A. Caltrans BTA Requirements

To be eligible for funding from the State's Bicycle Transportation Account (BTA), local agencies must have an adopted Bicycle Transportation Plan that was approved by the Regional Transportation Planning Agency and by Caltrans. The plan must comply with the requirements specified in the Streets and Highways Code Section 891.2. This appendix lists those eleven requirements and notes where they are addressed in this plan.

Requirement	Location
(a) The estimated number of existing bicycle commuters in the plan area and the estimated increase in the number of bicycle commuters resulting from implementation of the plan.	Section 2.3
(b) A map and description of existing and proposed land use and settlement patterns which shall include, but not be limited to, locations of residential neighborhoods, schools, shopping centers, public buildings, and major employment centers.	map insert, Section F.1
(c) A map and description of existing and proposed bikeways.	Chapter 4, Appendix F, Appendix H
(d) A map and description of existing and proposed end-of-trip bicycle parking facilities. These shall include, but not be limited to, parking at schools, shopping centers, public buildings, and major employment centers.	Section 5.2, Appendix H
(e) A map and description of existing and proposed bicycle transport and parking facilities for connections with and use of other transportation modes. These shall include, but not be limited to, parking facilities at transit stops, rail and transit terminals, ferry docks and landings, park and ride lots, and provisions for transporting bicyclists and bicycles on transit or rail vehicles or ferry vessels.	Section 2.4, Section 4.3, Section 5.2, Appendix H
(f) A map and description of existing and proposed facilities for changing and storing clothes and equipment. These shall include, but not be limited to, locker, restroom, and shower facilities near bicycle parking facilities.	Section 5.2, Appendix H
(g) A description of bicycle safety and education programs conducted in the area included within the plan, efforts by the law enforcement agency having primary traffic law enforcement responsibility in the area to enforce provisions of the Vehicle Code pertaining to bicycle operation, and the resulting effect on accidents involving bicyclists.	Section 2.6, Section 6.2
(h) A description of the extent of citizen and community involvement in development of the plan, including, but not limited to, letters of support.	Section 2.7, Section 6.6, Section C.1
(i) A description of how the bicycle transportation plan has been coordinated and is consistent with other local or regional transportation, air quality, or energy conservation plans, including, but not limited to, programs that provide incentives for bicycle commuting.	Section C.2, Section C.3, Section C.4
(j) A description of the projects proposed in the plan and a listing of their priorities for implementation.	Section 6.1, Appendix F, Appendix H
(k) A description of past expenditures for bicycle facilities and future financial needs for projects that improve safety and convenience for bicycle commuters in the plan area.	Section 4.4, Section 6.5

B. Building on the 1999 Bicycle Master Plan

This document is the first update to Oakland's *Bicycle Master Plan*, originally adopted in 1999. The update is comprehensive in that it addressed all sections of the previous plan, providing greater detail and incremental improvements throughout. This appendix explains progress to date on the objectives of the 1999 Plan and the major policy-level changes made in the 2007 Plan.

B.1 Progress on the 1999 Plan Objectives

The 1999 *Bicycle Master Plan* specified four objectives in measuring progress on the Plan's implementation. The 2007 *Bicycle Master Plan* replaces these objectives with the following objective: "Publicly strive to become a Bicycle Friendly Community by 2012, as recognized by the League of American Bicyclists." This new objective will provide a more comprehensive measure by considering the City's efforts with engineering, education, encouragement, evaluation & planning, and enforcement. The City's application will be evaluated by external reviewers who will also provide constructive feedback on areas in need of improvement. The new objective will thus provide a more comprehensive, independent, and constructive evaluation than the 1999 objectives. Progress to date on the 1999 objectives is explained below to mark the transition from the 1999 Plan to the 2007 Plan.

Objective 1: Expand the bikeway network to connect all six of the City's service delivery districts within five years. As of the 2007 Plan update, there remain significant gaps in the completed bikeway network. Notable progress in building cross-city connections include the Bancroft Bikeway (Melrose to San Leandro), the Bay Trail (on-street component between Emeryville and Fruitvale), Grand Ave Bikeway (West Oakland to Grand Lake), Webster/Shafter Bikeway (Broadway Auto Row to Rockridge), Market St Bikeway (Jack London Square to Berkeley), and the bicycle routes in the Oakland Hills. To facilitate bikeway development, the 2007 Plan includes a citywide feasibility analysis of the proposed bikeway network that evaluated projects to maximize their benefits to bicyclist safety and access while minimizing potentially adverse effects. This level of detail and the associated modifications to the proposed network will help promote the timely delivery of priority projects. A map of existing bikeways is included as Figure H.4.

Objective 2: Increase the percentage of Oakland residents commuting to work by bicycle to 4% by 2010. Mode share for bicycle commuting to work is provided by the US Census Journey to Work data. In 1990 1.1% of Oaklanders bicycled to work whereas in 2000

1.2% bicycled to work. These figures provide limited insight because there was not a significant change in Oakland's bicycle facilities or programs during the 1990s. It was in the late 1990s that the City of Oakland began a sustained effort to provide bikeways and bicycle parking. Based on the improvements completed to date, the changes in facilities and programs between 2000 and 2010 will be much more significant. The 2010 Census data will be especially interesting for seeing if there is a local correlation between the provision of bicycle facilities and bicycling rates. Based on the limited models for bicycle forecasting, Oakland could achieve a bicycle mode share of 5% to 10% of all trips with the implementation of the *Bicycle Master Plan.* See Section 2.3 for a discussion of bicycle mode share.

Objective 3: Reduce the number of bicycle-related accidents by 10% within five years. Between 1995 and 1999, there was an average of 221 bicycle-related collisions per year. In 2003 and 2004, there was an average of 185 bicycle-related collisions per year. This change represents a 16% reduction in the number of collisions within the five years following the 1999 Plan. This change is especially significant given the increase in bicycling rates over this time period. While causal explanations cannot be established, this positive change coincides with improved bicycle facilities, more people bicycling, and an increased public awareness of bicycle-related issues. See Sections 2.3 and 2.5 for additional information on bicycling rates and collision rates, respectively.

Objective 4: Double the number of bicycling parking spaces within five years. As of the adoption of the 1999 *Bicycle Master Plan*, approximately 500 publicly accessible bicycle parking spaces were available in Oakland. Since 1999, the City of Oakland has installed 900 racks through the CityRacks bicycle parking program. These racks—accommodating over 2,000 bicycles—are located on sidewalks as well as at parks, libraries, and other public facilities. The Fruitvale Bike Station opened in 2004 and provides an additional 236 secure parking spaces. In 2006 and 2007, the City of Oakland installed 16 electronic bicycle lockers at street level near the 12th St and 19th St BART Stations. BART has installed over 600 additional bicycle parking spaces at the six other BART stations in Oakland. In total, Oakland has over 3,350 publicly accessible bicycle parking spaces located throughout the city.

B.2 Policy Changes in the 2007 Plan

Routine Accommodation: In light of policies at the regional, state, and federal levels, this plan is based on a policy position that Oakland will consider bicycle safety and access in the design and maintenance of all streets. This policy differs from the 1999 Plan in that the scope of potential bicycle improvements is not as focused on the proposed bikeway

network. At the same time, this plan retains the bikeway network as a foundational concept for prioritizing and improving streets as bikeways that will have the greatest community benefit.

Safe Routes to Transit: While the 1999 Plan emphasized connections to transit, this update integrates "Safe Routes to Transit" as a key policy in identifying and prioritizing capital improvements. For each major transit station, the proposed bikeway network includes a bikeway connecting from each direction surrounding the station. These streets are explicitly named and prioritized because of their potential to increase transit ridership while connecting cyclists to destinations throughout the region. These recommendations reflect the growing emphasis on station area access plans and transit-oriented development.

Citywide Feasibility Analysis: The greatest effort in this plan update was invested in the detailed evaluation of all streets on the bikeway network. The 1999 recommended bikeway network was a more general planning tool, identifying bikeway corridors throughout the city, without specifically considering the feasibility of those proposals. In contrast, the updated bikeway network is based on an evaluation of street grades, curb-to-curb rights-of-way, peak hour traffic volumes, and bicycle/bus interactions. The purpose of this analysis was to develop feasible proposals that maximize bicyclist safety and access while minimizing associated impacts on motor vehicle congestion, parking, and bus operations. This analysis is the basis for further study in the development of bikeway projects as described in Appendix G, "Requirements for Bikeway Feasibility Studies."

Additional Bikeway Types: Since the completion of 1999 Plan, the State of California adopted the shared roadway bicycle marking (sharrow). This traffic control device is a tool for improving existing bicycle routes and provides a potential alternative in cases where bicycle lanes are not feasible. The sharrow is one aspect of two new bikeway types that are explained in Chapter 4 and integrated into the proposals for Oakland's bikeway network: arterial bicycle routes (Class 3A) and bicycle boulevards (Class 3B).

C. Local and Regional Coordination

The development of Oakland's *Bicycle Master Plan* benefited from significant public outreach and coordination with other agencies. In particular, this effort included neighborhood groups and merchants associations, local transit operators, and adjoining jurisdictions, as well as countywide and regional agencies. The following sections summarize the community outreach, explain the coordination with other agencies, and list other planning documents that intersect with the *Bicycle Master Plan*.

C.1 Community Outreach

This following list itemizes the outreach strategies that were used for this update to Oakland's *Bicycle Master Plan*. In general, the process emphasized continuous oversight by a Citizens Advisory Committee and proactive outreach to neighborhood groups, merchants associations, and other community-based organizations.

- *Citizens Advisory Committee (CAC)*: This committee was composed of representatives from each council district, representatives of community-based organizations, and interested individuals. It met monthly from April 2005 to November 2007, providing public input and oversight for each stage of the process. Overall, 20 people participated in the CAC.

- *Meetings with Community-based Organizations*: The project manager and members of the CAC gave presentations to neighborhood groups and merchants associations as part of those groups' regularly scheduled meetings. The purpose of the meetings was to build neighborhood-level understanding of Oakland's *Bicycle Master Plan* by taking the project directly to the neighborhoods. Fifty-two presentations were made to these groups, reaching over 850 people.

- *Public meetings*: Three large format, open-invitation public meetings were held over the course of the project. The first two meetings were held at the beginning of the project and presented the same agenda in two locations (Lake Merritt Garden Center and Arroyo Viejo Recreation Center). The third meeting was held at the Lake Merritt Garden Center after the public release of the Draft Plan.

- *Technical Advisory Committee (TAC)*: This committee facilitated cooperation with outside agencies with a primary focus on AC Transit and the adjoining jurisdictions

of Alameda, Berkeley, Emeryville, Piedmont, and San Leandro. Approximately 30 agency representatives were involved with the TAC. Because of the large number of participants, meetings were held with individual agencies on an issue specific basis.

- *EIR and General Plan Amendment*: The preparation of the Environmental Impact Report (EIR) and the adoption of a General Plan amendment required the following public meetings and review periods: public scoping meeting for the Notice of Preparation (Planning Commission) and comment period (30 days); public hearing for the Draft EIR and General Plan amendment (Planning Commission) and review period (45 days); and Final EIR public hearing (Planning Commission). Adoption of the Plan also required action by the Planning Commission, Community and Economic Development Committee, and City Council.

- *Opinion Survey*: In 2003, the Public Works Agency distributed 1,000 copies of a bicycling access survey and received 174 responses. The survey was distributed through Bike to Work Day, bicycle shops, libraries, and the web pages of the Public Works Agency and the East Bay Bicycle Coalition. The survey collected information on trip purpose, trip length, cycling constraints and basic demographic information about the respondents.

- *Project Postcard*: A project postcard was created to provide a basic overview of the *Bicycle Master Plan* update and encourage people to participate in the process. Over 4,000 postcards were distributed through the CAC, neighborhood meetings, and Bike to Work Day.

- *Project Contact List*: This list was developed to provide ongoing contact with people interested in the development and implementation of the *Bicycle Master Plan*. Names and contact information were gathered from the opinion survey, community meetings, and the project web site. Project updates were sent to the people on this list to notify them of major developments. At the time of project completion, the list included 600 people. This list will be maintained as an ongoing resource to involve members of the public with the implementation of the plan.

- *Web Page*: A web page was used to post the current status of the project, make key documents available, and encourage people to join the project contact list. This page also satisfied the public posting requirements of the grant provided by the Alameda County Transportation Improvement Authority. The page, located at `www.oaklandpw.com/bicycling/bikeplan.htm`, will be maintained as an ongoing reference for Oakland's *Bicycle Master Plan*. The page is also available via `www.oaklandbikes.info`.

- *Mailings*: Direct mailings notified individuals and groups of the public meetings and the public review periods associated with the EIR and General Plan amendment. These mailings included all of Oakland's bicycle shops and the approximately 120 neighborhood groups on the list maintained by the Community and Economic Development Agency.

C.2 Local Planning

The Oakland *General Plan* contains the following elements that have bicycle-related policies. These policies and associated actions are collected in Appendix D.

- *Estuary Policy Plan* (1999) includes continuous bikeways along the waterfront (Jack London Square to Damon Slough), Lake Merritt Channel, and in the Jack London District.
- *Land Use and Transportation Element* (1998) calls for the adoption of a *Bicycle Master Plan*, the inclusion of bikeways in new projects, the conversion of underused travel lanes into bikeways, the reuse of abandoned rail lines as mixed use paths, and the general promotion of walking, cycling, and transit-riding.
- *Pedestrian Master Plan* (2002) specifies Safe Routes to Transit as a policy directive and incorporates lane conversion projects (as per the *Bicycle Master Plan*) as pedestrian safety improvements.
- *Open Space, Conservation, and Recreation Element* (1996) describes the creation of linear parks that include mixed-use paths and calls for the creation of a Bicycle Trail Plan as part of the Land Use and Transportation Element.

The following plans have bicycle-related proposals for specific areas of Oakland. The list includes some streetscape projects that do not explicitly address bicycle access to note potential conflicts with the bikeway network. All plans were completed by the City of Oakland except for those where another agency or organization is specified.

- *23rd Ave Community Action Plan* (Urban Ecology, 2005) calls for the re-striping of Foothill Blvd (14th Ave to 23rd Ave) to include bicycle lanes and improve pedestrian safety (p. 53).
- *Acorn-Prescott Neighborhood Transportation Plan* (1999) identifies the need for more bikeways connecting to regional routes, Mandela Parkway, and Jack London Square (pp. 2-12, 3-11).

- *Clinton Park Plan* (Urban Ecology, 1999) identifies improvements in the Eastlake neighborhood including bicycle lanes on E 12th St and E 14th St (now International Blvd) and bicycle parking as well as wayfinding signage in the park (pp. 17, 27-28).

- *Coliseum BART to Bay Trail Connector* (Alameda County Public Works Agency, 2003) evaluates alternatives for creating a mixed-use path from Coliseum BART along the Damon Slough and the 66th Ave overcrossing to the Bay Trail at Martin Luther King, Jr Regional Shoreline Park.

- *Downtown Oakland Streetscape Master Plan* (2003) proposes improvements to the following streets with existing or proposed bikeways: Washington St (Embarcadero to 10th St), Telegraph Ave (Broadway to 40th St), Webster St (Embarcadero to 12th St), Oak St (Embarcadero to 14th St), Lakeside Dr (14th St to 20th St), 9th St (Martin Luther King, Jr Wy to Alice St), 14th St (I-980 to Lake Merritt), and 20th St (San Pablo Ave to Harrison St).

- *Downtown Transportation and Parking Plan* (Draft 2003, not adopted) reiterates the proposed bikeways in the 1999 *Bicycle Master Plan* (pp. 21-23).

- *East Oakland Community-Based Transportation Plan* (Alameda County Congestion Management Agency, under development) was in process at the time of this writing. Key priorities from the *Bicycle Master Plan* include bicycle access to Fruitvale BART and Coliseum BART as well as an east-west bikeway between I-580 and the Oakland Estuary that would connect the neighborhoods on either side of High St.

- *Fruitvale Alive! Community Transportation Plan* (2005) recommends an arterial bicycle route on Fruitvale Ave (MacArthur Blvd to International Blvd). The plan recommends against this treatment on Coolidge Ave (MacArthur Blvd to Foothill Blvd) due to narrow travel lanes (pp. 59–61).

- *Gateway to the East Bay: Final Reuse Plan for the Oakland Army Base* (2002) includes the Port of Oakland Development area (Port expansion) and the mixed commercial Gateway Development Area (Redevelopment Agency). This development will likely shape how the Bay Bridge Eastern Span Path connects to the local bikeway networks in Oakland and Emeryville.

- *Hegenberger Rd/98th Ave Gateway Development Plan* (1998) does not address bicycle access.

- *International Blvd Main Street Project* (2001) does not address bicycle access.

- *International Boulevard Urban Design Plan* (2001) does not address bicycle access within its four target areas on International Blvd (40th to 44th Ave, 72nd to 75th Ave, 80th to 89th Ave, 105th to Durant Ave).

- *Lake Merritt Channel Estuary Park Bike and Pedestrian Trail: Final Design Development Report* (2000) describes mixed-use paths along (1) both sides of the Lake Merritt Channel (under I-880); and (2) along the abandoned Union Pacific rail corridor between Victory Ct (near Fallon St) and 5th Ave.

- *Lake Merritt Park Master Plan* (2002) includes continuous on- and off-street bikeways around Lake Merritt (p. III-11).

- *MacArthur BART Station West Side Pedestrian Enhancement Project* (2004) includes bicycle lanes on 40th St (Martin Luther King Jr Wy to Telegraph Ave) (p. 45).

- *MacArthur Blvd Conceptual Streetscape Improvement Plan* (2001) does not address bicycle access within its project area on MacArthur Blvd (73rd Ave to Durant St).

- *Mandela Parkway Corridor Plan* (1997) proposes bicycle lanes and a mixed-use median path as part of the Bay Trail (p. iv).

- *Middle Harbor Shoreline Park Public Access Feasibility Study* (Port of Oakland, 2001) evaluates three bicycle access alternatives for connecting the park via Middle Harbor Rd to the greater Oakland area: (1) Embarcadero; (2) Adeline St; and (3) 7th St (pp. 3-1 to 3-16).

- *Oakland Waterfront Trail: Bay Trail Feasibility & Design Guidelines* (2003) identifies 37 segments of mixed-use path along the waterfront between Jack London Square and 66th Ave. Key connections to the neighborhoods (and across I-880) include Washington St, Webster St, Madison St, Oak St, 5th Ave, 16th Ave, 23rd Ave, Fruitvale Ave, High St, and 66th Ave.

- *Park St Triangle Traffic Study* (2005) addresses overall traffic circulation, including bicycle access, in the area bounded 23rd Ave, 29th Ave, Ford St, Park St Bridge, and the proposed Waterfront Trail.

