

4 . Background Conditions

This chapter addresses BTA requirement (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; and (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."

LAND USE AND SETTLEMENT PATTERNS

The city of Richmond is located on the western edge of Contra Costa County. It was incorporated in 1905 and has a population of approximately 104,000 and a land area of 30.4 square miles, making it the second largest city in Contra Costa on both counts. Like much of the

rest of the Bay Area, Richmond has Mediterranean climate with mild year round temperatures and rain free summers.

The City's land area is essentially divided into three sections, with its northern portions separated from central and south Richmond by the City of San Pablo and a relatively large pocket of unincorporated Contra Costa County. A third portion is located in the El Sobrante Valley on the inland side of the coastal hill range to the east. This eastern portion is mostly hilly while the other two portions are generally flat, with the exception of Point Richmond and the San Pablo peninsula, the Hilltop district in the north and portions of the Richmond Annex (south). San Pablo and San Francisco Bays surround Richmond along the northwest, west and south, giving it the longest shoreline of any city in the Bay Area.

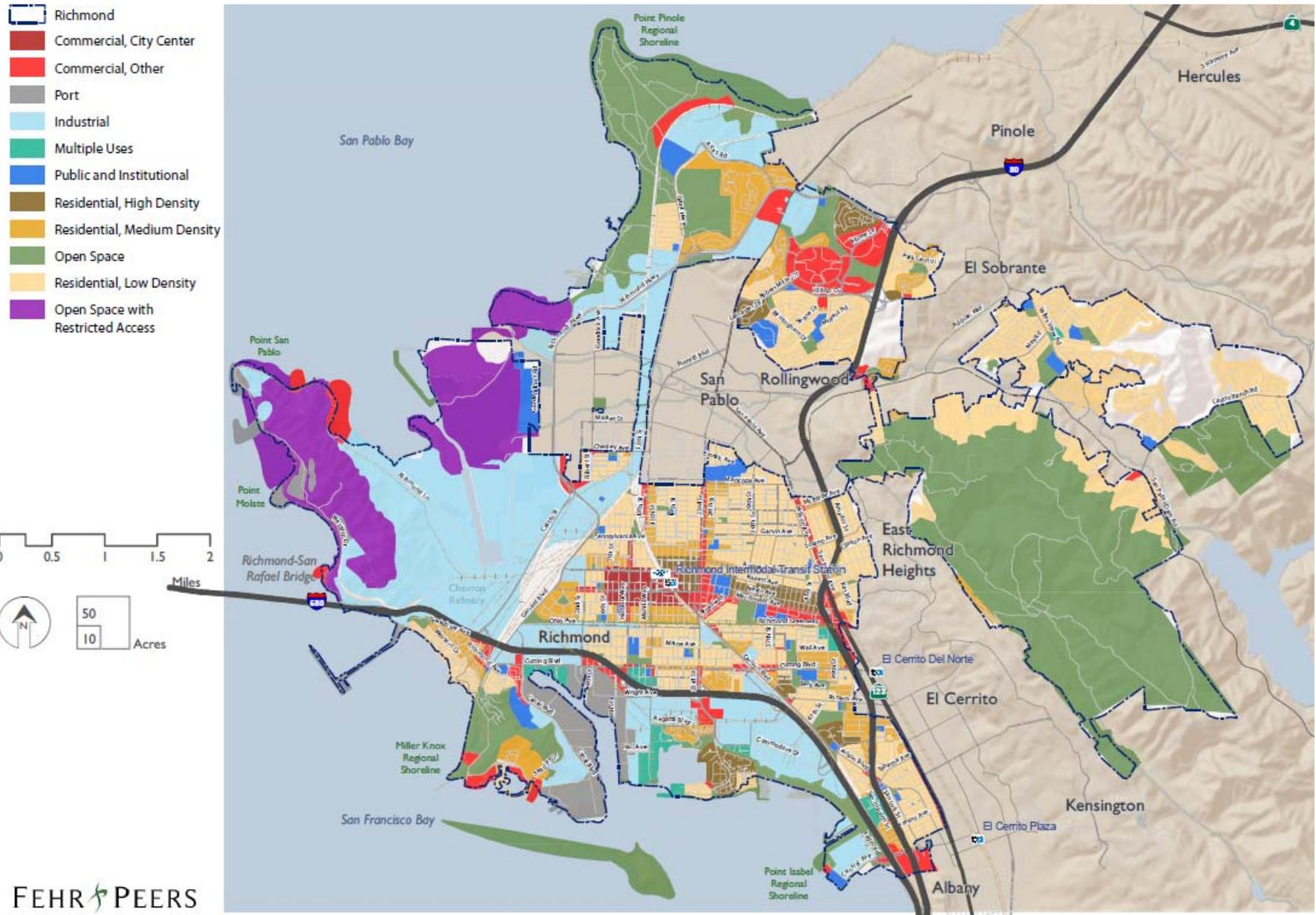
Richmond encompasses approximately 18,800 acres (see next page for the map of Richmond land use designations, from the City's General Plan). The largest component by land use is parks and open space, which make up 5,900 acres, or 31 percent of the total; however, the vast majority of this acreage is private, otherwise inaccessible to the public or does not border residential areas of Richmond. This is followed by residential neighborhoods (4,600 acres; 24 percent), industrial and port activities (4,100 acres; 22 percent), commercial uses (900 acres; 5 percent) and a variety of other uses. The open space and park lands are primarily found on the city's periphery; these include the Point Pinole, Point San Pablo, Point Molate, Miller-Knox and Point Isabel shorelines; the Rosie the Riveter/World War II Home Front National Historical Park, also on the shoreline; and, along the city's eastern edge, Wildcat Canyon and Sobrante Ridge. Smaller, urban parks are scattered throughout the city. The 2,430-acre Wildcat Canyon Regional Park, which extends to the Tilden Nature Area in Berkeley, accounts for more than half of the 4,287 acres of park land in Richmond; however, it is bordered by residential areas of Berkeley, Kensington, El Cerrito, San Pablo and unincorporated Contra Costa County, rather than those of Richmond.

