Final

South and West Berkeley

Community-Based Transportation Plan

Alameda County Congestion Management Agency | June 4, 2007

DESIGN, COMMUNITY & ENVIRONMENT

Final

SOUTH AND WEST BERKELEY

COMMUNITY BASED TRANSPORTATION PLAN

Submitted to

Alameda County Congestion Management Agency | June 4, 2007

DESIGN, COMMUNITY & ENVIRONMENT

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I EXECUTIVE SUMMARY

A. Introduction

The South and West Berkeley Community Based Transportation Plan (CBTP) is the result of technical analysis and community outreach conducted in 2006-2007 to identify transportation needs and solutions for South and West Berkeley. The Plan was designed to advance the findings of the Metropolitan Transportation Commission's (MTC) *2001 Lifeline Transportation Network Report* and *Environmental Justice Report.* Both of these reports identified the need to support local planning efforts in low-income communities throughout the region. The Alameda Congestion Management Agency (ACCMA) oversaw the South and West Berkeley Community Based Transportation Plan, one of four plans in Alameda County.

B. Study-Area Description

The South and West Berkeley project area encompasses the area of West Berkeley bounded by the cities of Emeryville and Albany, the Berkeley waterfront, and San Pablo Avenue, as well as the area of South Berkeley bounded by Dwight Way to the north, Fulton Street to the east, and the Oakland city line to the south. Figure 1 on page III-2 shows a map of the project area.

South and West Berkeley contain 24,818 of the 97,710 residents of the City of Berkeley. Compared with the city as a whole, the project area has a larger proportion of African American residents and smaller proportions of White and Asian residents. The project area also has a higher proportion of Hispanic or Latino residents. In 2000, 21 percent of the area's total population was under the age of 18 and seniors 65 and older made up 11 percent of the population. Only 5.6% of households are linguistically-isolated (do not speak English); the majority of those are Spanish-speaking. According to MTC's thresholds, fully 39 percent of South and West Berkeley residents were living in poverty in 1999.

Fixed-route bus service is provided in the project area by the Alameda-Contra Costa Transit District (AC Transit). AC Transit operates local, Transbay, "All-Nighter" and Rapid bus services—all of which are found in South and West Berkeley. Due to the high-density, urban nature of the project area (as well as the demand for transit services), buses are operated on relatively frequent schedules (15 minute intervals during peak hours and 30 minute internvals midday, evenings and on weekends), with long hours of operation and robust weekend schedules. A total of 19 routes serve the South and West Berkeley project area, and no resident within this area lives farther than ¼ mile from an AC Transit route.

The San Francisco Bay Area Rapid Transit District (BART) provides a regional rail connection via the Ashby BART station located at Ashby Avenue and Adeline Street in the project area. The Richmond-Fremont and Richmond-Daly City BART lines serve the Ashby station. Although not located within the study area, the North Berkeley BART station is the nearest BART station to many project area residents, particularly those residing in West Berkeley.

Area residents who are unable to use fixed-route transit due to a disability can access paratransit services through East Bay Paratransit (the complementary ADA paratransit system for AC Transit and BART) or through the City of Berkeley's paratransit program.

The plan area has a generally well-connected street network based on the city's original platted street grid with multiple north-south and east-west routes that facilitate walking for transportation. There are also multi-use paths along the waterfront and the Berkeley Marina, including a bridge that connects Aquatic Park to the waterfront over the Interstate 80 freeway. A range of bikeways in the project area, from bicycle boulevards to lanes in residential areas, also take advantage of the City's well-connected street grid.

A more detailed description of existing conditions and transportation gaps can be found in Chapters III and IV of this document.

C. Overview of Approach

The CBTP was a collaborative planning process involving the South and West Berkeley community, local community-based organizations and a Technical Advisory Committee (TAC) composed of AC Transit and BART representatives and City of Berkeley staff. These groups provided important input on community outreach, project design and implementation strategies. The roles, composition and purpose of these groups are explained in Chapter V, Community Outreach.

The plan was divided into three phases, briefly described below:

1. Existing Conditions and Transportation Gaps
The first phase consisted of an analysis and summary of existing conditions and transportation gaps, including those identified in other planning documents.

2. Needs Identification
The South and West Berkeley community identified their transportation needs through a survey administered with assistance from Berkeley Youth Works and members of Building Opportunities for Self-Sufficiency. In conjunction with the survey, focus groups, presentations and interviews were held within the community.

3. Solutions and Implementation Strategies
Based on responses from outreach and discussions with implementing agencies, a series of solutions and implementation strategies were developed and prioritized.