- *Revive Chinatown Community Transportation Plan* (2004) includes a bikeway on 9th St in conjunction with the conversion of this street from one-way to two-way traffic flow. Because of double parking in the Chinatown core, it recommends an arterial bicycle route from Broadway to Harrison St with bicycle lane connections on either side (p. 70).

- *Shepherd Canyon Area Traffic and Pedestrian Safety Assessment* (Shepherd Canyon Homeowner's Association, 2004) addresses bicycle-related issues at the intersection of Skyline Blvd, Snake Rd, Manzanita Dr, and Colton Blvd (pp. 11-16) and along the Shepherd Canyon Path (pp. 23-25).

- *Telegraph Avenue Pedestrian Streetscape Improvement Project* (2005) notes that Telegraph Ave (20th St to 55th St) is a proposed bikeway in the city, county, and regional bicycle plans but does not address bicycle access as part of its scope (p. 1).

- *Telegraph-Northgate Neighborhood Plan* (2000) addresses Telegraph Ave (21st to 27th St) and reiterates the 1999 *Bicycle Master Plan's* proposal for bicycle lanes on Telegraph Ave (p. 52).

- *West Oakland Community-Based Transportation Plan* (Alameda County Congestion Management Agency, 2006) includes the following priority bikeway projects: (1) Market St bicycle lanes (MacArthur Blvd to 3rd St); (2) W Grand Ave bicycle lanes (Mandela Pkwy to Market St), and (3) 14th St bicycle lanes (Mandela Pkwy to Martin Luther King Jr Wy).

C.3 Adjacent Jurisdictions

Oakland shares borders with the cities of Alameda, Berkeley, Emeryville, Piedmont, and San Leandro. It also adjoins land under the jurisdiction of the Port of Oakland and the East Bay Regional Park District. This Plan's proposals were coordinated with these agencies to help ensure direct and intuitive bikeways across these borders. In particular, the following areas received detailed consideration:

- *Bay Bridge Eastern Span Bicycle and Pedestrian Path*: facilitating the connections between this future path and the local bikeway networks in Oakland and Emeryville.

- *Berkeley and Emeryville*: ensuring that the bikeway connections at city borders are direct and intuitive from the bicyclist's perspective.

- *Piedmont*: developing recommended bikeways through Piedmont to ensure the connectivity of Oakland's adjoining bikeways. The bikeways in Piedmont on the map of Oakland's bikeway network were vetted with City of Piedmont staff.

- *Port of Oakland*: facilitating the implementation of the San Francisco Bay Trail and ensuring bicycle access to the Oakland International Airport.

- *San Pablo Avenue corridor*: promoting a direct connection between downtown Oakland, Emeryville and West Berkeley.

The results of these collaborations are included on the map of Oakland's bikeway network. Note that this map also includes the existing and proposed facilities in adjoining jurisdictions. The most recently adopted plans for the adjoining jurisdictions are:

- *Alameda*: *Bicycle Master Plan* (1999, readopted 2002)
- *Berkeley*: *Bicycle Plan* (2000), *Bicycle Plan Update: An Addendum to the 2000 Berkeley Bicycle Plan* (2005)
- *Emeryville*: *Bicycle and Pedestrian Plan, 1998-2010* (1998)
- *Piedmont* does not have a bicycle plan but has expressed interest in developing one based on the recommended bikeways developed in discussions between Piedmont and Oakland staff as part of this planning process.
- *San Leandro*: *Bicycle and Pedestrian Master Plan* (2004)

C.4 County and Regional Planning

The following county- and regional-level plans, studies, and reports contain proposals that intersect with Oakland's bikeway network. They are itemized here to facilitate ongoing discussion regarding their implementation.

Alameda-Contra Costa Transit District (AC Transit)

Berkeley/Oakland/San Leandro Major Investment Study (2001) examines multiple alignments and transit technologies to identify opportunities for a major investment in East Bay transit service. The study's preferred alternative is bus rapid transit (BRT) in the Telegraph Ave/International Blvd corridor.

Designing with Transit: Making Transit Integral to East Bay Communities (2004) provides policies and best practices for land use and street design to strengthen transit service.

Short Range Transit Plan, 2003-2012 (2003) is the guiding document for how AC Transit will provide service over the next ten years. The plan is updated every three years. The 2003 document emphasizes preservation of the existing system (in response to fiscal constraints) and strategic investment on the most heavily used lines.

Strategic Vision: A World Class Transit System for the East Bay, 2001-2010 (2002) identifies the policy direction for AC Transit's long term investments: service and capital improvements on the major trunk lines to develop Enhanced Bus routes and Bus Rapid Transit on the corridors with the greatest potential ridership.

Alameda County Congestion Management Agency

Alameda Countywide Bicycle Plan (2006) identifies and prioritizes bikeways of countywide significance that link local jurisdictions and major destinations. See Figure H.7 for the countywide and regional bikeways in Oakland.

San Pablo Ave Corridor Study (1997) addresses inter-jurisdictional coordination on transportation improvements between Albany, Berkeley, Emeryville, Oakland, and AC Transit with a major focus on rapid bus service. Proposed bicycle projects include parking, support facilities, improved transit connections, and a corridor bikeway project that would parallel San Pablo Ave.

Transit Operations and Traffic Engineering Analysis for the Grand-MacArthur BRT Project in Oakland (2006) provides corridor-wide and segment-specific improvements to the AC Transit NL line, primarily on Grand Ave (Maritime St to MacArthur Blvd), MacArthur Blvd (Grand Ave to 73rd Ave), and 20th St (San Pablo Ave to Harrison St).

Association of Bay Area Governments (ABAG)

Bay Trail: Planning for a Recreational Ring Around San Francisco Bay (1989) proposes the development of a 500-mile mixed-use path circling the bay.

San Francisco Bay Trail Project Gap Analysis Study (2005) develops costs, strategies, and an overall time frame for completing the Bay Trail. When complete, the trail will link the waterfronts of 47 cities and all nine Bay Area counties. At the time of the study, half of the length of the 500-mile Bay Trail was complete.

Bay Area Rapid Transit District (BART)

Bicycle Access and Parking Plan, Volume 1 (2002) identifies strategies for increasing BART's bicycle mode share. It addresses the system-wide issues of promoting bicycling to BART and accommodating bicyclists at stations.

Bicycle Access and Parking Plan, Volume 2 (2003) describes the existing conditions and needs and makes recommendations to improve bicycle access and parking at individual

stations. Plans for Oakland stations are completed for Coliseum/Oakland Airport (March 2003) and West Oakland (March 2003).

Station Access Plans (various dates) identify station-area improvements to reduce the drive alone mode share to BART stations by promoting other modes. Plans for Oakland stations are completed for Coliseum (2002), Fruitvale (2002), Lake Merritt (2006), and West Oakland (2002).

Transit-Oriented Development Policy was adopted 14-Jul-05 by the BART Board of Directors. Goal D specifies, "Reduce the access mode share of the automobile by enhancing multi-modal access to and from BART stations in partnership with communities and access providers." Land Use Strategy D includes, "Encourage direct connections to stations from surrounding development in order to promote pedestrian and non-motorized access."

East Bay Regional Park District

East Bay Regional Park District Master Plan (1997) includes the following two "Potential Regional Trails": 1E San Francisco Bay Trail (Martin Luther King Jr Regional Shoreline to Eastshore State Park); and 14 Redwood Regional Park to Lake Merritt (via Shepherd Canyon, Dimond Canyon, and Trestle Glen).

Metropolitan Transportation Commission (MTC)

Regional Bicycle Plan (2001) recommends a 1,894-mile bikeway network throughout the nine county Bay Area with 418 miles in Alameda County. The regional network in the East Bay is a subset of the bikeways identified in the Alameda Countywide Bicycle Plan. See Figure H.7 for the countywide and regional bikeways in Oakland.

Transportation 2030 Plan for the San Francisco Bay Area (2005) is the region's 25-year plan for transportation funding and improvements. The Calls to Action relating to bicyclists include developing a policy on routine accommodation, improving data collection, supporting Safe Routes to Schools programs, and encouraging more funding through countywide sales taxes and the Transportation for Livable Communities program (pp. 56-58).

San Francisco Bay Conservation and Development Commission

San Francisco Bay Plan (1969) is the guiding document for the Bay Conservation and Development Commission's (BCDC) regulation of shoreline development. It contains policies and land use maps that are amended through an ongoing review process as specified by the

McAteer-Petris Act (1965), the state legislation that established the Commission and called for the creation of this plan.

Shoreline Spaces: Public Access Design Guidelines for the San Francisco Bay (2005) is a design resource for providing maximum feasible public access to the Bay as part of new development within 100 feet of the shoreline.

D. Oakland General Plan Policies

This appendix collects all of the objectives, policies, and actions from Oakland's *General Plan* that are related to bicycles. These references are from the following three documents: *Land Use and Transportation Element* (1998), *Open Space, Conservation, and Recreation Element* (1996), and *Estuary Policy Plan* (1999).

D.1 Land Use and Transportation Element (1998)

Objective T3 – Transportation Networks: Provide a hierarchical network of roads that reflects desired land use patterns and strives for acceptable levels of service at intersections (p. 56).

Policy T3.4 – Emerging New Technologies: The City should encourage the use of new technologies in traffic control devices to maximize efficiency of car, bicycle, and pedestrian traffic (p. 57).

Policy T3.5 – Including Bikeways and Pedestrian Walks: The City should include bikeways and pedestrian walks in the planning of new, reconstructed, or realized streets, wherever possible (p. 57).

Objective T4 – Alternative Modes of Transportation: Increase use of alternative modes of transportation (p. 58).

Policy T4.1 – Incorporating Design Features for Alternative Travel: The City will require new development, rebuilding, or retrofit to incorporate design features in their projects that encourage use of alternative modes of transportation such as transit, bicycling, and walking (p. 58).

Policy T4.2 – Creating Transportation Incentives: Through cooperation with other agencies, the City should create incentives to encourage travelers to use alternative transportation options (p. 58).

Policy T4.5 – Preparing a Bicycle and Pedestrian Master Plan: The City should prepare, adopt, and implement a Bicycle and Pedestrian Master Plan as a part of the Transportation Element of this General Plan (p. 58).

Policy T4.7 – Reusing Abandoned Rail Lines: Where rail lines (including siding and spurs) are to be abandoned, first consideration should be given to acquiring the line for transportation and recreational uses, such as bikeways, footpaths, or public transit (p. 59).

Policy T4.8 – Accommodating Multiple Types of Travel on the Bay Bridge: The City should encourage the design and engineering for the new Bay Bridge to accommodate multiple means of access and travel by automobiles, transit, bicycles, pedestrians, and future mass transit (p. 59).

Policy T4.10 – Converting Underused Travel Lanes: Take advantage of existing transportation infrastructure and capacity that is underutilized. For example, where possible and desirable, convert underused travel lanes to bicycle or pedestrian paths or amenities (p. 59).

Policy T6.3 – Making the Waterfront Accessible: The waterfront should be made accessible to pedestrians and bicyclists throughout Oakland (p. 60).

Objective T7 – Air Quality: Reduce air pollutants caused by vehicles (p. 61).

Policy W2.1 – Linking Neighborhoods with the Waterfront: All recreational activity sites along the waterfront should be connected to each other to create continuous waterfront access. Safe and direct automobile, bicycle, pedestrian, and waterway access between the waterfront and adjacent neighborhoods should be created and strengthened (p. 78).

Policy W2.5 – Improved Railroad Crossings: To create safe access to the water pedestrian, bicycle, and automobile railroad crossings should be provided where feasible. Crossings could include grade separations, at-grade crossings, skyway bridges, or connections between buildings (p. 79).

Policy W10.6 – Specifying Public Access and Linkages: Public Access along the estuary should be facilitated by commercial and active residential uses. It is important to have physical access to and between uses and activities along the waterfront, particularly along the shoreline. Opportunities for landscaped and signed linkages along Broadway, Webster, Harrison, and Oak streets, as well as the Lake Merritt Channel, should be developed for (land and water) auto, bicycle, pedestrian, and public transportation (p. 96).

Policy N7.4 – Designing Local Streets: Local streets should be designed to create an intimate neighborhood environment and not support high speed nor large volumes of traffic. Providing on-site parking for cars and bicycles, planting and maintaining street trees, and landscaping, minimizing the width of driveway curb cuts, maintaining streets, bike routes, and sidewalks, and orienting residential buildings toward the street all contribute to the desired environment (p. 110).

D.2 Open Space, Conservation, and Recreation Element (1996)

Objective OS-5 – Linear Parks and Trails: To develop a system of linear parks and trails which (a) links existing parks together; (b) provides safe, convenient access to open space

from residential areas and employment centers; (c) provides places to hike, bike, and experience Oakland's scenery; and (d) provides a means of moving from one place to another without an automobile (p. 2-33).

Policy OS-5.2 – Joint Use of Rights-of-Way: Promote the development of linear parks or trails within utility or transportation corridors, including transmission line rights-of-way, abandoned railroad rights-of-way, and areas under the elevated BART tracks (p. 2-37).

Policy OS-5.3 – Trail Design Principles: Plan and design all new trails in a manner which: (a) minimizes environmental impacts; (b) fully considers neighborhood privacy and security issues; (c) involves the local community in alignment and design; and (d) considers the needs of multiple users, including pedestrians, bicycles, and wheelchairs (p. 2-39).

Action OS-5.3.2 – Preparation of Bicycle Trail Plan: Develop a Bicycle Trail Plan as part of the Land Use and Transportation Element Update (p. 2-40).

Policy OS-7.5 – Lateral Access and Links to the Flatlands: Improve lateral access along the Oakland shoreline and linkages between the shoreline and nearby neighborhoods by creating a Bay Trail along the length of the Oakland waterfront. Where an alignment immediately along the waterfront is not possible, site the trail as close to the water as possible, with spur trails leading to the water's edge. In the transitional areas between Jack London Square and High Street, interim alignments may be designated along local streets but the ultimate goal should be an unbroken trail along the water's edge between Jack London Square and Martin Luther King, Jr. Regional Shoreline (p. 2-53).

Action OS-7.5.4 – Improvements to 16th and 66th Avenue Overcrossings: Work with Caltrans to program pedestrian/bicycle lanes on the 16th and 66th Avenue overcrossings of Interstate 880 (p. 2-55).

Policy CO-12.1 – Land Use Patterns which Promote Air Quality: Promote land use patterns and densities which help improve regional air quality conditions by: (a) minimizing dependence on single passenger autos; (b) promoting projects which minimize quick auto starts and stops, such as live-work development, mixed use development, and office development with ground floor retail space; (c) separating land uses which are sensitive to pollution from the sources of air pollution; and (d) supporting telecommuting, flexible work hours, and behavioral changes which reduce the percentage of people in Oakland who must drive to work on a daily basis (p. 3-52).

Policy CO-12.2 – Coordinated Transportation Systems: Maintain a coordinated bus, rail, and ferry transit system which provides efficient service to major destinations and promotes alternatives to the single passenger auto (p. 3-53).

Action CO-12.2.3 – Improved Bicycle and Pedestrian Systems: Develop a viable bicycle and pedestrian circulation system, with routes providing safe, convenient access between residential neighborhoods and employment centers (p. 3-54).

D.3 Estuary Policy Plan (1999)

Objective C-2: Establish a continuous waterfront parkway; a safe promenade for pedestrians, bicycles, and slow-moving automobiles (p. 48).

Objective C-6: Improve pedestrian and bicycle circulation (p. 49).

Policy JL-15: Enhance bicycle circulation through the Jack London District (p. 80).

Action JL-15.1: Provide bike lanes on Second and Third Streets.

Action JL-15.2: Establish bike lanes on Washington Street.

Action JL-15.3: Provide bike storage areas in appropriate locations.

Policy OAK-1.2: Provide for continuous pedestrian and bicycle movement along the water's edge (p. 87).

Policy OAK-3: Link the Estuary to Lake Merritt by enhancing the Lake Merritt Channel (p. 92).

Policy OAK-9: Improve the Embarcadero east of Oak Street as a multimodal landscaped parkway with bicycle, pedestrian and vehicular facilities (p. 97).

Policy SAF-9: Provide a continuous Embarcadero Parkway from Ninth Avenue to Damon Slough (p. 116).

Action SAF-9.1: In conjunction with the extension and enhancement of Embarcadero Parkway, provide a continuous bikeway from Ninth Avenue to Damon Slough.

E. Oakland Municipal Code

In addition to the California state codes, the Oakland Municipal Code (OMC) legislates the use, registration, sale, and promotion of bicycles in Oakland. This appendix provides summaries and excerpts for all substantive references to bicycles in the OMC. Note that some of these provisions, like the Employer-based Trip Reduction Program (Chapter 10.68), are outdated and potentially in conflict with prevailing laws. Action 2B.4 of this Plan recommends that the bicycle-related sections of the Oakland Municipal Code be examined and revised as needed.

The OMC is available on-line at `http://bpc.iserver.net/codes/oakland`.

Chapter 10.04 General Provisions

10.04.040 Definitions of words and phrases.

"Bicycle" means every device propelled by human power upon which any person may ride, having two tandem wheels either of which is over twenty (20) inches in diameter, and including any device generally recognized as a bicycle though equipped with two front or two rear wheels.

"Traffic" means pedestrians, ridden or herded animals, vehicles, bicycles and other conveyances either singly or together while using any street for purposes of travel.

Chapter 10.16 Miscellaneous Traffic Control Regulations

10.16.130 Regulations of traffic on freeways. No person shall drive or operate any bicycle, motor driven cycle, or any vehicle which is not drawn by a motor vehicle upon any street established as a freeway or limited access highway, nor shall any pedestrian walk across or along any such street so established except in space set aside for the use of pedestrians, provided official signs are in place giving notice of such restrictions.

10.16.150 Bicycles prohibited–General. A. No person shall ride a bicycle which has wheels of twenty (20) inches or greater in diameter or a frame of fourteen (14) inches or greater in length on any sidewalk within the city. This prohibition shall not be applicable to Oakland police officers operating a bicycle while engaged in their assigned duties. B. When appropriate signs are in place giving notice thereof, no person shall ride or otherwise propel any

bicycle in or through that portion of the lower tunnel between the city and Contra Costa County which lies within the corporate limits of the city.

10.16.220 Double penalties for violating traffic regulations in school zones.

Excerpts: B. Proceeds from the collection of fines shall be deposited in a designated Bicycle and Pedestrian School Safety Fund, with the funds used for the creation and maintenance of a comprehensive safe routes to school program, including, but not limited to, the crossing guard program, safety education programs in schools, capital improvements around schools impacting pedestrian and bicycle safety, and tracking and monitoring of safe routes activities.