The residential areas are concentrated in the City's central and southern portion with smaller but significant clusters in North Richmond, Parchester Village the Hilltop district and the El Sobrante Valley. Owing to Richmond's history as a seaport, industrial activities are clustered along the waterfront west of Garrard and south of I-580 or near rail lines in north Richmond. The main commercial areas are the City's downtown, Hilltop district and a regional-serving retail district near Point Isabel; smaller, local-serving retail districts are scattered throughout. Major employment centers include the Downtown, the port area, the Hilltop district and Chevron's Point Molate facility (Chevron is by far the city's largest employer).

There is a concentration of public buildings in the Downtown's civic center, including City Hall, Memorial Auditorium, Convention Center, main branch of the Richmond Public Library, and the Richmond Art Center. There are 44 public schools scattered throughout the city, including 28 elementary schools, eight middle schools, five high schools and three specialty schools.

In terms of development patterns, Richmond can be categorized into pre- and post-World War II areas. The City's southern portion was mostly developed in the first half of the 20th Century. This section of the City tends to feature the urban forms and patterns of that era: short blocks set on a grid, narrower streets, frequent intersections, mixture of land uses, moderately high development densities and small footprint buildings with sidewalks on nearly every block—all factors that contribute to bicycling (and walking). Following World War II, development spread to the city's northern and eastern parts. Development forms and patterns found in these more recently developed areas include wide, non-linear streets, long blocks, infrequent intersections and crossing points and segregated land uses with low development densities.