D. Community Concerns

The top needs identified through community outreach were:

- Lower costs for transit – discounts and longer transfer times.
- Improved frequency for transit – especially AC Transit Route 9 and the Richmond-Fremont BART line.
- Improved conditions at bus stops – lighting, information, bus shelters.
- Improved crossing conditions for pedestrians and bicycles – especially at high volume arterial streets.
- Improved lighting for pedestrians – particularly along transit corridors and near BART stations.
- Increased markings on pavement for bicyclists.

The outreach process and a more detailed description of community-identified transportation needs can be found in Chapter V, Community Outreach.

E. Recommended Solutions and Implementation Strategies

A series of solutions and implementation strategies were developed to address transportation needs and gaps identified through outreach activities in South and West Berkeley. Where applicable, these strategies build upon existing efforts to improve transportation in South and West Berkeley. The strategies reflect consultation with likely implementing agencies to gauge feasibility and produce realistic cost estimates. Each strategy was ranked based on community support, transportation benefits, cost and funding availability, and implementation timeframe. Table I-1 summarizes the recommended strategies, the ranking, estimated cost and lead implementing agency.

TABLE I-1 **SUMMARY OF RECOMMENDED SOLUTIONS AND STRATEGIES**

Strategy	Ranking	Cost	Lead Agency
Bus Stop and Shelter Improvement	High	Shelters/benches at no cost; solar-powered lighting $700 to $3,000 per stop/shelter, transit info. $85-$385 each	AC Transit, City of Berkeley
Improved Pedestrian Signal Timing	High	No cost, city staff can implement at no extra cost	City of Berkeley
Secure Bicycle Parking	High	$115,000	BART, City of Berkeley
Route 9 Frequency and Span Improvements	Medium-High	$663,000 to $1.5 million per year	AC Transit
Route 19 Frequency Improvements	Medium-High	$796,000 to $2.5 million per year	AC Transit
Low-income Transit Fare Subsidy	Medium-High	Cost unknown, but high; strategies to increase awareness are lower cost	Multiple Agencies, including AC Transit and BART
Education of Cyclists regarding Bicycle Boulevard Network	Medium-High	$10,000 to $20,000	City of Berkeley, AC Transit,
Improved Crosswalk Visibility at Uncontrolled Intersections	Medium-High	$120,000	City of Berkeley
Transit Information (Not at Bus Stops)	Medium	Neighborhood transit brochure: $9,500 to $13,000	Multiple Agencies, including AC Transit, BART and City of Berkeley
AC Transit Weekend Transfer Window Extension	Medium	Cost unknown, but lost fare revenue may be high	AC Transit
Expansion of Berkeley Paratransit Programs	Medium	$360 to $1000 per each new registrant	City of Berkeley Paratransit Services
BART Frequency Improvements	Medium	$300,000 per year	BART
Shared Roadway Pavement Markings	Medium	$30,000	City of Berkeley
Improved Crossing for Bicycles at Bicycle Boulevards	Medium	$400,000 to $500,000	City of Berkeley
Improved Pedestrian Lighting	Low-Medium	$768,000 to $1,024,000	City of Berkeley
Subsidized Car Sharing	Low-Medium	$33,000 one time cost, plus $52,000 per year of ongoing costs	City of Berkeley and community partners
BART to Bus Real-time Arrival Information	Low-Medium	$100,000 to $200,000	BART, AC Transit

F. Next Steps

This CBTP discusses potential funding sources for the recommended project solutions. The following list of funding sources in Table I-2 is a result of discussion with public funding and implementing agencies, including the City of Berkeley, BART, AC Transit, the Metropolitan Transportation Commission and the Alameda County Transportation Improvement Authority (ACTIA).

TABLE I-2 **POTENTIAL FUNDING SOURCES BY PROJECT TYPE**

Project(s)	Key Potential Funding Sources
AC Transit Service Improvements: ♦ Route 9 Frequency and Span Improvements ♦ AC Transit Route 19 Frequency Improvements ♦ AC Transit Weekend Transfer Window Extension	♦ Ongoing sources of AC Transit operating funding (Transportation Development Act, sales and property tax revenues, Measure B, Measure 2) ♦ Lifeline Transportation Program (includes Job Access and Reverse Commute funds and State Transit Assistance funds) ♦ Congestion Mitigation and Air Quality Improvement Program
BART Frequency Improvements	♦ Ongoing sources of BART operating funding (Transportation Development Act, State Transit Assistance, sales and property tax revenues) ♦ Lifeline Transportation Program (includes Job Access and Reverse Commute funds and State Transit Assistance funds)
Bus Stop and Shelter Improvements	♦ Section 5307 Transit Enhancements ♦ Measure B ♦ Transportation Fund for Clean Air ♦ Lifeline Transportation Program ♦ Congestion Mitigation and Air Quality Improvement Program ♦ Safe Routes to Transit ♦ Transportation for Livable Communities ♦ City Capital Budget ♦ West Berkeley Redevelopment Area ♦ Private Sector Contributions