[Note: The State legislation enabling double fine school zones expired at the end of 2006.]

Chapter 10.68 Employer-based Trip Reduction Program

Summary: This chapter requires Oakland employers with 100 or more employees at a single work site to develop and implement a trip reduction plan that promotes the use of transportation alternatives. The plan may include the employer providing bicyclists with information, travel allowances, and facilities including paths, parking, showers, and lockers.

[Note that this program is no longer active and that this provision in the OMC may be in conflict with prevailing laws.]

Chapter 12.08 Encroachments

12.08.100 Extent of encroachment.

Excerpts: No major or minor encroachment into the public right-of-way may be granted unless a minimum clear space of five and one-half feet remains open for public use in the sidewalk area. Bicycle racks and flagpole sockets may be placed in the area near a curb face if properly located and an encroachment permit is obtained.

[The City of Oakland does not require an encroachment permit of itself for installing a bicycle rack within the City's right-of-way. The permit requirement applies to other entities seeking to install racks in the public right-of-way.]

Chapter 12.60 Bicycles

12.60.010 Bicycle license required. It is unlawful for any person to operate or use a bicycle, as defined in Section 39000 of the California Vehicle Code, upon any street in the city of Oakland without first obtaining a California Bicycle License therefore.

[Note: The Oakland Police Department has not been enforcing this provision of the Oakland Municipal Code. Section 39002(a) of the California Vehicle Code allows local jurisdictions to require licenses by ordinance. State law does not require bicycle licenses.]

12.60.020 Bicycle license–Issuance. The Chief of Police is authorized and directed to issue a registration card and a California bicycle license which, when issued, shall entitle the licensee to operate such bicycle for which said license has been issued, upon all streets, exclusive of sidewalks, in the city for the calendar year or portion thereof for which said license is issued.

[Note: Bicycle licenses are issued in Oakland by the Fire Department.]

12.60.030 Bicycle license plates and registration cards–Loss. It shall be the duty of the Chief of Police to cause to be attached to the frame of each bicycle a California bicycle license, and to issue a registration card to the licensee upon payment of the license fee provided for in this chapter. Upon loss or mutilation of a license, the licensee shall report said loss within seven days. Upon receipt of such report, the Chief of Police shall cancel such license and issue a new license.

12.60.040 Bicycle and bicycle parts business reports. All persons engaged in the business of buying secondhand bicycles or secondhand bicycle parts are hereby required to make a daily report to the Chief of Police, giving the name and address of the person from whom each bicycle or bicycle part is purchased, the description of each bicycle or bicycle part purchased, the frame number or numbers of each bicycle purchased and the number of license found thereon, if any. All persons engaged in the business of selling new or secondhand bicycles or new or secondhand bicycle parts are required to make a daily report to the Chief of Police, giving a list of all sales made by such dealers, which list shall include the name and address of each person to whom sold, the kind of bicycle or bicycle part sold, together with a description thereof and frame number or numbers of each bicycle and the number of the license attached thereto, if any. Junk collectors and junk dealers, as defined in Chapter 5.04 of this code and secondhand dealers and exchange dealers as defined in Chapter 5.46 are required to make daily reports, as in this section provided, for any transaction involving secondhand bicycles or secondhand bicycle parts.

12.60.050 Bicycle licensees report of sale, transfer of registration, or change of address. It shall be the duty of every person who sells or transfers ownership of any bicycle licensed hereunder to report such sale or transfer by returning to the Chief of Police the registration card issued to such person as licensee thereof, together with the name and address of the person to whom said bicycle is sold or transferred, and such report shall be made within ten days of the date of said sale or transfer. It shall be the duty of the purchaser or transferee of such bicycle to apply for a transfer of registration thereof within ten days of the date of said

sale or transfer. Whenever the owner of a bicycle licensed pursuant to this code changes his or her address, he or she shall within ten days notify the Chief of Police of the old and new address.

12.60.060 Destroying bicycle numbers or licenses. It is unlawful for any person to willfully or maliciously remove, destroy, mutilate or alter the number of any bicycle frame licensed pursuant to the provisions of this chapter. It is also unlawful for any person to remove, destroy, mutilate or alter any license plate, seal or registration card during the time in which said license plate, seal or registration card is operated; provided, however, that nothing in this chapter shall prohibit the Chief of Police from stamping numbers on the frames of bicycles on which no serial number can be found, or on which said number is illegible or insufficient for identification purposes.

12.60.070 Bicycle operation rules–Violation–Penalty. It is unlawful to operate a bicycle on any trail within the city in an unsafe, reckless, dangerous or negligent manner. No person shall operate a bicycle in excess of fifteen (15) miles per hour, nor in excess of five miles per hour when passing pedestrians or equestrians or when approaching and negotiating a blind turn, nor at a greater speed then is reasonable or prudent. Within city parks, bicyclists can ride on named trails only and are prohibited from operating bicycles off-trail. Bicyclists must obey all posted signs and rules. Bicyclists must call out when passing pedestrians, or other bicyclists and then must pass to the left. Bicyclists must yield to equestrians by calling out and requesting instructions to pass. The City Manager, or his or her designees, shall determine trail accessibility for bicyclists. Any person who violates this section shall be guilty of an infraction punishable as provided in Chapter 1.28 of this code.

12.60.080 Violation of Sections 12.60.010 through 12.60.060–Fine. Any person who violates or fails to comply with the provisions of Sections 12.60.010 through 12.60.060 shall be subject to a fine of not more than ten dollars ($10.00).

F. Bikeway Descriptions

This appendix provides narrative descriptions of priority bikeway projects, bicycle paths and bridges, major on-street projects, and proposed changes to existing bikeways. It also includes inventories of bridges, freeway crossings, and at-grade railroad crossings on the proposed bikeway network.

F.1 On-street Bikeways – Priority Projects

This section provides short, narrative descriptions for the on-street bikeways that are priority projects as per the explanation in Section 6.1. All bicycle paths, including those that are priority projects, are described in Section F.2.

2nd St (Brush St to Oak St) is part of the San Francisco Bay Trail and serves Jack London Square, the Amtrak Station, and the Oakland/Alameda Ferry. This project would upgrade the existing bicycle route to an arterial bicycle route, providing a better connection between the existing bicycle lanes on 3rd St (to the west) and on Embarcadero (to the east).

4th/5th Aves (E 18th St to Embarcadero) would serve the Lake Merritt Commercial District, Eastlake neighborhood, Oakland Unified School District central offices, and Laney College. It would connect these destinations to the waterfront, and the existing bicycle lanes on Embarcadero. Note that 5th Ave provides the only connection between the neighborhoods and the waterfront from Oak St to 16th Ave.

12th St Reconstruction (Lakeside Dr to Foothill Blvd) is part of the Measure DD projects making improvements around Lake Merritt. This project will replace the 12th St Dam (and the temporary bicycle path along its length) with a boulevard-style street including bicycle lanes and traffic signals. This project is critical for connecting the neighborhoods east of the lake with downtown.

14th St (Wood St to Brush St) would create a new bikeway halfway between W Grand Ave and 8th St, providing a direct connection between the center of West Oakland and downtown. The project would connect to the existing bicycle lanes on Mandela Parkway and serve Lowell Middle School.

14th St (Brush St to Lakeside Dr) would extend the above project from West Oakland into downtown and connect to Lake Merritt at the 12th St Reconstruction. 14th St is the only east-west street in the downtown that is not a freeway access route and connects to both West Oakland and Lake Merritt. As such, it provides the key east-west bikeway

between Grand Ave and Jack London Square. Note that the 11th/12th St couplet provides the primary east-west bus access across downtown.

16th Ave (Foothill Blvd to Embarcadero) would connect San Antonio Park (near Roosevelt Middle School) to the waterfront via the 16th Ave Bridge. For the foreseeable future, this bikeway would provide the only bicycle access to the waterfront between 5th Ave and Fruitvale Ave. The project would build upon the existing bicycle lanes on Embarcadero.

20th St (San Pablo Ave to Harrison St) would serve 19th St BART and the new AC Transit hub between Broadway and Telegraph Ave. The connection to Lake Merritt and Grand Ave (via Harrison St) is especially important given the current number of cyclists from the Adams Point and Grand Lake neighborhoods who are using the Grand Ave bikeway and the 19th St BART station.

38th Ave (MacArthur Blvd to E 12th St) provides a preferred alternative alignment to both 35th Ave and High St. A portion of 38th Ave has surplus width that is well-suited for bicycle lanes. This project is especially important for connecting residents of the Allendale and Laurel Districts to the BART system via a quality bikeway. Note that 38th Ave provides the only good cross-town bikeway between Fruitvale Ave and 55th Ave.

40th St (Emeryville border to Telegraph Ave) would connect Emeryville's bikeway network to the MacArthur BART station. The project would also link to the existing bikeways on Market St and West St. Access on the east side of MacArthur BART would be provided via W MacArthur Blvd and 41st St.

53rd St/55th St/Cavour St (Emeryville border to Shafter Ave) would provide a cross-town connection in North Oakland between Emeryville and the Rockridge commercial district. Major destinations include Rockridge BART, Department of Motor Vehicles, Children's Hospital, and Emery High School. The bikeway would use some local streets for bicycle boulevards while making use of available width on 55th St for bicycle lanes. It would connect the existing Horton St bikeway in Emeryville with the existing Webster/Shafter bikeway in North Oakland.

104th/105th/106th Aves (Stanley Ave to Edes Ave) would provide a cross-town connection in East Oakland between Sobrante Park and Toler Heights, serving the Edes Ave and Elmhurst commercial districts. It provides the best alternative to 98th Ave and makes use of available width on 105th Ave for bicycle lanes.

Bancroft Ave (66th Ave to 82nd Ave) is the remaining project to complete the Bancroft bikeway from 42nd Ave to the San Leandro border. This bikeway continues on Bancroft Ave across the city of San Leandro. The gap closure would connect to the existing 73rd Ave bikeway and provide improved access to Eastmont Town Center and Transit Center as well as Arroyo Viejo Park. The project is also in proximity to Castlemont High School.

Broadway (Keith Ave to MacArthur Blvd) would extend the existing bikeway on Broadway (MacArthur Blvd to 25th St) to the Upper Rockridge neighborhood. Key destinations include the Rockridge commercial district, California College of the Arts, Oakland Tech High School, Kaiser Hospital, and Mosswood Park. This bikeway also serves as an important commuter corridor into downtown Oakland.

Camden/Havenscourt (MacArthur Blvd/International Blvd) would connect the neighborhoods of Millsmont, Picardy, Havenscourt, and Lockwood using available street width for bicycle lanes. Major destinations include Mills College, Frick Middle School, and Havenscourt Middle School. As part of separate projects, this bikeway would ultimately connect to the Coliseum, Coliseum BART, Amtrak, and the Martin Luther King, Jr Regional Shoreline.

College Ave (Alcatraz Ave to Broadway) would serve the Rockridge commercial district, Claremont Middle School, and Rockridge BART, connecting to the Webster/Shafter bikeway and the Skyline regional bikeway (via Chabot Rd). No alternative alignment is possible given the absence of streets parallel to College Ave. Arterial bicycle route improvements are proposed given this lack of alternatives and the number of bicyclist-involved collisions on College Ave. At Alcatraz, the bikeway would jog off of College Ave to Berkeley's Hillegass bicycle boulevard.

E 7th St (Kennedy St to Fruitvale Ave) would upgrade an existing bicycle route to a bicycle boulevard. This bicycle route connects the existing bicycle lanes on Embarcadero and Fruitvale Ave. This on-street component of the San Francisco Bay Trail is an important facility for utilitarian bicycle trips given its low motor vehicle volumes and its connection to downtown.

E 12th St (1st Ave to Fruitvale Ave) would connect the Measure DD projects around Lake Merritt to Fruitvale BART. It would be the primary bikeway linking downtown to the neighborhoods east of the lake including Eastlake, San Antonio, 23rd Ave, and Fruitvale. E 12th St provides an alternative alignment to International Blvd for minimizing conflicts with AC Transit bus lines.

E 12th St (Fruitvale Ave to 40th Ave) would connect Fruitvale BART to the other E 12th St bikeway project and to the 38th Ave bikeway project extending to the Laurel District. This stretch of E 12th St is called out as a separate project due to roadway characteristics different from those to the west of Fruitvale Ave.

Foothill Blvd (23rd Ave to Fremont Wy) would connect through the Fruitvale to the San Antonio and Melrose neighborhoods. Major destinations include Roosevelt Middle School, Foothill/Fruitvale commercial district, Cesar Chavez Park, Fremont High School, Fremont

Pool, and Melrose Library. The stretch of Foothill Blvd provides the only viable east-west bikeway between MacArthur Blvd and E 12th St. Nearby local streets do not provide alternatives because of discontinuities in the street grid and significant hills along Peralta and Courtland Creeks.

Fruitvale Ave (MacArthur Blvd to Foothill Blvd) would connect the Dimond and Fruitvale neighborhoods, serving Dimond Park, Dimond Library, Dimond commercial district, Patten University, and the Foothill/Fruitvale commercial district. Coolidge Ave does not provide a viable alternative given its narrower street width and existing motor vehicle volumes.

Fruitvale Ave (Foothill Blvd to E 12th St) would extend the Fruitvale Ave project described above to Fruitvale BART and the existing bicycle lanes on Fruitvale Ave below E 12th St. While parallel streets could serve the BART station, only Fruitvale Ave provides a direct connection between the Dimond, the Fruitvale, BART, Waterfront Trail, and the City of Alameda.

Grand Ave (Mandela Pkwy to Market St) would close the gap between the existing bicycle lanes on Grand Ave and those on Mandela Pkwy. Nearby destinations include McClymonds High School and the West Oakland Library. This connection would provide for continuous bikeways from Lake Merritt through West Oakland to both Emeryville and Jack London Square. This portion of West Grand Ave would also provide the direct connection to the forthcoming bicycle path on the eastern span of the Bay Bridge.

Lakeshore Ave (MacArthur Blvd to E 12th St) is part of the improvements identified in the Lake Merritt Park Master Plan and funded by Measure DD. The project would connect the Grand Lake to the Lake Merritt commercial district and into downtown via the 12th St Reconstruction project. It is one in a set of projects for providing continuous on-street bicycle lanes around Lake Merritt. It would connect via El Embarcadero to the existing bicycle lanes on Grand Ave.

MacArthur Blvd (Market St to Broadway) would serve MacArthur BART, Kaiser Hospital, and Mosswood Park. It would connect to the existing bicycle lanes on both Broadway and Market St. This portion of W MacArthur Blvd provides an alternative bikeway alignment to 40th St (Telegraph Ave to Broadway), minimizing the potential conflicts with AC Transit bus service in the vicinity of the MacArthur BART transit hub.

MacArthur Blvd (Park Blvd to Lincoln Ave) would close a key gap in the MacArthur bikeway, providing a continuous connection from the Grand Lake (at Lakeshore Ave) to the Laurel (at 35th Ave). It would serve both Edna Brewer Middle School and Oakland High School. Westbound access between Ardley Ave and Park Blvd would be provided on Excelsior Ave due to right-of-way constraints and freeway traffic on Chatham Rd.

MacArthur Blvd (35th Ave to High St) would extend the existing MacArthur bikeway through the Laurel District. It would also connect to the 38th Ave bikeway serving Fruitvale BART. Based on discussions with the Laurel merchants, the proposal is for an arterial bicycle route that would maintain the current roadway configuration with four travel lanes.

Madison/Oak/Lakeside Dr (2nd St to Grand Ave) provides for part of the continuous bicycle lanes around Lake Merritt as well as the on-street bikeway between Lake Merritt and Jack London Square. Major destinations include the Main Library, Alameda County Courthouse, Oakland Museum, Kaiser Convention Center, Laney College, Lake Merritt BART, 19th St BART, and the Jack London Amtrak Station.

Market St (Berkeley border to Adeline St) is a gap closure project between the existing bicycle lanes on Market St and the existing bicycle boulevard on California and King Streets in Berkeley. The project would improve the connections to both Ashby BART and Children's Hospital.

Market St (MacArthur Blvd to 18th St), in conjunction with the Market St project described above, would complete the Market St bikeway. It would provide a continuous bikeway from Jack London Square to Solano Ave in North Berkeley via the California/King bicycle boulevard. It would serve McClymonds High School, Lowell Middle School, and improve connections to both MacArthur BART and West Oakland BART.

Mountain Blvd (Lake Temescal Path to Park Blvd) would connect the Montclair District and the Shepherd Canyon Path to Lake Temescal and the Skyline Regional Bikeway (on upper Broadway). The project would also connect to the proposed Park Blvd Path along Dimond Canyon (between Mountain Blvd and Leimert Blvd). Taken together, these projects would dramatically improve bicycle access in the greater Montclair area.

San Leandro St (66th Ave to 85th Ave) would provide direct access to Coliseum BART and Amtrak. The endpoints of 66th Ave and 85th Ave are significant because these streets provide access to the neighborhoods north of the station area. On the south side, 66th Ave would connect to the San Francisco Bay Trail (at Martin Luther King, Jr Regional Shoreline) while 85th Ave would serve the neighborhoods of Brookfield Village, Columbian Gardens, and Sobrante Park.

Telegraph Ave (Aileen St to 20th St) would extend the existing bicycle lanes in North Oakland and in Berkeley into downtown Oakland. Major destinations include 19th St BART, Summit Medical Center, MacArthur BART, Temescal Library, and the Northgate and Temescal commercial districts. Telegraph Ave would provide a direct connection between downtown Oakland and the University of California, Berkeley. This bikeway is provisionally designated as part of the proposed bikeway network. This provisional designation will only be lifted, and this bikeway automatically incorporated into the proposed

bikeway network, if further environmental review is performed and appropriate CEQA findings are adopted by the City.

Telegraph Ave (20th St to Broadway) would serve the emerging Uptown district. Major destinations include Frank Ogawa Plaza, 12th St BART, 19th St BART, and the AC Transit hub on 20th St (at Telegraph Ave). This portion of Telegraph Ave also provides a viable alternative to Broadway for bicycling into downtown.

Washington/Clay Sts (Telegraph Ave to 2nd St) would improve and extend portions of an existing bicycle route. Major destinations include Jack London Square, Oakland Ferry Terminal, Old Oakland, Oakland Convention Center, Federal Building, State Building, and Frank Ogawa Plaza. By connecting to Telegraph Ave via 16th and 17th Streets, this project provides an alternative to Broadway for the west side of downtown.

Webster/Franklin couplet (25th St to 8th St) would provide an alternative to Broadway for the east side of downtown. Major destinations include the Kaiser Building and surrounding office towers, 19th St BART, 12th St BART, and Chinatown. The project would connect to the existing bicycle lanes on Broadway above 25th St, providing a key commuter bikeway into downtown.