Map 4-1 | Land Uses in Richmond



UNIQUE OPPORTUNITIES FOR BICYCLING IN RICHMOND

The urban fabric of Richmond is distinctive. It faces many challenges with respect to being divided by freeways, railroads and major industrial sites, as well as high crime rates that affect people's sense of personal safety in public places. However, these challenges, along with a host of incredible opportunities, make Richmond a place that could experience dramatic change when these obstacles are overcome. Furthermore, there is considerable reason to believe that Richmond is ripe for change.

Good walking and bicycling bones

The City was originally developed around pedestrian travel and the streetcar, and continues to be a transit rich, transit oriented community today. Central Richmond has a uniform grid of small blocks and a good mix of land uses including diverse commercial streets well distributed throughout the City. The intermodal transit station in downtown Richmond provides convenient access to destinations throughout the Bay Area via AC Transit and BART, as well as destinations throughout the U.S. via Amtrak. The diversity and density of land uses, combined with excellent transit service provides the ideal environment for a thriving bicycle-friendly community.

Funding eligibility

From climate change initiatives to safe routes to school programs, there are multiple funding sources on both the regional and state level that are appropriate for Richmond. In addition, the City stands to benefit from the new Federal focus on healthy communities. Details on these funding opportunities are described in Chapter 10: Funding and Implementation. However, a key constraint for implementing future

projects is the City's limited capacity for project management and delivery. A dedicated, full-time staff position to coordinate pedestrian and bicycle projects will be instrumental in the successful implementation of this plan and the forthcoming Pedestrian Master Plan.

Underused rights of way

Historically, an expansive arterial road network was developed to support Richmond's major employers at the shipyards. As the Bay Area developed, several major freeways including I-80, I-580 and the Richmond Parkway were developed on top of the existing roadway network. As employment shrunk considerably since that time, the City now has many overly wide and redundant connector streets such as Cutting Boulevard, Harbour Way, Marina Bay Parkway, Barrett Avenue, and Carlson Boulevard. This excessive right of way provides many immediate opportunities to enhance the bicycle and pedestrian realm by expanding sidewalks, installing bike lanes and creating inviting public spaces along community activity and connector streets.

As noted, Richmond has the longest and most scenic section of the Bay Trail and is blessed with more shoreline than any other city in the Bay Area. As such, the City has the potential to be a magnet for people seeking healthy lifestyles, particularly as the City's bicycle network develops.

BICYCLE RIDERSHIP

Means of Transportation

Knowing how many people bicycle, and for what purposes can help the City develop projects and programs to better serve current and future cyclists. The next table shows the means of transportation used by workers 16 years and older in Richmond to commute from home to work, according to the latest U.S. Census (2000). For context and purposes of comparison, the table also shows this information for Contra Costa County, the nine-county Bay Area, California and the United States. The table shows that bicycling accounts for 0.6 of commute trips among Richmond workers; this is a higher share than for the county and U.S. but lower than for the Bay Area as a whole and the state at large. Drive-alone is the predominant means of commuting in Richmond but commands a significantly lower share than at the county, regional, state and national levels. Conversely, carpooling and public transportation are more common ways to commute in Richmond than elsewhere.

Bicycle Commuting in Richmond

Two hundred thirty-nine (or 0.6%) of the 41,745 workers in Richmond counted in the 2000 Census bicycled to work. Since this information is 10 years old, it is possible that the figure has changed. Bicycle commuters also include people who bike to school and those who bike to transit before continuing to work. More recent data for these two commuter categories can be extrapolated from the American Community Survey [ACS], a project of the Census Bureau which collects information every year instead of every 10 years but does not break out bicycling as a separate commute mode.

Table 4-1 | Home-to-work means of transportation (%; 2000 U.S. Census)

	<i>Richmond</i>	<i>Contra Costa County</i>	<i>Bay Area</i>	<i>California</i>	<i>U.S.</i>
Drive-alone	59.3	70.2	68.0	71.8	75.7
Carpool	19.6	13.5	12.9	14.5	12.2
Public transportation	14.5	9.0	9.7	5.1	4.7
Bicycle	0.6	0.5	1.1	0.8	0.4
Walk	1.9	1.5	3.2	2.9	2.9
Other ¹	4.3	5.4	5.1	4.8	4.1

¹ Includes work-at-home, motorcycle and taxicab

Below are estimates of bicycle ridership among these two later groups, followed by a table summarizing the total estimated daily number of bicycle commuters in Richmond.