TABLE I-2 **POTENTIAL FUNDING SOURCES BY PROJECT TYPE** (CONTINUED)

Project(s)	Key Potential Funding Sources
Transit Information	♦ Section 5307 Transit Enhancements ♦ Transportation Fund for Clean Air ♦ Lifeline Transportation Program ♦ Transportation for Livable Communities ♦ Congestion Mitigation and Air Quality Improvement Program ♦ Private Sector Contributions
BART to Bus Real-Time Arrival Information at BART Stations	♦ Section 5307 Transit Enhancements ♦ Section 5307 ♦ Section 5309 ♦ Lifeline Transportation Program ♦ Transportation Fund for Clean Air ♦ Transportation for Livable Communities
Low-Income Fare Subsidy	Funding sources will need to be determined. Fare subsidy is not easily funded through existing programs, including the Lifeline Transportation Program, given restrictions on use of funds. New funding streams will need to be created to support this strategy.
Maximizing Accessibility of Existing Discounts	The proposed strategies are relatively low cost, but outside funding could support activities such as outreach related to increasing knowledge of existing fare discounts and possibly to support fare product vending in additional locations. Relevant funding sources include the Lifeline Transportation Program.
Subsidized Car Sharing	♦ Lifeline Transportation Program
Expansion of Berkeley Paratransit Services Taxi Scrip Program	♦ Measure B base program and Gap Grant program ♦ Potentially Lifeline Transportation Program ♦ Potentially Section 5317 (New Freedom Program)

TABLE I-2 **POTENTIAL FUNDING SOURCES BY PROJECT TYPE** (CONTINUED)

Project(s)	Key Potential Funding Sources
Bicycle and Pedestrian Facilities Improvements: ♦ Improve Crosswalk Visibility at Uncontrolled Intersections ♦ Improve Signal Timing (Longer Walk Time for Pedestrians) ♦ Improve Pedestrian Lighting ♦ Improved Crossings at Bicycle Boulevards ♦ Educate Cyclists about Bicycle Boulevard Network ♦ Provide More Locations for Safe Bicycle Storage ♦ Shared Roadway Pavement Markings on Class II.5 Bikeways and Traffic Circle Approaches	♦ STP Transportation Enhancements ♦ Congestion Mitigation and Air Quality Improvement Program ♦ Hazard Elimination Safety Program ♦ Office of Traffic Safety Grants ♦ TDA Article 3 ♦ Measure B ♦ Lifeline Transportation Program ♦ Transportation Fund for Clean Air ♦ Safe Routes to School ♦ Safe Routes to Transit ♦ Regional Bicycle and Pedestrian Program ♦ Transportation for Livable Communities ♦ City Capital Budget ♦ West Berkeley Redevelopment Area

II INTRODUCTION

A. Community-Based Transportation Planning

In 2002, the Metropolitan Transportation Commission (MTC) launched the Community Based Transportation Planning (CBTP) Program, which evolved out of two reports completed for the 2001 Regional Transportation Plan – the Lifeline Transportation Network Report and the Environmental Justice Report. Both recommended community-based planning as a method for setting local priorities for addressing transportation gaps in low-income communities throughout the Bay Area. South and West Berkeley was identified as an area in need of community-based transportation planning that could provide an overview of existing conditions, identify community transportation needs and prioritize a list of solutions to improve the mobility of low-income residents.

The Alameda County Congestion Management Agency (ACCMA) and the City of Berkeley Transportation Office coordinated the CBTP. The final plan is the culmination of a local collaborative planning process that identified transportation gaps and their potential solutions for the South and West Berkeley community.

B. Structure of the Report

The Community-Based Transportation Planning process was comprised of four sequential steps leading to creation of a prioritized list of community-recommended transportation improvement projects. Each of these sequential steps resulted in a stand-alone interim report. These interim reports included:

- Existing Conditions and Transportation Gaps
- Community Outreach Approach
- Solutions and Implementation Strategies
- Funding and Implementation

This final plan is an assemblage of each interim report, community response to these reports, and technical review of those reports. The document contains the following five chapters:

- **Chapter 3 – Existing Conditions** maps and describes the South and West Berkeley study area and the characteristics of its residents.
- **Chapter 4 – Transportation Gaps** evaluates the transportation conditions in South and West Berkeley.
- **Chapter 5 – Community Outreach Approach** outlines the community outreach process and summarizes findings.
- **Chapter 6 – Solutions and Implementation Strategies** offers transportation solutions, including rankings and cost estimates.
- **Chapter 7 – Funding and Implementation** presents a range of funding sources and matches them with the proposed transportation solutions.