Webster/Shafter/Forest/Colby (Berkeley border to 29th St), known as the Webster/Shafter bikeway, is an existing route on local streets that provides an important (but less direct) alternative to Broadway and Telegraph Ave. The project would improve the route as a bicycle boulevard, connecting to the Hillegass bicycle boulevard in Berkeley. The route serves the Rockridge BART and commercial district, Studio One Arts Center, Temescal Pool, Temescal commercial district, Carter Middle School, Mosswood Park, and Summit Medical Center.

F.2 Bicycle Paths and Bridges

The following bicycle paths and bridges are included in the proposed bikeway network:

4th St Path (existing) connects the end of 4th St (near Fallon St) to the Lake Merritt Channel Path. This path is being reconstructed by Caltrans as part of the seismic retrofit to I-880 in this vicinity.

7th St Path (existing, substandard) connects 7th St at Wood St to Middle Harbor Shoreline Park. Between Wood St and the railroad tracks (immediately west of I-880), the path does not meet Caltrans standards for width or lateral separation from the adjacent roadway.

Airport Dr Path (existing) connects Doolittle Dr to Ron Cowan Pkwy. The path is in the jurisdiction of the Port of Oakland.

Bay Bridge Connector Paths (proposed) would link the bicycle path on the new eastern span of the Bay Bridge to the bikeway networks in Oakland and Emeryville. It includes the following segments: (a) Burma Rd (Bay Bridge Path to Maritime St Path); and (b) Interstate 80 (Burma Rd to Shellmound St/40th St).

Brookfield Bridge (existing) connects Jones Ave to Coral Rd over I-880 near 98th Ave.

Burdeck Path (existing) is parallel to Highway 13 and connects the end of Burdeck Dr to Joaquin Miller Rd at Highway 13.

Coliseum BART to Bay Trail Connector Path (proposed) would link San Leandro St at 73rd Ave to Oakport St at 66th Ave along Damon Slough. Alameda County is the lead agency for this project.

East Bay Greenway (proposed) would create a linear park between Oakland's San Antonio neighborhood (around 16th Ave) and the Fremont BART Station along the BART right-of-way and/or Union Pacific Railroad right-of-way. In Oakland, the proposed greenway would include a bicycle path from Fruitvale BART to the San Leandro border, parallel to San Leandro St.

Genoa-King Connector (proposed) would connect the Genoa St bikeway to the King St bicycle boulevard in Berkeley. This segment would cross the raised medians on Adeline St and Stanford Ave. Because of the associated design issues, it is identified here as path connector.

Lake Merritt Channel Path and Bridge (partially existing) would connect the Oakland Estuary to Lake Merritt via the Lake Merritt Channel. It would include a connection from the Channel to 5th Ave in the vicinity of I-880 and the 4th St Path. The bicyclist and pedestrian bridge would cross Embarcadero and the adjacent railroad tracks at the Channel.

Lake Merritt Path (partially existing) will improve the existing path around the perimeter of Lake Merritt as per the Lake Merritt Park Master Plan. It includes a bicycle and pedestrian bridge over the Channel at Lake Merritt.

Lake Temescal Bridge (proposed) would link the Lake Temescal Path to Tunnel Rd near the interchange of Highways 24 and 13.

Lake Temescal Path (existing) connects Broadway to Broadway Terrace between Lake Temescal and Highway 13. This path is in jurisdiction of the East Bay Regional Park District.

Leona Quarry Path (proposed) would connect Mountain Blvd at Edwards Ave to Mountain Blvd at Kunhle Ave, parallel to Interstate 580.

Maritime St Path (proposed) would parallel Maritime St from 7th St to W Grand Ave. This project depends upon the reuse of the Oakland Army Base.

Martin Luther King, Jr. Regional Shoreline Paths (partially existing) are the most extensive network of bicycle paths in Oakland. The incomplete segments parallel Doolittle Dr along Airport Channel from Swan Wy to Harbor Bay Pkwy and would connect to the existing network of paths in this regional park.

Middle Harbor Rd Path (proposed) would parallel Middle Harbor Rd from 7th St to the Adeline St overpass near 3rd St. The Port of Oakland would be the lead agency on this project.

Oyster Bay Path (existing) connects the Airport Dr Path (near Ron Cowan Pkwy) to the proposed Oyster Bay Slough Bridge. The path is in the jurisdiction of the Port of Oakland.

Oyster Bay Slough Bridge (proposed) would connect the Oyster Bay Path to bicycle paths in Oyster Bay Regional Shoreline. The City of San Leandro is the lead agency for this Bay Trail project.

Park Blvd Path (proposed) would parallel Park Blvd along Dimond Canyon from Leimert Blvd to Monterey Blvd. Based on the available right-of-way, consider including a bicycle lane in the uphill direction to accommodate on-road cyclists and to reduce conflicts between pedestrians and bicyclists on the path.

Posey Tube Path (existing, substandard) connects Jack London Square (at Harrison St and 6th St) to Alameda via the Posey Tube. As part of State Highway 61, the path is within the jurisdiction of Caltrans. This path does not meet Caltrans standards for width.

Ron Cowan Path (existing) connects Air Cargo Rd to Airport Dr parallel to Ron Cowan Parkway. This path is within the jurisdiction of the Port of Oakland.

San Leandro Creek Path (proposed) would connect Hegenberger Rd to 98th Ave along San Leandro Creek. This land is under the jurisdiction of the Alameda County Flood Control District.

Shepherd Canyon Path (existing) connects Montclair Village to Saroni Dr via a former railroad right-of-way.

Waterfront Trail (partially existing) would connect Jack London Square to Martin Luther King, Jr. Regional Shoreline along the Oakland Estuary. Of the 40 segments that comprise the project, segments #21 and #40 are not paths and thus not included in the proposed bikeway network. Segment #36 includes a Class 2 bicycle lane on Tidewater Ave and it is included as part of the proposed bikeway network as an on-street facility.

F.3 Major On-street Projects

The proposed bikeway network includes the following projects that would require significant transportation analyses or physical modifications beyond those typically associated with on-street bikeways.

One-way to Two-way Street Conversions: While two-way streets are typically preferable for bicycle travel, the *Bicycle Master Plan* does not propose street conversions for this general benefit. Rather, the following one-way to two-way conversions would overcome specific barriers that are embedded in the proposed bikeway network:

- *Carlston St (Mandana Blvd to Paramount Rd)*: This one block segment is a key link in the most level route between the Grand Lake neighborhood and the Leimert Bridge via Mandana Blvd and Sunnyhills Rd. Currently, it is configured as a one-way street in the downhill direction and thus does not accommodate uphill bicyclists. If two-way bicycle travel on this segment should prove infeasible, the plan identifies an alternative but less desirable route via Longridge Rd and Midcrest Rd.

- *E 12th St (40th Ave to 44th Ave)*: This eastbound, one-way segment over the 42nd Ave subway creates a very difficult barrier by forcing westbound cyclists onto High St and International Blvd or San Leandro St. Except for this barrier, E 12th St provides a strongly recommended alternative to both International Blvd and San Leandro St between Fruitvale Ave and 54th Ave. Overcoming this barrier should be a priority in the development of the E 12th St bikeway.

- *Webster St (21st St to Grand Ave)*: The *Bicycle Master Plan* recommends bikeways on Webster St and Franklin St as an alternative to Broadway in the downtown. However, the one-way street system forces cyclists traveling northbound on Franklin St to use Broadway from Franklin St (at 22nd St) to 25th St (at Webster St). In contrast, bicyclists could avoid this constrained section of Broadway if Webster St from 21st St to Grand Ave allowed for two-way travel. Northbound cyclists on Franklin St could then turn right on 21st St, left on Webster St, and meet up with the existing Broadway bicycle lanes where Webster St intersects Broadway at 25th St. If this conversion should be infeasible, the recommended alternative is an arterial bicycle route (Class 3A) on Broadway (22nd St to 25th St).

Right-of-way Constraints: The following segments failed the capacity analysis and do not have a viable alternative. No parallel route exists and no alternative cross-section would adequately accommodate bicycle travel. These segments are central to the overall integrity

of the bikeway network and thus could not be eliminated. They are reserved as long-term projects in that their implementation would likely require major roadway reconstruction.

- *14th Ave (E 31st St to E 12th St)*: 14th Ave provides the most level route up to MacArthur Blvd between Lake Merritt and Fruitvale Ave. However, the available volume data suggest that a lane conversion project may not be feasible on this roadway. Additionally, the existing right-of-way does not provide adequate width for a Class 3A treatment. 13th Ave and 16th Ave (with a connection via E 21st St) could provide a viable alternative if traffic calming were implemented on 13th Ave to discourage through motor vehicle trips.

- *23rd Ave overcrossings (E 12th St to Kennedy St) plus 22nd Ave (Foothill Blvd to E 12th St)*: The two bridge structures over Interstate 880 and the railroad tracks cannot accommodate bicycle access in their current form. This proposed bikeway segment was retained because it would connect the waterfront with the neighborhoods between 16th Ave and Fruitvale Ave. Bikeway access should be included with any future reconstruction of the 23rd Ave overcrossings.

- *High St (E 12th St to Oakland Estuary)*: This congested and constrained undercrossing of Interstate 880 provides the only access route to the waterfront between Fruitvale Ave and 66th Ave. Under the existing conditions, there is no feasible proposal for bicycle access.

F.4 Bridges and Freeway Crossings

In Section F.2, a small number of bicycle bridges are proposed at locations of key importance. But in general, the proposed bikeway network uses existing structures on the roadway network to cross freeways, bodies of water, and railroad tracks. In most cases, these structures were built at a time when bicycle access was not a design consideration and thus these structures often create barriers to bicycle travel. Bridges, underpasses, and tunnels may be too narrow for a quality bicycle facility. Underpasses and tunnels may be poorly lit. At crossings where freeway access is provided, high speed turning movements may create conflicts with bicyclists. In the long term, these structures will be rebuilt for seismic reasons or due to changing needs and priorities. At that time, the redesign of these structures should fully consider improvements to bicycle access as per Actions 1B.3 and 1B.4. These structures include, but are not limited to, the following crossings:

- *Lake Merritt Channel* at the 12th St Dam, 10th St, and Embarcadero

- *Oakland Estuary* at the Webster/Posey Tubes, Park St Bridge, Fruitvale Bridge (Miller-Sweeney Bridge), and High St Bridge
- *Railroad crossings* at Adeline St (near 3rd St), 23rd Ave (near E 12th St), and Hegenberger Rd (near San Leandro St)
- *Interstate 580* at Adeline St, Market St, West St, Oakland Ave/Harrison St, Grand Ave, Lakeshore Ave, Park Blvd, MacArthur Blvd (at Buell St), Seminary Ave, Edwards Ave, and 98th Ave
- *Interstate 880* at W Grand Ave, Madison St/Oak St, 5th Ave, 23rd Ave, High St, 66th Ave, and Hegenberger Rd
- *Interstate 980* at 14th St and 27th St
- *Highway 13* at Broadway Ter, Moraga Ave, Park Blvd, Redwood Rd, and Davenport Ave (at Interstate 580)
- *Highway 24* at 40th St, Telegraph Ave, Claremont Ave, and Broadway (from Keith Ave to Golden Gate Ave)

F.5 At-Grade Railroad Crossings

Figures F.1 and F.2 provide an inventory of at-grade railroad crossings on the proposed bikeway network. The inventory includes the location of the crossing, orientation of the tracks relative to the travel way, paving material at the crossing, and pavement quality. Tracks that are not perpendicular to the travel way are of particular concern to cyclists because of the potential for bicycle wheels to get caught in the flangeway gap. Concrete pads are the preferred paving material because they provide a smooth crossing with superior durability. The overall pavement quality for each crossing was ranked as poor, fair, good, or excellent.

F.6 Proposed Changes to Existing Bikeways

This Plan includes proposals for upgrading most existing Class 3 bicycle routes to Class 3A arterial bicycle routes or Class 3B bicycle boulevards. (The exceptions are the existing routes above Mountain Blvd.) In addition to these general changes, the following modifications are proposed to existing bikeways:

2nd Ave (E 15th St to E 10th St): This existing bicycle route will be replaced by bicycle lanes on 1st Ave as per the 12th St Reconstruction project.

Roadway	Location	Orientation	Sets of Tracks	Paving Material	Pavement Quality
105th Ave	between San Leandro St and Russett St	perpendicular	1	concrete	excellent
105th Ave	between Pearmain St and Edes Ave	perpendicular	1	concrete	excellent
105th Ave	between International Blvd and San Leandro St	parallel	1	asphalt	fair
14th St	at Poplar St	perpendicular	2	asphalt	poor
16th Ave	between Embarcadero and I-880	perpendicular	1	asphalt	fair / good
23rd Ave	at Glascock St	perpendicular	1	asphalt	fair / good
29th Ave	at Glascock St	angle	1	asphalt	fair / good
3rd St	between Mandela Pkwy and Union St	perpendicular	2	concrete	excellent
54th Ave	between San Leandro St and E 10th St	perpendicular	2	concrete / asphalt	excellent / poor
5th Ave	at Embarcadero	perpendicular	4	concrete	excellent
66th Ave	Coliseum Wy and San Leandro St	perpendicular	3	concrete	excellent
66th Ave	between San Leandro St and Olmstead St	perpendicular	2	concrete / asphalt	excellent / fair
75th Ave	between San Leandro St and Snell St	perpendicular	2	concrete / asphalt	excellent / fair
7th St	west of Maritime St	angle	1	asphalt	excellent
7th St	at Union St	perpendicular	1	concrete	excellent
7th St	at Middle Harbor Rd	angle	1	asphalt	excellent
85th Ave	between San Leandro St and Blaine St	perpendicular	2	concrete / asphalt	excellent / good
85th Ave	between Railroad Ave and San Leandro St	angle	3	concrete	excellent
8th St	at Union St	perpendicular	1	asphalt	fair
92nd Ave	between San Leandro St and G St	perpendicular	2	concrete / asphalt	excellent / fair
Clay St	at Embarcadero	perpendicular	3	concrete	excellent
E 12th St	between 46th Ave and 47th Ave	perpendicular	4	asphalt	fair / poor
E 7th St	between Kennedy St and Embarcadero	angle	1	asphalt	excellent / good

Figure F.1: *At-Grade Railroad Crossings (1 of 2)* on the proposed bikeway network.

Roadway	Location	Orientation	Sets of Tracks	Paving Material	Pavement Quality
E 7th St	between Fruitvale Ave and Lancaster St	perpendicular	1	asphalt	good
Edes Ave	between Cary Ave and 105th Ave	angle	1	concrete	good
Embarcadero	at 7th Ave	parallel	1	asphalt	poor
Embarcadero	at 8th Ave	angle	1	concrete	good
Embarcadero	at 10th Ave	angle	1	concrete	excellent
Fruitvale Ave	between San Leandro St and E 9th St	perpendicular	2	concrete	excellent
Fruitvale Ave	at E 7th St	angle	1	asphalt	poor
High St	between Coliseum Wy and Wattling St	perpendicular	3	asphalt	poor
High St	at Oakport St	angle	1	asphalt	fair / poor
International Blvd	at 105th Ave	perpendicular	1	asphalt	fair
Mandela Pkwy	at 26th St	angle	1	rubber	excellent
Mandela Pkwy	at 18th St	perpendicular	2	concrete	excellent
Maritime St	between Bataan Ave and W 14th St	angle	1	asphalt	good
Maritime St	between Alaska St and Bataan Ave	angle	1	asphalt	fair
Market St	at Embarcadero	perpendicular	3	concrete	excellent
Middle Harbor Rd	east of K St	angle	1	asphalt	excellent
Oak St	between Embarcadero and 2nd St	perpendicular	5	concrete	excellent
Peralta St	at Poplar St	angle	1	asphalt	fair
Peralta St	at 26th St	angle	1	asphalt	SB poor, NB fair
Peralta St	at 20th St	perpendicular	2	alphalt	poor
Peralta St	at 18th St	perpendicular	2	asphalt	poor
San Leandro St	at 47th Ave	angle	1	asphalt	poor
Tidewater Ave	between Lesser St and High St	angle	1	asphalt	poor
Tidewater Ave	between Lesser St and High St	angle	1	asphalt	poor
W Grand Ave	at Poplar St	perpendicular, angle	1	asphalt	good / fair
Wood St	near Beach St (under I-	angle	1-2	asphalt	poor
Wood St	between 32nd St and 34th St	parallel	1	asphalt / dirt	poor

Figure F.2: *At-Grade Railroad Crossings (2 of 2)* on the proposed bikeway network.

8th St (Mandela Pkwy to Market St): These existing bicycle lanes required the removal of curbside parallel parking in a residential neighborhood that has created conflicts with residents. Consider replacing the bicycle lanes with a bicycle boulevard on this low-volume local street.

Broadway (25th St to 2nd St): This existing bicycle route is proposed to be replaced by a bikeway on the Webster/Franklin couplet (25th St to 8th St) and the existing bikeway on Washington St (9th St to 2nd St). This rerouting will both reduce conflicts with bus operations and make use of streets where significant bicycle improvements are more likely feasible.

Broadway Ter (Lake Temescal Path to Clarewood Dr): This existing bicycle route is proposed to be replaced by Broadway to the north and Moraga Ave to the south. This section of Broadway Ter was removed from the bikeway network because of a 250-foot elevation gain with an average slope of 9% and a maximum slope of 11%. See the slope analysis for additional details.

Mountain Blvd (Broadway Ter to Moraga Ave): This existing bicycle route is proposed for some minor rerouting to make use of streets with lower motor vehicle volumes and speeds. In particular, the proposed routing follows Fernwood Dr and uses Mountain Blvd (rather than Moraga Ave) through Montclair Village. See the maps of existing bikeways and the proposed bikeway network for complete details.

Oakport St (High St to Hassler Wy): This existing bicycle route is proposed to be replaced with the Waterfront Trail, including bikeways on Tidewater Ave and Edgewater Dr. These alternatives provide a route that is comparably direct while avoiding the freeway traffic and views associated with Oakport St. The existing bicycle route on Hassler Wy (Oakport St to Edgewater St) would also be removed.

Ron Cowan Pkwy (Air Cargo Wy to Airport Dr): The Port of Oakland proposes to remove these existing bicycle lanes in favor of the existing bicycle path along the same stretch of roadway.

G. Requirements for Bikeway Feasibility Studies

The following requirements for bikeway feasibility studies provide a framework for the development and implementation of segments on the proposed bikeway network as described by the *Bicycle Master Plan*. Proposed bikeways that are not included in the proposed bikeway network would be subject to the same requirements. These requirements provide the mechanism for the environmental clearance of the proposed bikeways in that the application of these requirements would result in the identification and mitigation of potential impacts as described in the associated program EIR.[1] The following requirements apply to all bikeway projects: (1) Data Collection, (5) Comparative Analysis of Alternatives, (6) Conceptual Plans, and (7) Reporting. Additional requirements apply to projects of particular types: (2) Analysis of Travel Lane Removal, (3) Analysis of Parking Space Removal, and (4) Analysis of Bicycle Path Alignment.