- **Students biking to school:** According to the 2008 ACS, there were an estimated 28,026 enrolled students from Grade 1 to graduate school in Richmond. Assuming that five percent of them bicycle to school (based on results from a 1995 Lamorinda School Commute Study by Fehr & Peers) means an additional 1,401 bicyclists.
- **Workers biking to transit:** The 2008 ACS estimated 7,160 Richmond workers who commuted to work by transit. Assuming that two percent of them bike to transit before continuing on their way to work—percentages cited at various times by BART and AC Transit—means another 143 bicycle commuters.

Table 4-2 | Daily bicycle commuters

Workers	239
Students	1,401
Bike-to-transit riders	143
Total	1,783

Non-commute bicycle ridership

Commute trips represent a minority of bicycle trips. To get a fuller sense of bicycling in a community, it is essential to account for the other reasons, apart from commuting, that people use bicycles. The *National Bicycling & Walking Study*, published by the Federal Highway Administration in 1995, estimated that for every commute trip made by bicycle there were 1.74 trips made for shopping, social and other utilitarian purposes.

We can estimate the number of these other bicycle trips in Richmond as follows:

- **Number of daily bicycle commuters:** 1,783 (per Table 2)
- **Number of daily trips per commuter:** 2 (assumed; one trip from home to work and one trip back)
- **Number of daily bicycle commute trips:** 3,566 (1,783 x 2)
- **Daily bicycle trips for non-commute purposes:** 6,205 (3,566 x 1.74)

Lastly, many people ride bicycles primarily for recreation. While the Richmond Bicycle Master Plan focuses on bicycling for transportation, it is important to keep recreational riders in mind in the formulation of projects and programs: with enough encouragement, including sup-

portive infrastructure, many recreational riders can be expected to make the transition to bicycle commuters. While we do not have reliable figures, Richmond likely has a substantial number of recreational cyclists. The City is blessed with mild weather; generally flat terrain; large expanses of open space and park lands; the longest shoreline of any city in the Bay Area; and attractive off-street cycling facilities, including the Richmond Greenway, the Wildcat Creek Trail and, of course, some of the longest and most scenic stretches of the San Francisco Bay Trail.

Projected Bicycle Ridership

If other communities are any indication, implementation of this plan will result in a sizable increase—at least in relative terms—in bicycle ridership and daily trips. Not surprisingly, bicycling studies from around the country have found a correlation between bikeway miles per capita in a given community and its number of bicyclists. In a 2003 case study by Alta Planning + Design of three cities—Portland, San Francisco and Seattle—that implemented bicycle improvements, “after” bicycle ridership on improved corridors was between double and triple the “before” numbers. (This is consistent with an observation in the National Bicycling & Walking Study that “There are ... three times more commuter cyclists in cities with higher proportions of bike lanes.”) Implementation of an interconnected network of facilities—as opposed to a system of improved, but not necessarily linked, corridors—would likely have an even more pronounced effect. Bicycling in Richmond could see particularly strong growth if efforts are made to improve personal safety and security and to deter bicycle theft through secure bike parking.

Assuming such a tripling in the ridership, the implementation of the Bicycle Master Plan would result in approximately 5,349 daily bicycle commuters throughout the City (1,783 [from Table 4-2] multiplied by

3). Similarly, daily bicycle trips for shopping, social and other utilitarian purposes would increase to 18,615 (6,205 [from Table 4-2] multiplied by 3). These are order-of-magnitude estimates based on limited data and informed suppositions. In any event, it is reasonable to expect that implementation of the Bicycle Master Plan would yield handsome environmental and quality-of-life dividends associated with more bicycling and less driving.

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