III Bike Route	2,000 detector	2,500		Yes
	Doyle St from 47th to 45th	Class III Bike Route	900	500		Yes
	65th St from Bay St to Oakland	Class II Bike Lanes	1,900 detector	8,500		No

(Continued on next page)

<u>Approx. Year</u>	<u>Facility Location</u>	<u>Project/Recommended Class</u>	<u>Approx. Length, ft.</u>	<u>Estimated Cost</u>	<u>Coordinate With/Notes</u>	<u>Funded?</u>
1999 cont'd	Powell St from Watergate Towers to Marina	Class II Bike Lanes	3,400	20,000		No
	Doyle St from Ocean to 59th	Reconstruct track paving		100,000	UPRR	No
	Doyle St from 59th to Stanford	Class III Bike Route	900	1,000		Yes
	Landregan from Haruff to 53rd	Class II Bike Lanes	1,100		Chiron	Yes
	Landregan-Horton from 53rd to 40th	Class II Bike Lanes	2,300	7,000		Yes
	Stanford Av from Hollis to Doyle	Class III Bike Route	500		Chiron	Yes
	40th from Horton to Adeline	in existing bike lanes	detectors at 5 signals	9,000		No
2000	45th St from Horton to Emery	Class II Bike Lanes	1,900 detector		Pixar	Yes
	Emery St from 45th to Park	Class II Bike Lanes	600		Pixar	Yes
	Emery St from Park to 40th	Class III Bike Route	400	500		Yes
	Landregan from 59th to 62nd	Class II Bike Lanes	600		Wareham	Yes
2001	59th St from Hollis to Vallejo	Class III Bike Route	1,000 detector	1,000	move parking: to UPRR?	Yes
	59th St from Hollis to Peladeau	Class II Bike Lanes	200		Wareham	Yes
2002	Adeline St from Oakland near 53rd to 40th	Class II Bike Lanes	2,000	11,000		No
	9th St Drill Track from north of Ashby to Ocean Av	Class I Bike Path	2,300 R.O.W.	75,000 + R.O.W.	With Berkeley	No
2002 cont'd	Doyle St from Ocean Av to 59th	Class III Bike Route	1,600	1,000		No

(Continued on next page)

<u>Approx. Year</u>	<u>Facility Location</u>	<u>Project/Recommended Class</u>	<u>Approx. Length, ft.</u>	<u>Estimated Cost</u>	<u>Coordinate With/Notes</u>	<u>Funded?</u>
	Powell St from Frontage to Fire Station	Class I Bike Path	1,900		EBR Park District	No
2003	62nd from Landregan to Overland	Class III Bike Route	200	1,000		No
2004	Overland from 62nd to 64th	Class III Bike Route	600	500		No
	Overland from 64th to 66th	Class II Bike Lanes	800*		Redevelopment, Ryerson, Grove	No
2005	South Bayfront from Horton to Shellmound	Class I Bike Path and Overcrossing	1,200	2,500,000	South Bayfront and UPRR	No
2006	Overland from 66th to 67th	Class II Bike Lanes	300*	14,000	Redevelopment	No
2007	Doyle route from Ocean St to 59th	Remove tracks and repave	1,600		UPRR	No
2008	67th from Drill Track to Bay St	Class II Bike Lanes	1,800	10,500		No
2010	65th over UPRR Main Track, new bridge	Class II Bike Lanes	200*	1,370,000		No

* New or widened street

Table 3. Rough Estimate of New Bikeway Maintenance Costs By Year
(In 1998 Dollars)

<u>Year</u>	<u>Class I Path Maintenance (including sign replacement)</u>	<u>Class II Lane Re-Striping</u>	<u>Class II and III Sign Replacement</u>	<u>Total Cost</u>
1999	\$30,400	\$ 0	\$3,800	\$34,200
2000	30,400	0	0	30,000
2001	30,400	0	0	30,000
2002	30,400	0	1,500	31,900
2003	32,900	6,000	8,000	46,900
2004	35,000	0	7,500	42,500
2005	35,000	1,200	2,000	38,200
2006	35,000	15,600	4,000	54,600
2007	35,000	18,600	3,000	56,600
2008	35,000	7,800	1,000	43,800
2009	35,000	31,800	1,000	67,800
2010	35,000	9,600	0	44,600
2011	35,000	15,000	1,000	51,000
2012	35,000	15,600	1,500	52,100
2013	35,000	10,800	8,000	53,800
2014	35,000	17,400	7,500	59,900

NOTES:

Class I Bike Path maintenance includes \$30,000 for video camera monitoring for the 59th St. Bridge overcrossing elevators.

Class I Bike Path maintenance: Annual cost based on street maintenance cost - \$1.09/linear foot, to the nearest \$100.

Class II Bike Lane restriping: Tape replacement every 10 years at \$3/linear foot, times two lanes.

Class II Bike Lane and Class III Bike Route sign replacement: On average every 5 years at \$250 per sign.

Table 4. Past Bicycle Facility Projects
(Costs in 1997 dollars)

<u>Facility Location</u>	<u>Class</u>	<u>Approximate Length, Feet</u>	<u>Year</u>	<u>Cost</u>
Landregan St. from 59th to Haruff	Class II Bike Lanes	800	Existing	--
59th St. from Landregan to Peladeau	Class II Bike Lanes	100	Existing	--
Horton St. from 40th to Yerba Buena	Class II Bike Lanes	400	Existing	--
40th St. Bridge and from bridge to San Pablo Ave.	Class II Bike Lanes	3,800	Existing	--
Bay St. from Berkeley to Shellmound	Class II Bike Lanes	3,400	Completed in 1997	\$212,000
59th St. Over Main Track Southern Pacific Railroad	Overcrossing with elevators	50	Completed in 1997	\$2,500,000
Frontage Rd. from Berkeley to Powell St.	Class I Bike Path	3,700	Under Construction	\$222,000
Powell St. from Frontage to East of I-80	Class I Bike Path	400	Under Construction	Caltrans