1. *Data Collection: Base Information.* Obtain recent project area information that may include aerial photos, topography, speed surveys, bicyclist counts, collision history, land uses, and related projects. For bicycle paths, collect project area information as applicable on water resources, biological resources (including sensitive habitats and trees), hazardous materials, and cultural resources.

2. *Analysis of Travel Lane Removal* (*if applicable; see Figure G.1*).

   (a) *Data Collection: Traffic Counts.* Obtain recent peak period count data of vehicles, pedestrians, transit, and on-street parking at key intersections.

   (b) *Intersection Operations Analysis.* Identify operating conditions at key intersections under four scenarios (existing, existing plus project, cumulative, cumulative plus project).[2] The key intersections will be determined based on engineering judgment and generally include most signalized intersections. Identify

[1] This framework does not address bikeway projects that would require the removal of a continuous two-way center turn lane. Two bikeways of this type are provisionally included in the proposed bikeway network: Telegraph Ave (Aileen St to 20th St) and International Blvd (54th Ave to 82nd Ave). This provisional designation will only be lifted, and these segments automatically incorporated into the proposed bikeway network, if further environmental review is performed and appropriate CEQA findings are adopted by the City.

[2] Model years for five- and twenty-year cumulative scenarios are determined by the Alameda County Congestion Management Agency (ACCMA). At the time of this writing, the ACCMA was transitioning from 2010/2025 model years to 2015/2030 model years. For analyses of travel lane removal, bikeway feasibility studies include the twenty-year scenario to assess the potential for long term impacts. Five-year cumulative scenarios may also be included in some cases.

impacts related to any traffic diversion. Provide a qualitative analysis of circulation, access, parking, and safety for all transportation modes.

(c) *MTS Analysis* (*if applicable; see Figure G.2*). Identify street segment volume-to-capacity (V/C) ratios under two scenarios (cumulative, cumulative plus project). The forecast year for the cumulative scenario will be determined by ACCMA staff.

(d) *Transit Streets Analysis* (*if applicable; see Figure G.3*). Identify project impacts on bus travel time and bus stop operations under four scenarios (existing, existing plus project, cumulative, cumulative plus project). The analysis will include potential impacts from other bikeway and streetscape projects proposed along the bus line in question. For projects that would result in one travel lane per direction, the analysis will also consider incident delays (due to double-parked vehicles).

3. *Analysis of Parking Space Removal* (*if applicable; see Figure G.4*). Conduct a parking occupancy and turnover survey for proposed projects that would result in the removal of ten percent or more spaces within the project area. The study will be used to determine project specific impacts and to identify opportunities for minimizing any impacts of the proposed parking removal.

4. *Analysis of Bicycle Path Alignment* (*applies to all bicycle path projects*): Conduct an analysis of the proposed bicycle path alignment with respect to any water resources, biological resources, hazardous materials, and cultural resources identified by the data collection. If the alignment would cause a significant adverse impact, develop an alternative alignment that would avoid or reduce that impact, if feasible.

5. *Comparative Analysis of Alternatives.* Complete a comparative analysis of the project and no project alternatives. Include one or more additional alternatives if such alternatives exist, they meet the project goals, and they respond to issues identified in the project analysis. For on-street bikeways, the analysis will address whether the motor vehicle impacts (circulation and/or parking) would be offset by improved safety and access for bicyclists and pedestrians.

6. *Conceptual Plans.* Prepare preliminary conceptual plans and cross sections of selected intersections and mid-block locations under two scenarios (existing, existing plus project). For bicycle paths, prepare preliminary conceptual plans for path alignment and roadway crossings.

7. *Reporting.* Prepare draft and final reports. The reports will include data, analysis, findings, recommendations, and responses to comments from agency stakeholders and community members. The reports will explain how the feasibility study meets the requirements established by the Program EIR for the *Bicycle Master Plan.* If the study does not meet these requirements, the project will require additional environmental review.

Roadway	From	To	Miles
10th St	Madison St	Oak St	0.07
14th Ave	E 31st St	E 19th St	0.83
14th St	Brush St	Lakeside Dr	0.97
17th St	Clay St	Telegraph Ave	0.12
22nd/23rd Aves	Foothill Blvd	Kennedy St	0.94
27th St	San Pablo Ave	Harrison St	0.89
40th St	Adeline St	MLK Jr Wy	0.55
66th Ave	San Leandro St	Coliseum Wy	0.28
7th St	Castro St	MLK Jr Wy	0.06
8th St	MLK Jr Wy	Jefferson St	0.07
8th St	Harrison St	Oak St	0.29
9th St	MLK Jr Wy	Clay St	0.14
Adeline St	Genoa St	47th St	0.62
Adeline St	36th St	5th St	1.77
Bancroft Ave	66th Ave	82nd Ave	1.00
Broadway	Keith Ave	I-580	1.68
Claremont Ave	Alcatraz Ave	Telegraph Ave	1.16
Clay St	17th St	9th St	0.41
E 12th St	2nd Ave	Fruitvale Ave	2.23
Foothill Blvd	14th Ave	23rd Ave	0.68
Franklin St	21st St	8th St	0.77
Fruitvale Ave	Foothill Blvd	E 12th St	0.55
Golf Links Rd	Grass Valley Rd	Scotia	0.28
Grand Ave	Market St	Mandela Pkwy	0.61
Harrison St	27th St	20th St	0.37
High St	E 12th St	Alameda border	0.68
Lakeshore Ave	I-580	Foothill Blvd	0.89
Lakeside Dr	Harrison St	14th St	0.52
MacArthur Blvd	Market St	Fairmount Ave	1.21
MacArthur Blvd	High St	Buell St	0.46
MacArthur Blvd	73th Ave	Foothill Blvd	1.75
Madison St	Lakeside Dr	5th St	0.74
Market St	MacArthur Blvd	24th St	0.84
MLK Jr Wy	20th St	2nd St	0.97
Mountain Blvd	Keller Ave	Fontaine overcrossing	0.36
Oak St	14th St	7th St	0.26
Oak St	2nd St	Embarcadero	0.05
Park Blvd	Grosvenor Pl	E 18th St	1.13
Seminary Ave	Sunnymere Ave	MacArthur Blvd	0.78
Telegraph Ave	20th St	Broadway	0.29
Webster St	25th St	8th St	1.14
West St	52nd St	MacArthur Blvd	0.67
Total Mileage			**30.08**

Figure G.1: *Analysis of Travel Lane Removal.* Proposed bikeways that would require the removal of one or more travel lanes.

Roadway	From	To	Miles
14th St	Brush St	Lakeside Dr	0.97
7th St	Castro St	MLK Jr Wy	0.06
8th St	MLK Jr Wy	Jefferson St	0.07
Adeline St	Genoa St	47th St	0.62
Adeline St	36th St	W Grand Ave	0.80
Broadway	Keith Ave	I-580	1.68
Claremont Ave	Alcatraz Ave	Telegraph Ave	1.16
E 12th St	2nd Ave	Fruitvale Ave	2.23
Fruitvale Ave	Foothill Blvd	E 12th St	0.55
Golf Links Rd	Grass Valley Rd	Scotia	0.28
Grand Ave	Market St	Mandela Pkwy	0.61
Harrison St	27th St	20th St	0.37
High St	E 12th St	Alameda border	0.68
MacArthur Blvd	Market St	Fairmount Ave	1.21
MacArthur Blvd	High St	Buell St	0.46
MacArthur Blvd	73th Ave	98th Ave	1.29
MLK Jr Wy	20th St	5th St	0.74
Park Blvd	Grosvenor Pl	E 18th St	1.13
Telegraph Ave	20th St	Broadway	0.29
Webster St	14th St	8th St	0.30
Total Mileage			**15.50**

Figure G.2: *MTS Analysis.* Proposed bikeways on the Metropolitan Transportation System (MTS) that would require the removal of one or more travel lanes.

Roadway	From	To	Cross-section	Miles
14th Ave	E 31st St	E 19th St	T2	0.83
40th St	Adeline St	MLK Jr Wy	T2	0.55
66th Ave	San Leandro St	Coliseum Wy	T3	0.28
Adeline St	36th St	5th St	T3	1.77
Broadway	College Ave	MacArthur Blvd	T4	0.91
Foothill Blvd	14th Ave	23rd Ave	T3	0.68
Fruitvale Ave	Foothill Blvd	E 12th St	T2, T3	0.55
MacArthur Blvd	High St	Buell St	T2, T3	0.46
MacArthur Blvd	73th Ave	Foothill Blvd	TS2, TS3	1.94
Park Blvd	Grosvenor Pl	E 18th St	T3	1.13
W Grand Ave	Market St	Mandela Pkwy	T4	0.61
Total Mileage				**9.71**

Figure G.3: *Transit Streets Analysis.* Proposed bikeways that would require the removal of one or more travel lanes on key transit streets.

Roadway	From	To	Miles
66th Ave	International Blvd	San Leandro St	0.55
Broadway	Golden Gate Ave	Brookside Ave	0.11
Broadway Ter	Lake Temescal Path	Duncan Wy	0.32
E 12th St	40th Ave	High St	0.18
Edwards Ave	Mountain Blvd	Sunnymere Ave	0.17
MacArthur Blvd	High St	Seminary Ave	1.10
Mountain Blvd	Blackwood St	Golf Links Rd	0.81
San Leandro St	54th Ave	Seminary Ave	0.32
Total Mileage			**3.56**

Figure G.4: *Analysis of Parking Removal.* Proposed bikeways that would require the removal of 10% or more of the parking spaces within the project area.

H. Supplementary Documentation

This appendix contains documentation for the Plan's analyses. These files are available in pdf format on a CD that accompanies the Plan (upon request). It includes the following documentation:

- *Citywide Feasibility Analysis*
- *Citywide Feasibility Analysis – Explanation of Fields*
- *Street Grade Analysis*
- *Project Prioritization Table*

These files, along with the *Bicycle Master Plan,* are also available at `www.oaklandbikes.info`.

I. Oakland City Council Resolution No. 80959

FICE

Approved as to Form and Legality
Mark P. Wald
Oakland City Attorney's Office

OAKLAND CITY COUNCIL

Resolution No. 80959 C.M.S.

RESOLUTION CERTIFYING THE ENVIRONMENTAL IMPACT REPORT AND ADOPTING THE COMPREHENSIVE REVISION TO THE BICYCLE MASTER PLAN AS PART OF THE LAND USE AND TRANSPORTATION ELEMENT OF THE CITY'S GENERAL PLAN

WHEREAS, California Government Code Section 65300 requires that every planning agency prepare, and every legislative body of every county and city adopt, a comprehensive, long-term general plan for the physical development of the county or city; and

WHEREAS, California Government Code Section 65302 requires that the general plan include a circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, any military airports and ports, and other local public utilities and facilities, all correlated with the land use element of the plan; and

WHEREAS, The State of California's "General Plan Guidelines" recommends that the general plan be revised as new information becomes available and as community needs and values change; and is of the opinion that a general plan based on outdated information and projections is not a sound basis for day-to-day decision making; and

WHEREAS, the City of Oakland adopted a Bicycle Master Plan in 1999, as part of the Land Use and Transportation Element of the General Plan, which serves as the official policy document addressing the development of facilities and programs to enhance the role of bicycling as a viable and appropriate transportation mode in Oakland; and

WHEREAS, the City of Oakland has prepared, with input of City staff, the public and other interested public agencies, a draft of a comprehensive revision to the Bicycle Master Plan (Revised Bicycle Master Plan); and

WHEREAS, based on an Environmental Impact Report (EIR) prepared under the California Environmental Quality Act ("CEQA") for Revised Bicycle Master Plan, it was determined that the Revised Bicycle Master Plan does not have any significant and unavoidable impacts; and

WHEREAS, the Revised Bicycle Master Plan and the EIR were circulated for public review and comment for the requisite periods of time, including among the general public and among relevant government entities, as required by state law and regulations, and including a public hearing before the City Planning Commission on April 18, 2007; and

WHEREAS, the City Planning Commission at a duly noticed public hearing on October 17, 2007, considered the Revised Bicycle Master Plan and the EIR, and recommended certification of the EIR and adoption of the Revised Bicycle Master Plan; and

WHEREAS, the Community and Economic Development Committee, at a duly noticed meeting on November 13, 2007, considered the Revised Bicycle Master Plan and the EIR, and recommended certification of the EIR and adoption of the Revised Bicycle Master Plan; and

WHEREAS, the City Council held a duly noticed public hearing on December 4, 2007 to consider the Revised Bicycle Master Plan and the EIR; now, therefore, be it

RESOLVED: That, the City Council, exercising its independent judgment, has reviewed and considered the EIR and certifies the EIR for the Revised Bicycle Master Plan, confirms, adopts and incorporates into this resolution by reference, as its findings and determinations, the CEQA findings made by the Planning Commission, and determines that this resolution complies with CEQA..

FURTHER RESOLVED: That the City Council hereby adopts the Revised Bicycle Master Plan as a component of the Land Use and Transportation Element of the City's General Plan and also adopts the Mitigation Monitoring and Reporting Program (Exhibit A); and be it

FURTHER RESOLVED: That in support of the City Council's decision to certify the EIR and adopt the Revised Bicycle Master Plan, the City Council affirms and adopts, as its findings and determinations, (1) the October 17, 2007 City Planning Commission Report and (2) the November 13, 2007 City Council Agenda Report, hereby incorporated by reference; and be it

FURTHER RESOLVED: That the City Administrator is directed to file a Notice of Determination with the Alameda County Clerk within five (5) working days of this approval; and be it

FURTHER RESOLVED: That, the record before this Council relating to this resolution includes, without limitation, the following:

1. the Revised Bicycle Master Plan, including all accompanying maps *and papers*;

2. all final staff reports, final decision letters and other final documentation and information produced by or on behalf of the City, including without limitation the EIR and supporting final technical studies and appendices, and all related/supporting final hearing materials, and all final notices relating to the General Plan Amendment and attendant hearings; and

3. all oral and written evidence received by the City Planning Commission and City Council during the public hearings on the General Plan Amendment; and all written evidence received by relevant City Staff before and during the public hearings on the General Plan Amendment and EIR; and

4. all matters of common knowledge and all official enactments and acts of the City, such as (a) the General Plan; (b) Oakland Municipal Code, including, without limitation, the Oakland real estate regulations and Oakland Fire Code; (c) Oakland Planning Code; (d) other applicable City policies and regulations; and (e) all applicable state and federal laws, rules and regulations; and be it

FURTHER RESOLVED: That the custodians and locations of the documents or other materials which constitute the record of proceedings upon which the City Council's decision is based are: (a) Community and Economic Development Agency, Planning and Zoning Division, 250 Frank Ogawa Plaza, Suite 3315, Oakland, California; and (b) Office of the City Clerk, 1 Frank H. Ogawa Plaza, 1st Floor, Oakland, California

IN COUNCIL, OAKLAND, CALIFORNIA, DEC 4 2007

PASSED BY THE FOLLOWING VOTE:

AYES - ~~BRUNNER~~, KERNIGHAN, NADEL, QUAN, BROOKS, REID, CHANG, AND PRESIDENT DE LA FUENTE – 7

NOES – ~~0~~
ABSENT – ~~0~~
ABSTENTION – ~~0~~
Excused - Brunner - 1

ATTEST:

LATONDA SIMMONS
City Clerk and Clerk of the Council of
the City of Oakland, California

J. Mitigation Monitoring and Reporting Program

OAKLAND BICYCLE MASTER PLAN
MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures or Standard Conditions	Condition of Approval Nos.	Resulting Level of Significance[1]	Monitoring Responsibility[2]	Monitoring Timeframe
A. Transportation, Circulation, and Parking					
A.1: Implementation and use of new off-street bikeways, as proposed in the Bicycle Master Plan, could cause potential environmental impacts within the Plan area.	**Standard Condition A.1:** The project shall incorporate all of the City's uniformly-applied Standard Conditions (provided as Attachment F and incorporated in this Standard Condition by reference).		Less than Significant	City of Oakland Transportation Services Division and Planning and Zoning Division	Prior to project completion
A.2: Adding bikeway signage and striping to existing roadways in the Plan area, as proposed in the Bicycle Master Plan, could affect traffic operations.	None required.		Beneficial		
A.3: Removing a travel lane within the Plan area to accommodate on-street bikeways, as proposed in the Bicycle Master Plan, could increase traffic congestion on local roadways.	**Mitigation Measure A.3a:** If the removal of a travel lane would cause an intersection on a proposed bikeway to operate at an unacceptable level of service, the project shall be redesigned to maintain the operating conditions at an acceptable level of service on the affected intersection approach. Otherwise, the City shall prepare further environmental review that identifies significant and unavoidable impacts for which the City must adopt a statement of overriding considerations.		Less than Significant	City of Oakland Transportation Services Division and Planning and Zoning Division	Prior to project completion

1 This column describes the Level of Significance resulting from the implementation of the Plan, together with imposition of all reasonably feasible mitigation measures. For purposes of this Mitigation Monitoring and Reporting Program, Mitigated to Less than Significant means that, under Public Resources Code section 21081(a)(1) and CEQA Guidelines sections 15091(a)(1) and 15092(b)(2)(A), changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment. Mitigated to Less than Significant Other Agency means that, under Public Resources Code section 21081(a)(2) and CEQA Guidelines section 15091(a)(2) and 15092(b)(2)(A), all or part of the mitigation measures are within the responsibility and jurisdiction of another public agency (including situations which require the cooperation of another public agency), and such changes either have been adopted by the other agency or can and should be adopted by such other agency. Significant and Unavoidable means that, under Public Resources Code section 21081(a)(3) and (b), and CEQA Guidelines section 15091(a)(3) and 15092(b)(2)(B) and 15093, no mitigation measures are available.

2 Compliance date, and inspection or field survey dates to be noted in this column by the responsible agency.

OAKLAND BICYCLE MASTER PLAN
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Environmental Impact	Mitigation Measures or Standard Conditions	Condition of Approval Nos.	Resulting Level of Significance[1]	Monitoring Responsibility[2]	Monitoring Timeframe
	Standard Condition A.3b: Implementation of Standard Condition A.1 (Incorporation of all uniformly-applied Standard Conditions).		Less than Significant		
A.4: Removing a travel lane within the Plan area to accommodate on-street bikeways, as proposed in the Bicycle Master Plan, could increase traffic congestion on CMP MTS segments.	**Mitigation Measure A.4a:** If the removal of a travel lane would cause a roadway segment on the Metropolitan Transportation System to operate at an unacceptable volume-to-capacity ratio, the project shall be redesigned to maintain the operating conditions at an acceptable volume-to-capacity ratio on the affected roadway segment. Otherwise, the City shall prepare further environmental review that identifies significant and unavoidable impacts for which the City must adopt a statement of overriding considerations.		Less than Significant	City of Oakland Transportation Services Division and Planning and Zoning Division, Alameda Congestion Management Agency	Prior to project completion
	Standard Condition A.4b: Implementation of Standard Condition A.1 (Incorporation of all uniformly-applied Standard Conditions).		Less than Significant		
A.5: Altering existing roadway configurations in the Plan area to accommodate the Proposed Bikeway Network and support facilities, as proposed in the Bicycle Master Plan, could affect pedestrian facilities.	None required.		Beneficial		
A.6: Altering existing roadway configurations in the Plan area to accommodate the Proposed Bikeway Network, as proposed in the Bicycle Master Plan, could affect existing bikeways.	None required.		Beneficial		
A.7: Altering existing roadway configurations in the Plan area to	**Mitigation Measure A.7a:** Implement Mitigation Measure A.3a (Redesign to		Less Than Significant	City of Oakland Transportation Services Division and Planning	Prior to project completion

OAKLAND BICYCLE MASTER PLAN
MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures or Standard Conditions	Condition of Approval Nos.	Resulting Level of Significance[1]	Monitoring Responsibility[2]	Monitoring Timeframe
accommodate the Proposed Bikeway Network, as proposed in the Bicycle Master Plan, could affect transit service.	maintain acceptable levels of service).			and Zoning Division	
	Mitigation Measure A.7b: Implement Mitigation Measure A.4a (Redesign to maintain acceptable volume-to-capacity ratios).		Less than Significant	City of Oakland Transportation Services Division and Planning and Zoning Division, Alameda Congestion Management Agency	Prior to project completion
	Standard Condition A.7c: Implementation of Standard Condition A.1 (Incorporation of all uniformly-applied Standard Conditions).		Less than Significant		
A.8: Altering existing roadway configurations in the Plan area to accommodate the Proposed Bikeway Network, as proposed in the Bicycle Master Plan, would cause construction impacts.	**Standard Condition A.8:** Prior to commencing any construction or alterations related to the project, the construction contractor shall meet with the Transportation Services Division and other appropriate City of Oakland agencies to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion that may result during construction of this project and other nearby projects that could be simultaneously under construction. Specifically: • The construction contractor shall not block roadways or sidewalks so that adjacent residents or occupants would be adversely affected from getting to and from their respective property. Notify adjacent property owners and public safety personnel regarding when major (temporary) detours and or lane closures will occur due to construction activities. Notification shall occur not less than 48 hours before commencing		Less than Significant		

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Environmental Impact	Mitigation Measures or Standard Conditions	Condition of Approval Nos.	Resulting Level of Significance[1]	Monitoring Responsibility[2]	Monitoring Timeframe
	such activities. • The construction contractor shall locate construction staging areas for materials, equipment, and vehicles in areas as to not impede safe pedestrian and vehicular traffic. • The construction contractor shall identify haul routes for movement of construction vehicles that would minimize impacts on vehicular and pedestrian traffic, circulation and safety. • The construction contractor shall remove trash generated by project construction activity. • The construction contractor shall clearly display contractor contact information pertaining to construction activity, including identification of an on-site complaint manager, for the purpose of tracking any complaints regarding construction activity impacts.				
A.9: Requiring and erecting bicycle parking and support facilities in the Plan area, as proposed in the Bicycle Master Plan, could affect bicycle ridership.	None required.		Beneficial		
A.10: Implementing bicycle education programs, as proposed in the Bicycle Master Plan, could increase bicycle awareness.	None required.		Beneficial		
A.11: Implementing policies, as proposed in the Bicycle Master Plan, could increase bicycling in the City of Oakland.	None required.		Beneficial		

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Environmental Impact	Mitigation Measures or Standard Conditions	Condition of Approval Nos.	Resulting Level of Significance[1]	Monitoring Responsibility[2]	Monitoring Timeframe
A.12: Implementing the Proposed Bikeway Network, as proposed in the Bicycle Master Plan, could cause cumulative impacts.	**Mitigation Measure A.12a:** The City shall integrate proposed bikeway projects into overlapping and concurrent roadway projects such that the construction staging occurs as a single project. Where the integration of such projects is not feasible, the City shall schedule the implementation of the projects to avoid any cumulative impacts to transportation that would be caused by the simultaneous staging of multiple projects.		Less than Significant	City of Oakland Transportation Services Division and Planning and Zoning Division	During construction phase of project
	Standard Condition A.12b: Implementation of Standard Condition A.1 (Incorporation of all uniformly-applied Standard Conditions).		Less than Significant		
B. Air Quality					
B.1: Construction activities associated with the implementation of the Bicycle Master Plan could generate short-term emissions of criteria pollutants.	**Standard Condition B.1:** Dust Control Measures – During all construction activities, applicable dust control measures shall be instituted and maintained during construction to minimize air quality impacts. The measures are consistent with, but are not limited to, the BAAQMD Basic and Enhanced dust control measures recommended for sites larger than 4 acres and include: • Watering all active construction areas at least twice daily to control dust; • Covering stockpiles of debris, soils, or other material if blown by the wind; • Sweeping adjacent public rights		Less than Significant	City of Oakland Building Services Division	During construction phase of project

OAKLAND BICYCLE MASTER PLAN
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Environmental Impact	Mitigation Measures or Standard Conditions	Condition of Approval Nos.	Resulting Level of Significance[1]	Monitoring Responsibility[2]	Monitoring Timeframe
	of way and streets daily if visible soil material or debris is carried onto these areas; • Sweeping daily all paved access roads, parking areas, and staging areas at the construction site; • Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard; • Hydroseed or apply non-toxic soil stabilizers to inactive construction areas; • Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.); • Install sandbags or other erosion control measures to prevent silt runoff onto public roadways; • Replant vegetation in disturbed areas as quickly as possible; • Limit traffic speeds on unpaved roads/driveways to 15 miles per hour; • Install wheel washers for all exiting trucks or wash off the tires or tracks of all trucks and equipment leaving the construction site; • Install wind breaks at the windward sides of the construction areas; and • Suspend excavation and grading activities when wind (as				

OAKLAND BICYCLE MASTER PLAN
MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures or Standard Conditions	Condition of Approval Nos.	Resulting Level of Significance[1]	Monitoring Responsibility[2]	Monitoring Timeframe
	instantaneous gusts) exceed 25 miles per hour. • Perform low- NOx tune-ups on all diesel-powered construction equipment greater than 50 horsepower (no more than 30 days prior to the start of use of that equipment). Periodic tune-ups (every 90 days) should be performed for such equipment used continuously during the construction period.				
B.2: The implementation of proposed bikeways within the Plan area, as proposed in the Bicycle Master Plan, could affect traffic operations and thereby affect emissions at sensitive receptor locations.	None required.		Beneficial		
B.3: Implementing the Proposed Bikeway Network, as proposed in the Bicycle Master Plan, could cause cumulative impacts.	None required.		Less than Significant		

STANDARD CONDITIONS OF APPROVAL (UNIFORMLY APPLIED DEVELOPMENT STANDARDS UNDER CEQA GUIDELINES SECTION 15183)

AIR QUALITY

Asbestos Removal in Soil

Prior to issuance of a demolition, grading, or building permit

To minimize the release of naturally occurring asbestos in the soil during construction, the project applicant shall require the construction contractor to demonstrate compliance with Bay Area Air Quality Management District's (BAAQMD) Asbestos Airborne Toxic Control Measures for Construction, Grading, Quarrying and Surface Mining Operations (implementing CCR section 93105) for activities that disturb the soil, such as grading, etc.

Minimum Requirements where area to be disturbed is 1 acre or less

Construction Grading Operation Requirements	
Administrative	1. No notification required to the BAAQMD office. 2. Notify the Air Pollution Control Officer (APCO) the next business day upon discovery of naturally occurring asbestos, serpentine, or ultramafic rock
Dust Control	1. Vehicle speed ≤ 15 mph 2. Sufficient water applied to the area prior to disturbance to prevent visible emissions from crossing project boundaries. 3. Areas to be graded or excavated kept adequately wetted to prevent visible emissions from crossing project boundaries. 4. Storage piles kept adequately wetted, treated with chemical dust suppressant, or covered when the material is not being added or removed. 5. Equipment must be washed down before moving from the property onto paved roadway. 6. Visible track-out on paved public road must be cleaned using wet sweeping or High Efficiency Particulate Filters (HEPA) filter equipped vacuum device within 24 hours. 7. Implement the preceding dust control measures within 24 hours upon discovery of naturally occurring asbestos, serpentine, or ultramafic rock.

Minimum Requirements where area to be disturbed is More than 1 acre

Construction Grading Operation Requirements	
Administrative	1. Asbestos Dust Mitigation Plan submitted to the District and approved prior to engaging in the any construction or grading operation. 2. Notify the Pollution Control Officer (APCO) next business day upon discovery of naturally asbestos, serpentine, or ultramafic rock. 3. Submit Asbestos Dust Mitigation Plan within 14 days upon discovery of naturally occurring asbestos, serpentine, or ultramafic rock. 4. Report bulk sampling results conducted by the owner/operator to document applicability done at the request of APCO.

Dust Control	1. Vehicle speed ≤ 15 mph 2. Sufficient water applied to the area prior to disturbance to prevent visible emissions from crossing project boundaries. 3. Areas to be graded or excavated kept adequately wetted to prevent visible emissions from crossing project boundaries. 4. Storage piles kept adequately wetted, treated with chemical dust suppressant, or covered when the material is not being added or removed. 5.Storage piles must be stabilized when inactive for more than 7 days by adequately wetting , establishing surface crusting, chemical dust suppressant, covering with tarps or vegetative cover, installation of wind barriers around three sides or open areas, or any measure as effective. 6. Equipment must be washed down before moving from the property onto paved roadway. 7. Track-out prevention device installed (gravel pad, tire shaker, wheel wash system, 50 feet of pavement extending from intersection with paved public road, or other measure as effective. 8. Visible track-out on paved public road must be cleaned using wet sweeping or High Efficiency Particulate Air (HEPA) filter equipped vacuum device within 24 hours. 9. Post project stabilization of disturbed surfaces using vegetative cover, 3" of non- asbestos-containing material, paving, or other measure deemed sufficient to prevent 10 mph winds from causing visible emissions. 10. Implement the preceding dust control measures within 24 hours upon discovery of naturally occurring asbestos, serpentine, or ultramafic rock. 11. Implement provisions of District approved Asbestos Dust Mitigation Plan within 14 days of approval after discovery of naturally occurring asbestos, serpentine, or ultramafic rock.

Dust Control

Prior to issuance of a demolition, grading or building permit

During construction, the project applicant shall require the construction contractor to implement the following measures required as part of Bay Area Air Quality Management District's (BAAQMD) basic and enhanced dust control procedures required for construction sites. These include:

BASIC (Applies to ALL construction sites)

a) Water all active construction areas at least twice daily. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever possible.
b) Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer).
c) Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
d) Sweep daily (with water sweepers using reclaimed water if possible) all paved access roads, parking areas and staging areas at construction sites.
e) Sweep streets (with water sweepers using reclaimed water if possible) at the end of each day if visible soil material is carried onto adjacent paved roads.

ENHANCED (Applies to construction sites greater than 4 acres)

a) All "Basic" controls listed above, plus
b) Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for one month or more).
c) Enclose, cover, water twice daily or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.).

d) Limit traffic speeds on unpaved roads to 15 miles per hour.
e) Install sandbags or other erosion control measures to prevent silt runoff to public roadways
f) Replant vegetation in disturbed areas as quickly as feasible.

ADDITIONAL AS DETERMINED BY CITY STAFF

a) Limit the amount of the disturbed area at any one time, where feasible.
b) Pave all roadways, driveways, sidewalks, etc. as soon as feasible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
c) Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.
d) Designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the BAAQMD prior to the start of construction as well as posted on-site over the duration of construction.
e) Clean off the tires or tracks of all trucks and equipment leaving any unpaved construction areas.
f) Install appropriate wind breaks at the construction site to minimize wind blown dust.

Construction Emissions

Prior to issuance of a demolition, grading or building permit

To minimize construction equipment emissions during construction, the project applicant shall require the construction contractor to:

a) Demonstrate compliance with Bay Area Air Quality Management District (BAAQMD) Regulation 2, Rule 1 (General Requirements) for all portable construction equipment subject to that rule. BAAQMD Regulation 2, Rule 1, requires an authority to construct and permit to operate certain types of portable equipment used for construction purposes (e.g., gasoline or diesel-powered engines used in conjunction with power generation, pumps, compressors, and cranes) unless such equipment complies with all applicable requirements of the "CAPCOA" Portable Equipment Registration Rule" or with all applicable requirements of the Statewide Portable Equipment Registration Program. This exemption is provided in BAAQMD Rule 2-1-105.
b) Perform low- NOx tune-ups on all diesel-powered construction equipment greater than 50 horsepower (no more than 30 days prior to the start of use of that equipment). Periodic tune-ups (every 90 days) should be performed for such equipment used continuously during the construction period.

BIOLOGICAL RESOURCES

CREEK PERMITS

Regulatory Permits and Authorizations

Prior to issuance of a demolition, grading, or building permit within vicinity of the creek

Prior to construction within the vicinity of the creek, the project applicant shall obtain all necessary regulatory permits and authorizations from the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), California Department of Fish and Game, and the City of Oakland, and shall comply with all conditions issued by applicable agencies. Required permit approvals and certifications shall include, but not be limited to the following:

a) U.S. Army Corps of Engineers (Corps): Section 404. Permit approval from the Corps shall be obtained for the placement of dredge or fill material in waters of the U.S., if any, within the interior of the project site, pursuant to Section 404 of the federal Clean Water Act.
b) Regional Walter Quality Control Board (RWQCB): Section 401 Water Quality Certification. Certification that the project will not violate state water quality standards is required before the Corps can issue a 404 permit, above.
c) California Department of Fish and Game (CDFG): Section 1602 Lake and Streambed Alteration Agreement. Work that will alter the bed or bank of a stream requires authorization from CDFG.

Creek Landscaping Plan

Prior to project completion

The project applicant shall develop a final detailed landscaping and irrigation plan for review and approval by the Planning and Zoning Division prepared by a licensed landscape architect or other qualified person. Such a plan shall include a planting schedule, detailing plant types and locations, and a system for temporary irrigation of plantings.

a) Plant and maintain only drought-tolerant plants on the site where appropriate as well as native and riparian plants in and adjacent to riparian corridors. Along the riparian corridor, native plants shall not be disturbed to the maximum extent feasible. Any areas disturbed along the riparian corridor shall be replanted with mature native riparian vegetation and be maintained to ensure survival.
b) All landscaping indicated on the approved landscape plan shall be installed prior to project completion, unless bonded pursuant to the provisions of Section 17.124.50 of the Oakland Planning Code.
c) All landscaping areas shown on the approved plans shall be maintained in neat and safe conditions, and all plants shall be maintained in good growing condition and, whenever necessary replaced with new plant materials to ensure continued compliance with all applicable landscaping requirements. All paving or impervious surfaces shall occur only on approved areas.

Creek Restoration

Prior to project completion

The applicant shall prepare for review and approval by all applicable review and permitting agencies a detailed "Creek Restoration and Mitigation Plan" (CRMP). Such a plan shall include all elements required to recreate a naturalized creek corridor onsite. Specific measures proposed by the project and included in the RMP include, but would not necessarily be limited to, the following:

a) Native riparian vegetation shall be planted to provide bank stabilization, to restore the daylighted reach of the creek, and to provide riparian habitat buffers. The CRMP shall outline what species of native plants shall be planted.
b) Plantings shall include trees and understory plants that are native to the area and that provide both bank stabilization and riparian habitat.
c) Monitoring of the restored areas shall continue for a period of five years after implementation of the restoration planting. The project applicant or qualified designees shall prepare and submit annual monitoring reports to the Army Corps of Engineers, Regional Water Quality Control Board, California Department of Fish and Game, and City of Oakland. The CRMP shall outline monitoring methods and success criteria for each of the monitoring years and at the end of the five-year monitoring period.
d) The CRMP shall provide contingency measures to be implemented in the event one or more success criteria are not met.

e) If required by permits and authorizations for the project, the project applicant shall provide compensatory mitigation for temporary and/or permanent impacts to the Creek. If deemed appropriate by the permitting agencies, mitigation can be provided by a donation of funds for off-site riparian restoration. If required, compensatory mitigation will be provided at a minimum of 1.1:1 ratio.

f) All creek restoration plan elements indicated on the approved CRMP shall be installed onsite within the time period specified, unless bonded in an amount approved by the City that is equal to a contractor estimate of the cost to construct all creek restoration work, (or the remaining uninstalled portions thereof).

Creek Dewatering and Aquatic Life

Prior to the start of and ongoing throughout any in-water construction activity

a) If any dam or other artificial obstruction is constructed, maintained, or placed in operation within the stream channel, ensure that sufficient water is allowed to pass down channel at all times to maintain aquatic life below the dam or other artificial obstruction.

b) The project applicant shall hire a biologist, with all necessary State and Federal permits, to relocate all fish/amphibians within the work site prior to dewatering. Captured fish/amphibians shall be moved to the nearest appropriate site on the stream channel downstream. The biologist/contractor shall check daily for stranded aquatic life as the water level in the dewatering area drops. All reasonable efforts shall be made to capture and move all stranded aquatic life observed in the dewatered areas. Capture methods may include fish landing nets, dip nets, buckets, and by hand. Captured aquatic life shall be released immediately in the nearest appropriate downstream site. This condition does not allow the take or disturbance of any state or federally listed species, or state listed species of special concern.

TREE PERMITS

Tree Removal During Breeding Season

Prior to issuance of a tree removal permit

To the extent feasible, removal of the trees and other vegetation suitable for nesting of raptors shall not occur during the breeding season of March 15 and August 15. If tree removal must occur during the breeding season, all sites shall be surveyed by a qualified biologist to verify the presence or absence of nesting birds or raptors. If the survey indicates that potential presences of nesting birds or raptors, the results would be coordinated with the California Department of Fish and Game (CDFG) and suitable avoidance measures would be developed and implemented. Construction shall observe the CDFG avoidance guidelines which are a minimum 500-foot buffer zone surrounding active raptor nests and a 250-foot buffer zone surrounding nests of other birds. Buffer zones shall remain until young have fledged.

Tree Protection During Construction

Prior to issuance of a demolition, grading, or building permit

Adequate protection shall be provided during the construction period for any trees which are to remain standing. Measures deemed necessary by the Tree Services Division in consideration of the size, species, condition and location of the trees to remain may include any of the following:

a) Before the start of any clearing, excavation, construction or other work on the site, every protected tree deemed to be potentially endangered by said site work shall be securely fenced off at a distance from the base of the tree to be determined by the City Tree Reviewer. Such fences shall remain in place for

duration of all such work. All trees to be removed shall be clearly marked. A scheme shall be established for the removal and disposal of logs, brush, earth and other debris which will avoid injury to any protected tree.

b) Where proposed development or other site work is to encroach upon the protected perimeter of any protected tree, special measures shall be incorporated to allow the roots to breathe and obtain water and nutrients. Any excavation, cutting, filing, or compaction of the existing ground surface within the protected perimeter shall be minimized. No change in existing ground level shall occur within a distance to be determined by the City Tree Reviewer from the base of any protected tree at any time. No burning or use of equipment with an open flame shall occur near or within the protected perimeter of any protected tree.

c) No storage or dumping of oil, gas, chemicals, or other substances that may be harmful to trees shall occur within the distance to be determined by the Tree Reviewer from the base of any protected trees, or any other location on the site from which such substances might enter the protected perimeter. No heavy construction equipment or construction materials shall be operated or stored within a distance from the base of any protected trees to be determined by the tree reviewer. Wires, ropes, or other devices shall not be attached to any protected tree, except as needed for support of the tree. No sign, other than a tag showing the botanical classification, shall be attached to any protected tree.

d) Periodically during construction, the leaves of protected trees shall be thoroughly sprayed with water to prevent buildup of dust and other pollution that would inhibit leaf transpiration.

e) If any damage to a protected tree should occur during or as a result of work on the site, the project applicant shall immediately notify the Public Works Agency of such damage. If, in the professional opinion of the Tree Reviewer, such tree cannot be preserved in a healthy state, the Tree Reviewer shall require replacement of any tree removed with another tree or trees on the same site deemed adequate by the Tree Reviewer to compensate for the loss of the tree that is removed.

f) All debris created as a result of any tree removal work shall be removed by the project applicant from the property within two weeks of debris creation, and such debris shall be properly disposed of by the project applicant in accordance with all applicable laws, ordinances, and regulations.

Tree Removal Permit

Prior to issuance of a demolition, grading, or building permit

Prior to receiving building permits, the project applicant must secure a tree removal permit, and abide by the conditions of that permit, prior to removal of any trees located on the project site or in the public right-of-way adjacent to the project.

Tree Replacement Plantings

Prior to project completion

Replacement plantings shall be required in order to prevent excessive loss of shade, erosion control, groundwater replenishment, visual screening and wildlife habitat in accordance with the following criteria:

a) No tree replacement shall be required for the removal of nonnative species, for the removal of trees which is required for the benefit of remaining trees, or where insufficient planting area exists for a mature tree of the species being considered.

b) Replacement tree species shall consist of Sequoia sempervirens (Coast Redwood), Quercus agrifolia (Coast Live Oak), Ancutus merciesii (Madrone), Aesculus californica (California Buckeye) or Umbelluiana californica (California Bay Laurel).

c) Replacement trees shall be at least of twenty-four (24) inch box size, unless a smaller size is recommended by the arborist, except that three fifteen (15) gallon size trees may be substituted for each twenty-four (24) inch box size tree where appropriate.
d) Minimum planting areas must be available on site as follows:
    1. For Sequoia sempervirens, three hundred fifteen square feet per tree;
    2. For all other species listed in #2 above, seven hundred (700) square feet per tree.
e) In the event that replacement trees are required but cannot be planted due to site constraints, an in lieu fee as determined by the master fee schedule of the city may be substituted for required replacement plantings, with all such revenues applied toward tree planting in city parks, streets and medians.
f) Plantings shall be installed prior to project completion, subject to seasonal constraints, and shall be maintained by the project applicant until established. The Tree Reviewer may require a landscape plan showing the replacement planting and the method of irrigation. Any replacement planting which fails to become established within one year of planting shall be replanted at the project applicant's expense.

WHIPSNAKE

Whipsnake Habitat, Biological Monitor.
Prior to issuance of a demolition, grading, or building permit and ongoing throughout demolition, grading, and/or construction

The project applicant shall hire an on-site biological monitor who is qualified to identify Alameda Whipsnakes. The on-site biological monitor shall instruct the project superintendent and the construction crews (primarily the clearing, demolition and foundation crews) of the potential presence, status and identification of Alameda Whipsnakes. The biological monitor shall also provide information on the steps of take if a whipsnake is seen on the project site, including who to contact, to ensure that whipsnakes are not harmed or killed, as regulation by the federal Endangered Species Act.

Whipsnake Habitat, Placement of Debris
Prior to issuance of a demolition, grading, or building permit and throughout construction
The project applicant shall ensure that the placement of construction debris is limited to the area immediate adjacent to the foundation of the proposed buildings or and to the area between the foundation and the street. Install flexible construction fencing at the limit of work line (approximately ten feet beyond the foundation of the proposed building other than in the direction of the street). Such construction fencing shall limit the placement of construction materials and construction debris to inside the fencing.

Whipsnake Habitat, Barrier Fence
Prior to issuance of a demolition, grading, or building permit and throughout construction
The project applicant shall install a solid fence along the real limit of construction line, and for a distance (to be determined by a qualified wildlife biologist based on the specific conditions of each project) perpendicular to the real line, to prevent whipsnakes from entering the work site.
The snake barrier shall be constructed as follows and shall remain in place throughout the entire construction period:

a) Plywood sheets at least three feet in height;
b) Buried four foot, six inches into the ground
c) Soil back-filled against the plywood fence to create a solid barrier at the ground;

d) Plywood sheets maintained in an upright position with wooden or masonry stakes;
e) Ends of each plywood sheet overlapped to ensure a continuous barrier.

Whipsnake Habitat, Downsloping Lots near
Prior to issuance of a demolition, grading, or building permit and throughout construction
The project applicant shall install erosion control devices, such as hay bales, at the downhill limit of construction line to prevent rocks and soil from moving downhill.

CULTURAL RESOURCES

Archaeological Resources
Ongoing throughout demolition, grading, and/or construction
Pursuant to CEQA Guidelines 15064.5 (f), "provisions for historical or unique archaeological resources accidentally discovered during construction" should be instituted. Therefore, in the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant and/or lead agency shall consult with a qualified archaeologist or paleontologist to assess the significance of the find. If any find is determined to be significant, representatives of the project proponent and/or lead agency and the qualified archaeologist would meet to determine the appropriate avoidance measures or other appropriate mitigation, with the ultimate determination to be made by the City of Oakland. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards.

In considering any suggested mitigation proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique archaeological resources, the project applicant shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for historical resources or unique archaeological resources is carried out.

Should an archaeological artifact or feature be discovered on-site during project construction, all activities within a 50-foot radius of the find would be halted until the findings can be fully investigated by a qualified archaeologist to evaluate the find and assess the significance of the find according to the CEQA definition of a historical or unique archaeological resource. If the deposit is determined to be significant, the project applicant and the qualified archaeologist shall meet to determine the appropriate avoidance measures or other appropriate mitigation, subject to approval by the City of Oakland, which shall assure implementation of appropriate mitigation measures recommended by the archaeologist. Should archaeologically-significant materials be recovered, the qualified archaeologist would recommend appropriate analysis and treatment, and would prepare a report on the findings for submittal to the Northwest Information Center.

Human Remains
Ongoing throughout demolition, grading, and/or construction
In the event that human skeletal remains are uncovered at the project site during construction or ground-breaking activities, all work shall immediately halt and the Alameda County Coroner shall be contacted to evaluate the remains, and following the procedures and protocols pursuant to Section 15064.5 (e)(1) of the

CEQA Guidelines. If the County Coroner determines that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, and all excavation and site preparation activities shall cease within a 50-foot radius of the find until appropriate arrangements are made. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance and avoidance measures (if applicable) shall be completed expeditiously.

Paleontological Resources
Ongoing throughout demolition, grading, and/or construction

In the event of an unanticipated discovery of a paleontological resource during construction, excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist (per Society of Vertebrate Paleontology standards (SVP 1995,1996)). The qualified paleontologist shall document the discovery as needed, evaluate the potential resource, and assess the significance of the find under the criteria set forth in Section 15064.5 of the CEQA Guidelines. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the City determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the project on the qualities that make the resource important, and such plan shall be implemented. The plan shall be submitted to the City for review and approval.

GEOLOGY, SOILS AND SEISMICTITY

Geotechnical Report
Prior to issuance of a demolition, grading, or building permit

A site-specific design level geotechnical investigation for each construction site within the project area shall be required as part if this project. Specifically:

a) Each investigation shall include an analysis of expected ground motions at the site from known active faults. The analyses shall be accordance with applicable City ordinances and polices, and consistent with the most recent version of the California Building Code, which requires structural design that can accommodate ground accelerations expected from known active faults.
b) The investigations shall determine final design parameters for the walls, foundations, foundation slabs, and surrounding related improvements (utilities, roadways, parking lots, and sidewalks).
c) The investigations shall be reviewed and approved by a registered geotechnical engineer. All recommendations by the project engineer, geotechnical engineer, will be included in the final design, as approved by the City of Oakland.
d) Recommendations that are applicable to foundation design, earthwork, and site preparation that were prepared prior to or during the projects design phase, shall be incorporated in the project.
e) Final seismic considerations for the site shall be submitted to and approved by the City of Oakland Building Services Division prior to commencement of the project.

HAZARDS AND HAZARDOUS MATERIALS

Phase I and/or Phase II Reports
Prior to issuance of a demolition, grading, or building permit

Prior to issuance of demolition, grading, or building permits the project applicant shall submit a Phase 1 and/or Phase II report for the existing buildings to determine if remediation of contaminated soil and groundwater are identified on the site. The Director of City Planning or designee shall review and provide a determination on the completeness of the reports.

Phase I and/or Phase II Remediation

Prior to issuance of a demolition, grading, or building permit

If the Phase I and/or Phase II reports indicate that remediation is required, the project applicant must submit the following:

a) The project applicant shall ensure that environmental assessment and remediation would either be performed under the oversight of the Alameda County Department of Environmental Health (ACDEH) or other agencies (e.g. RWQCB and DTSC), or be conducted by qualified professionals with experience in soil and groundwater contamination remediation. In cases where regulatory involvement is not necessary, soil and groundwater removal and disposal would still occur to mitigate the potential hazards that could result from removal of soil and/or groundwater during construction.

b) The project applicant shall submit all applicable documentation and plans required by the Regional Water Quality Control Board, the Alameda County Public Health Department, and the City's Fire Department, Office of Emergency Services, regarding remediation of the contaminated soil and groundwater identified on the site. These documents and plans shall be submitted to the Planning and Zoning Division, and shall demonstrate to the satisfaction of each agency with jurisdiction that all applicable standards and regulations have been met for the construction and site work to be undertaken pursuant to the permit.

c) The project applicant submit a Soil Management Plan (including all applicable documentation and plans) for review and approval by the appropriate agency, which shall be prepared to outline required procedures for handling and disposing impacted soil. All disposal and transportation of contaminated soil shall be done in accordance with state and federal agencies and under federal ((Resource Conservation and Recovery Act of 1976) RCRA) and state laws. All contaminated soil determined to be hazardous or non-hazardous waste must be adequately profiled for acceptable disposal before it can be removed from the site. The project applicant shall ensure that impacted soil is handled in accordance with the approved Soil Management Plan.

d) Groundwater pumped from the subsurface would be contained onsite prior to treatment and disposal to ensure environmental and health issues are resolved pursuant to oversight agencies. Engineering controls shall be utilized, which include impermeable barriers to prohibit groundwater and vapor intrusion into the building.

e) Written verification to the Planning and Zoning Division that the appropriate State, Federal or County authorities including but not limited to the Regional Water Quality Control Board and the Alameda County Public Health Department have granted all required clearances and confirmed that all applicable standards, regulations, and conditions are in compliance, for all previous contamination at the site.

f) The project applicant shall provide evidence from the City's Fire Department, Office of Emergency Services, indicating compliance with the City of Oakland Hazardous Material Assessment and Reporting Program, pursuant to City Ordinance No. 12323.

Prior to issuance of any demolition, grading or building permits, the project applicant shall demonstrate to the satisfaction of the Office of Fire Department, Office of Emergency Services, that the site has been investigated for the presence of lead and does not contain hazardous levels of lead.

Handling Misuse

Prior to commencement of demolition, grading, or construction

The project applicant and construction contractor shall ensure that construction best management practices are implemented as part of construction to minimize the potential negative effects to groundwater and soils. These shall include the following:

a) Follow manufacture's recommendations on use, storage, and disposal of chemical products used in construction;
b) Avoid overtopping construction equipment fuel gas tanks;
c) During routine maintenance of construction equipment, properly contain and remove grease and oils;
d) Properly dispose of discarded containers of fuels and other chemicals.

Fire Safety

Prior to and ongoing throughout demolition, grading, and/or construction

The project applicant and construction contractor will ensure that during project construction, all construction vehicles and equipment will be fitted with spark arrestors to minimize accidental ignition of dry construction debris and surrounding dry vegetation.

Emergency Preparedness and Evacuation Plan

Prior to issuance of any building permit

The applicant shall submit for review and approval by the Planning and Zoning Division, Fire Services, and any other relevant City departments, an Emergency Preparedness and Evacuation Plan for the proposed project.

HYDROLOGY

EROSION & SEDIMENTATION CONTROL DURING CONSTRUCTION

Erosion and Sedimentation Control Plan [when grading permit required]

Prior to any grading activities

The project applicant shall obtain approval from the Building Services Division of a grading permit if required by the Oakland Grading Regulations pursuant to Section 15.04.780 of the Oakland Municipal Code. The grading permit application shall include an erosion and sedimentation control plan. The erosion and sedimentation control plan shall include all necessary measures to be taken to prevent excessive stormwater runoff or carrying by stormwater runoff of solid materials on to lands of adjacent property owners, public streets, or to creeks as a result of conditions created by grading operations. The plan shall include, but not be limited to, such measures as short-term erosion control planting, waterproof slope covering, check dams, interceptor ditches, benches, storm drains, dissipation structures, diversion dikes, retarding berms and barriers, devices to trap, store and filter out sediment, and stormwater retention basins. Off-site work by the project applicant may be necessary. The project applicant shall provide any off-site permission or easements necessary to present written proof thereof to the Public Works Agency. There shall be a clear notation that the plan is subject to changes as changing conditions occur. Calculations of anticipated stormwater runoff and sediment volumes shall be included, if required by the Director of Development. The plan shall specify that, after construction is complete, the project applicant shall ensure that the storm drain system shall be inspected and that the project applicant shall clear the system of any debris or sediment.

Ongoing throughout grading and construction activities

The project applicant shall implement the approved erosion and sedimentation plan. No grading shall occur during the wet weather season (October 15 through April 15) unless specifically authorized in writing by the Building Services Division.

Erosion and Sedimentation Control [when no grading permit required]

Ongoing throughout demolition grading, and/or construction activities

Pursuant to Chapter 13.16 of the Oakland Municipal Code, the project applicant shall implement Best Management Practices (BMPs) to reduce erosion, sedimentation, and water quality impacts during construction to the maximum extent practicable. At a minimum, the project applicant shall provide filter materials at nearby catch basins to prevent any debris and dirt from flowing into the city's storm drain system.

Stormwater Pollution Prevention Plan (SWPPP)

Prior to and ongoing throughout demolition, grading, and/or construction activities

For projects that disturb one (1) acre or more of surface area, the project applicant must obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the State Water Resources Control Board (SWRCB). The project applicant must file a notice of intent (NOI) with the SWRCB. The project applicant will be required to prepare a stormwater pollution prevention plan (SWPPP). At a minimum, the SWPPP shall include a description of construction materials, practices, and equipment storage and maintenance; a list of pollutants likely to contact stormwater; site-specific erosion and sedimentation control practices; a list of provisions to eliminate or reduce discharge of materials to stormwater; Best Management Practices (BMPs), and an inspection and monitoring program. Prior to the issuance of any construction-related permits, the project applicant shall submit a copy of the SWPPP and evidence of approval of the SWPPP by the SWRCB to the Building Services Division. Implementation of the SWPPP shall start with the commencement of construction and continue though the completion of the project. After construction is completed, the project applicant shall submit a notice of termination to the SWRCB.

POST-CONSTRUCTION STORMWATER MANAGEMENT

*[The following condition of approval should be applied to **all** **hillside** projects]*

Drainage Plan

Prior to construction

The project drawings shall contain a drainage plan to be reviewed and approved by the Building Services Division. The drainage plan shall include measures to reduce the post-construction volume and velocity of stormwater runoff to the maximum extent practicable. Stormwater runoff shall not be augmented to adjacent properties or creeks.

*[The following two conditions of approval should be applied to **all** projects except projects requiring on-site stormwater treatment (see below)]*

Site Design Measures for Post-Construction Stormwater Pollution Management

Prior to construction

The project drawings shall contain a final site plan to be reviewed and approved by the Planning and Zoning Division. The final site plan shall incorporate appropriate site design measures to manage stormwater runoff

and minimize impacts to water quality after the construction of the project. These measures may include, but are not limited to, the following:

- Minimize impervious surfaces, especially directly connected impervious surfaces;
- Utilize permeable paving in place of impervious paving where appropriate;
- Preserve quality open space; and
- Establish vegetated buffer areas.

The approved plan shall be implemented and the site design measures shown on the plan shall be permanently maintained.

Source Control Measures to Limit Stormwater Pollution

Prior to construction

The applicant shall implement and maintain all structural source control measures imposed by the Chief of Building Services to limit the generation, discharge, and runoff of stormwater pollution.

Ongoing

The applicant, or his or her successor, shall implement all operational Best Management Practices (BMPs) imposed by the Chief of Building Services to limit the generation, discharge, and runoff of stormwater pollution.

[The following two conditions of approval should be applied to the following projects requiring on-site stormwater treatment:

- *All applications for a zoning permit (or other planning-related permit) not deemed complete as of February 15, 2005 that create or replace one acre or more of impervious surface area; or*
- *All applications for a zoning permit (or other planning-related permit) not deemed complete as of August 15, 2006 that create or replace 10,000 square feet or more of impervious surface area*

***EXCEPT**, these conditions do not apply to the following projects):*

1) Single-family dwellings that are not part of larger multi-dwelling developments;

2) Sidewalks, bicycle lanes, trails, bridge accessories, guardrails, and landscape features associated with a street;

3) Routine maintenance and repair of existing impervious surfaces, including roof and pavement resurfacing and road pavement structural section rehabilitation work within the existing pavement footprint; and

4) Reconstruction work within an existing public street right-of-way where both sides of the right-of-way are already developed.]

Post-Construction Stormwater Pollution Management Plan

Prior to construction

The applicant shall comply with the requirements of Provision C.3 of the National Pollutant Discharge Elimination System (NPDES) permit issued to the Alameda Countywide Clean Water Program. The applicant shall submit with the application for a building permit (or other construction-related permit) a completed Stormwater Supplemental Form for the Building Services Division. The project drawings submitted for the building permit (or other construction-related permit) shall contain a stormwater pollution management plan, for review and approval by the City, to limit the discharge of pollutants in stormwater after construction of the project to the maximum extent practicable. The post-construction stormwater pollution management plan shall include and identify the following:

- All proposed impervious surface on the site;
- Anticipated directional flows of on-site stormwater runoff;
- Site design measures to reduce the amount of impervious surface area and directly connected impervious surfaces;

- Source control measures to limit the potential for stormwater pollution; and
- Stormwater treatment measures to remove pollutants from stormwater runoff.

The following additional information shall be submitted with the post-construction stormwater pollution management plan:

- Detailed hydraulic sizing calculations for each stormwater treatment measure proposed; and
- Pollutant removal information demonstrating that any proposed manufactured/mechanical (i.e., non-landscape-based) stormwater treatment measure, when not used in combination with a landscape-based treatment measure, is capable or removing the range of pollutants typically removed by landscape-based treatment measures.

All proposed stormwater treatment measures shall incorporate appropriate planting materials for stormwater treatment (for landscape-based treatment measures) and shall be designed with considerations for vector/mosquito control. Proposed planting materials for all proposed landscape-based stormwater treatment measures shall be included on the landscape and irrigation plan for the project. The applicant is not required to include on-site stormwater treatment measures in the post-construction stormwater pollution management plan if he or she secures approval from the Planning and Zoning Division of a proposal that demonstrates compliance with the requirements of the City's Alternative Compliance Program.

Prior to project completion

The applicant shall implement the approved stormwater pollution management plan.

Maintenance Agreement for Stormwater Treatment Measures

Prior to project completion

For projects incorporating stormwater treatment measures, the applicant shall enter into the "Standard City of Oakland Stormwater Treatment Measures Maintenance Agreement," in accordance with Provision C.3.e of the NPDES permit, which provides, in part, for the following:

- The applicant accepting responsibility for the adequate installation/construction, operation, maintenance, inspection, and reporting of any on-site stormwater treatment measures being incorporated into the project until the responsibility is legally transferred to another entity; and
- Legal access to the on-site stormwater treatment measures for representatives of the City, the local vector control district, and staff of the Regional Water Quality Control Board, San Francisco Region, for the purpose of verifying the implementation, operation, and maintenance of the on-site stormwater treatment measures and to take corrective action if necessary. The agreement shall be recorded at the County Recorder's Office at the applicant's expense.

CREEK PROTECTION PERMIT

Erosion and Sedimentation Control Measures

Prior to construction

The project applicant shall submit an erosion and sedimentation control plan for review and approval by the City.

BASIC (Applies to ALL construction sites)

a) To ensure that sediment does not flow into the creek and/or storm drains, the project applicant shall install silt fencing (such as sandbags, filter fabric, silt curtains, etc.) oriented parallel to the contours of the slope (at a constant elevation)
b) In accordance with an approved erosion control plan, the project applicant shall implement mechanical and vegetative measures to reduce erosion and sedimentation, including appropriate seasonal maintenance. One hundred (100) percent degradable erosion control fabric shall be installed on all graded slopes to protect and stabilize the slopes during construction and before

permanent vegetation gets established. All graded areas shall be temporarily protected from erosion by seeding with fast growing annual species.

c) All erosion and sedimentation control measures implemented during construction activities, as well as construction site and materials management shall be in strict accordance with the control standards listed in the latest edition of the Erosion and Sediment Control Field Manual published by the Regional Water Quality Board (RWQB).

ENHANCED

a) Temporary fencing is required and shall be placed along both sides of the creek at the maximum practical distance from the creek centerline. This area shall not be disturbed during construction without prior approval of the Planning and Zoning Division.

b) A qualified geotechnical engineer and/or environmental consultant shall be retained and paid for by the project applicant to make site visits during all grading activities; and as a follow-up, submit to the Building Services Division a letter certifying that the erosion and sedimentation control measures set forth in the Creek Protection Permit submittal material have been instituted during the grading activities.

c) All erosion and sedimentation control measures shall be monitored regularly by the project applicant. The City may require erosion and sedimentation control measures to be inspected by a qualified environmental consultant (paid for by the project applicant) during or after rain events. If measures are insufficient to control sedimentation and erosion then the project applicant shall develop and implement additional and more effective measures immediately.

Construction Activities Adjacent to Creeks

Ongoing throughout demolition, grading, and/or construction activities

All work shall incorporate all applicable Best Management Practices (BMPs) for the construction industry, and as outlined in the Alameda Clean Water Program pamphlets, including BMPs for dust, erosion and sedimentation abatement per Chapter 15.04 of the Oakland Municipal Code. The measures shall include, but are not limited to, the following:

a) On sloped properties, the downhill end of the construction area must be protected with silt curtains and hay bales oriented parallel to the contour of the slope (at a constant elevation) to prevent erosion to the creek.

b) All work in or near creek channels must be performed with hand tools and by a minimum number of people. Immediately upon completion of this work, soil must be repacked and native vegetation planted.

c) Minimize the removal of natural vegetation or ground cover from the site in order to minimize the potential for erosion and sedimentation problems. Maximize the replanting of the area with native vegetation as soon as possible. All bare slopes must be covered with staked tarps when rain is occurring or is expected.

d) Install filter materials (such as sandbags, filter fabric, etc.) at the storm drain inlets nearest to the creek side of the project site prior to the start of the wet weather season (October 15); site dewatering activities; street washing activities; saw cutting asphalt or concrete; and in order to retain any debris flowing into the City storm drain system. Filter materials shall be maintained and/or replaced as necessary to ensure effectiveness and prevent street flooding.

e) Ensure that concrete/granite supply trucks or concrete/plaster finishing operations do not discharge wash water into the creek, street gutters, or storm drains.

f) Direct and locate tool and equipment cleaning so that wash water does not discharge into the creek.

g) Create a contained and covered area on the site for storage of bags of cement, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the storm drain system by the wind or in the event of a material spill. No hazardous waste material shall be stored on site.

h) Gather all construction debris on a regular basis and place them in a dumpster or other container which is emptied or removed on a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to stormwater pollution.

i) Remove all dirt, gravel, refuse, and green waste from the sidewalk, street pavement, and storm drain system adjoining the project site. During wet weather, avoid driving vehicles off paved areas and other outdoor work.

j) Broom sweep the street pavement adjoining the project site on a daily basis. Caked-on mud or dirt shall be scraped from these areas before sweeping. At the end of each workday, the entire site must be cleaned and secured against potential erosion, dumping, or discharge to the creek.

*[The following condition of approval should be applied to **all** creek protection permit projects requiring creek protection plans –generally Category III and IV permits]*

Creek Protection Plan

Prior to and ongoing throughout demolition, grading, and/or construction activities

The approved creek protection plan shall be included in the project drawings submitted for a building permit (or other construction-related permit). The project applicant shall implement the creek protection plan to minimize potential impacts to the creek during and after construction of the project. All stormwater system outfalls shall include energy dissipation that slows the velocity of the water at the point of outflow to maximize infiltration and minimize erosion. The project shall not result in a substantial increase in stormwater runoff volume or velocity to the creek or storm drains.

Dewatering and Diversion for Creekside Properties

Prior to the start of any in-water construction activities

The project applicant shall develop and implement a detailed dewatering and diversion plan for review and approval by the Building Services Division. All proposed dewatering and diversion practices shall be consistent with the requirements of the Streambed Alteration Agreement issued by the California Department of Fish and Game.

c) If installing any dewatering or diversion device(s), ensure that construction and operation of the devices meet the standards in the latest edition of the Erosion and Sediment Control Field Manual published by the Regional Water Quality Control Board (RWQCB).

d) Construct coffer dams and water diversion system of a non-erodable material which will cause little or siltation. Maintain coffer dams and the water diversion system in place and functional throughout the construction period. If the coffer dams or water diversion system fail, repair immediately based on the recommendations of a qualified environmental consultant. Remove devices only after construction is complete and the site stabilized.

Pass pumped water through a sediment settling device before returning the water to the stream channel. Provide velocity dissipation measures at the outfall to prevent erosion.

CREEK PERMIT

Erosion and Sediment Control Measures
Prior to issuance of a demolition, grading, or construction permit
The project applicant shall submit an Erosion and Sediment Control Plan.

BASIC (Applies to ALL construction sites)

d) To ensure that sediment does not flow into the creek and/or storm drains, the project applicant shall install silt fencing (such as sandbags, filter fabric, silt curtains, etc.) oriented parallel to the contours of the slope (at a constant elevation)
e) In accordance with an approved erosion control plan, the project applicant shall implement mechanical and vegetative measures to reduce erosion and sedimentation, including appropriate seasonal maintenance. One hundred (100) percent degradable erosion control fabric shall be installed on all graded slopes to protect and stabilize the slopes during construction and before permanent vegetation gets established. All graded areas shall be temporarily protected from erosion by seeding with fast growing annual species.
f) All erosion and sedimentation control measures implemented during construction activities, as well as construction site and materials management shall be in strict accordance with the control standards listed in the latest edition of the Erosion and Sediment Control Field Manual published by the Regional Water Quality Board (RWQB).

ENHANCED

d) Temporary fencing is required and shall be placed along both sides of the creek at the maximum practical distance from the creek centerline. This area shall not be disturbed during construction without prior approval of the Planning Department.
e) A qualified geotechnical engineer and/or environmental consultant shall be retained and paid for by the project applicant to make site visits during all grading activities; and as a follow-up, submit to the Building Services Division a letter certifying that the erosion and sedimentation control measures set forth in the Creek Protection Permit submittal material have been instituted during the grading activities.
f) All erosion and sedimentation control measures shall be monitored on a weekly basis and on a daily basis by a qualified environmental consultant paid for by the project applicant during rain events. The monitoring log shall be located on the jobsite and available for review. If measures are insufficient to control sediment and erosion than the project applicant shall develop and implement additional and more effective measures immediately.

Grading Permit
Ongoing throughout grading
No work shall occur without a valid Grading Permit issued by the Building Services Division. No grading shall occur within the period of October 15 through April 15 unless specifically authorized in writing by the Engineering Services Division.

Construction Activities Adjacent to Creeks
Ongoing throughout demolition, grading, and/or construction
All work shall apply the "Best Management Practices (BMPS) for the construction industry, and as outlined in the Alameda Clean Water Program pamphlets – including BMP's for dust, erosion and sedimentation

abatement per Section 15.04 of the Oakland Municipal Code. The measures shall include, but are not limited to the following:

k) On sloped properties, the downhill end of the construction area must be protected with silt curtains and hay bales oriented parallel to the contour of the slope (at a constant elevation) to prevent erosion to the creek.

l) All work in or near creek channels must be performed with hand tools and by a minimum number of people. Immediately upon completion of this work, soil must be repacked and native vegetation planted.

m) Minimize the removal of natural vegetation or ground cover from the site in order to minimize the potential for erosion and sedimentation problems. Maximize the replanting of the area with native vegetation as soon as possible. All bare slopes must be covered with staked tarps when rain is occurring or is expected.

n) Install filter materials (such as sandbags, filter fabric, etc.) at the storm drain inlets nearest to the creek side of the project site prior to the start of the rainy season (October 15); site dewatering activities; street washing activities; saw cutting asphalt or concrete; and in order to retain any debris flowing into the City storm drain system. Filter materials shall be maintained and/or replaced as necessary to ensure effectiveness and prevent street flooding.

o) Ensure that concrete/granite supply trucks or concrete/plaster finishing operations do not discharge wash water into the creek, street gutters, or storm drains.

p) Direct and locate tool and equipment cleaning so that wash water does not discharge into the creek.

q) Create a contained and covered area on the site for storage of bags of cement, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the storm drain system by the wind or in the event of a material spill. No hazardous waste material shall be stored on site.

r) Gather all construction debris on a regular basis and place them in a dumpster or other container which is emptied or removed on a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to storm water pollution.

s) Remove all dirt, gravel, refuse, and green waste from the sidewalk, street pavement, and storm drain system adjoining the project site. During wet weather, avoid driving vehicles off paved areas and other outdoor work.

t) Broom sweep the street pavement adjoining the project site on a daily basis. Caked-on mud or dirt shall be scraped from these areas before sweeping. At the end of each workday, the entire site must be cleaned and secured against potential erosion, dumping, or discharge to the creek.

Storm Water Management including per the Creek Protection Plan and/or SWPPP

Ongoing throughout demolition, grading, and/or construction

Per the Creek Protection Plan and/or the Storm Water Pollution Prevention Plan submitted by the project applicant, all storm water system outfalls shall include energy dissipation that slows the velocity of the water at the point of outflow to maximize infiltration and minimize erosion. The project shall not result in a substantial increase in storm water runoff volume or velocity to the creek or storm drains. The project shall not result in a substantial increase in pollutants (including automotive drippings, sediment, leaves, toxics, etc.) both during construction and after the project is complete.

Dewatering and Diversion for Creekside Properties

Prior to the start of any in-water construction activities

The project applicant shall develop and implement a detailed Dewatering and Diversion Plan for review and approval by the Building Services Division. All proposed dewatering and diversion practices shall be consistent with the requirements of the Streambed Alteration Agreement issued by the California Department of Fish and Game.

e) If installing any dewatering or diversion device(s), ensure that construction and operation of the devices meet the standards in the latest edition of the Erosion and Sediment Control Field Manual published by the Regional Water Quality Control Board (RWQCB).

f) Construct coffer dams and water diversion system of a non-erodable material which will cause little or no siltation. Maintain coffer dams and the water diversion system in place and functional throughout the construction period. If the coffer dams or water diversion system fail, repair immediately based on the recommendations of a qualified environmental consultant. Remove devices only after construction is complete and the site stabilized.

g) Pass pumped water through a sediment settling device before returning the water to the stream channel. Provide velocity dissipation measures at the outfall to prevent erosion.

NOISE

Days/Hours of Construction Operation

Ongoing throughout demolition, grading, and/or construction

The project applicant shall require construction contractors to limit standard construction activities as required by the City Building Department.

a) Such activities are limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday, with pile driving and/or other extreme noise generating activities greater than 90 dBA limited to between 8:00 a.m. and 4:00 p.m. Monday through Friday.

b) Any construction activity proposed to occur outside of the standard hours of 7:00 am to 7:00 pm Monday through Friday for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened and such construction activities shall only be allowed with the prior written authorization of the Building Services Division.

c) Construction activity shall not occur on Saturdays, with the following possible exceptions:

I. Prior to the building being enclosed, requests for Saturday construction for special activities (such as concrete pouring which may require more continuous amounts of time), shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened. Such construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division. No extreme noise generating activities shall be allowed on Saturdays, with no exceptions.

II. After the building is enclosed, requests for Saturday construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division, and only then within the interior of the building with the doors and windows closed.

d) No extreme noise generating activities shall be allowed on Saturdays, with no exceptions.

e) No construction activity shall take place on Sundays or Federal holidays.

f) For clarification, construction activities include but are not limited to: truck idling, moving equipment (including trucks, elevators, etc) or materials, deliveries, and construction meetings held on-site in a non-enclosed area.

Noise Control

Ongoing throughout demolition, grading, and/or construction

To reduce noise impacts due to construction, the project applicant shall require construction contractors to implement a site-specific noise reduction program, subject to city review and approval, which includes the following measures:

a) Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible).

b) Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible.

c) Stationary noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or other measures to the extent feasible.

d) If feasible, the noisiest phases of construction (such as pile driving) shall be limited to less than 10 days at a time.

Noise Complaint Procedures

Ongoing throughout demolition, grading, and/or construction

Prior to the issuance of each building permit, along with the submission of construction documents, the project applicant shall submit to the City Building Department a list of measures to respond to and track complaints pertaining to construction noise. These measures shall include:

a) A procedure and phone numbers for notifying the City Building Services Division staff and Oakland Police Department; (during regular construction hours and off-hours);

b) A sign posted on-site pertaining with permitted construction days and hours and complaint procedures and who to notify in the event of a problem. The sign shall also include a listing of both the City and construction contractor's telephone numbers (during regular construction hours and off-hours);

c) The designation of an on-site construction complaint and enforcement manager for the project;

d) Notification of neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of pile-driving activities about the estimated duration of the activity; and

e) A preconstruction meeting shall be held with the job inspectors and the general contractor/on-site project manager to confirm that noise mitigation and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.

TRAFFIC / TRANSPORTATION

Construction Traffic and Parking
Prior to the issuance of a demolition, grading or building permit

The project applicant and construction contractor shall meet with the Transportation Services Division of the Public Works Agency and other appropriate City of Oakland agencies to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of this project and other nearby projects that could be simultaneously under construction. The project applicant shall develop a construction management plan for review and approval by the City Transportation Services Division. The plan shall include at least the following items and requirements:

a) A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes.

b) Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur.

c) Location of construction staging areas for materials, equipment, and vehicles (must be located on the project site).

d) A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager. The manager shall determine the cause of the complaints and shall take prompt action to correct the problem. The Planning and Zoning Division shall be informed who the Manager is prior to the issuance of the first permit issued by Building Services.

e) Provision for accommodation of pedestrian flow.

f) Provision for parking management and spaces for all construction workers to ensure that construction workers do not park in on-street spaces.

g) Identification of haul routes for movement of construction vehicles that would minimize impacts on vehicular and pedestrian traffic, circulation and safety; and provision for monitoring surface streets used for truck haul routes so that any damage and debris or loss of expected life to the public street attributable to the haul trucks can be identified and corrected by the project applicant.

UTILITIES AND SERVICES SYSTEMS

Waste Reduction and Recycling
Prior to issuance of demolition, grading, or building permit

The project applicant will submit a demolition/construction waste diversion plan and operational waste reduction plan for review and approval by the Public Works Agency. The plan will specify the methods by which the development will make a good faith effort to divert 50% of the demolition/construction waste generated by the proposed project from landfill disposal. After approval of the plan, the project applicant will implement the plan. The operational diversion plan will specify the methods by which the development will

make a good faith effort to divert 50% of the solid waste generated by operation of the proposed project from landfill disposal. After approval of the plan, the project applicant will implement the plan. Contact the City of Oakland Environmental Services Division of Public Works at (510) 238-7283 for information.

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