III EXISTING CONDITIONS

A. Overview and Demographics

1. Study Area Land Use Characteristics

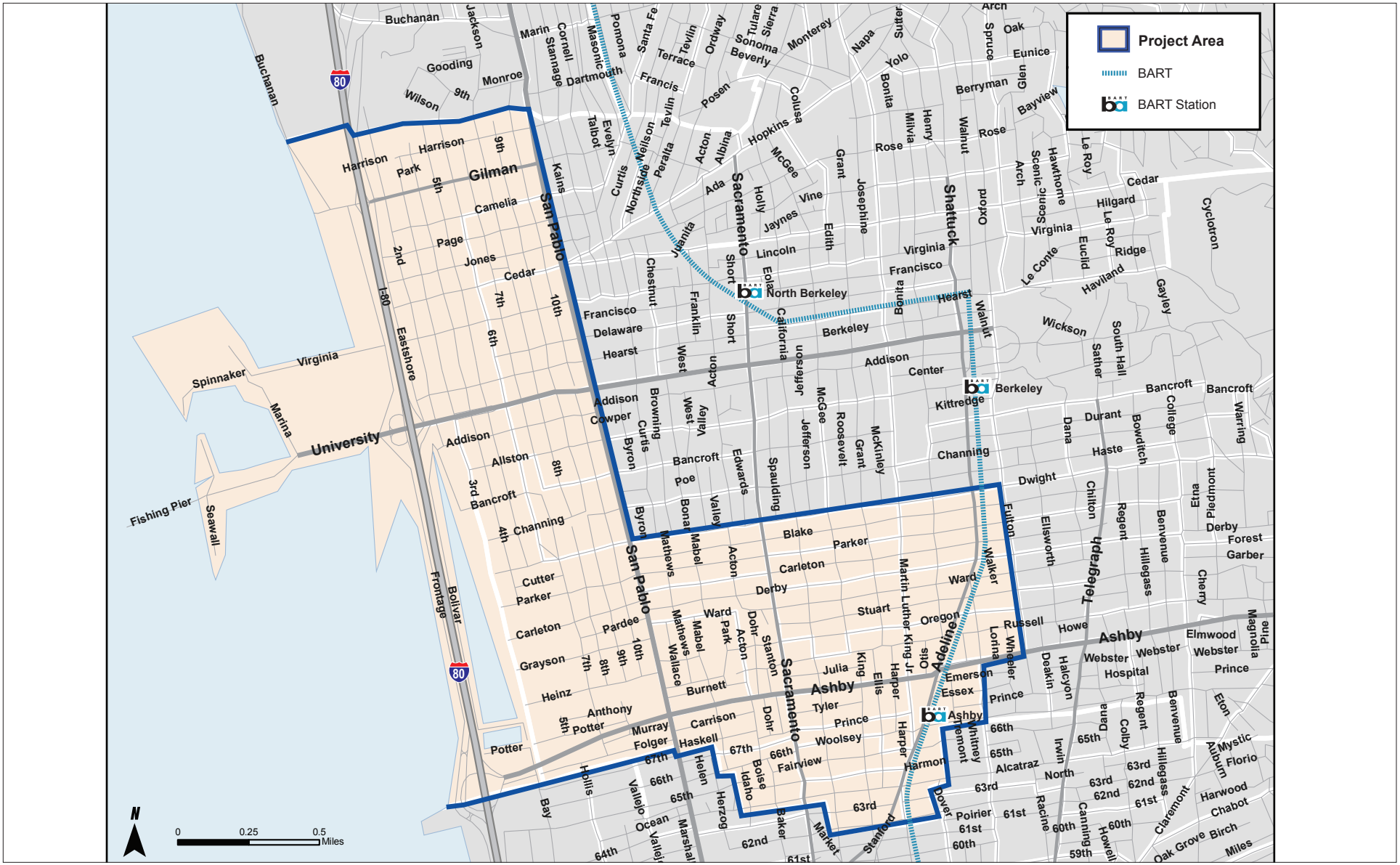
The South and West Berkeley project area encompasses the area of West Berkeley bounded by the cities of Emeryville and Albany, the Berkeley waterfront, and San Pablo Avenue, as well as the area of South Berkeley bounded by Dwight Way to the north, Fulton Street to the east, and the Oakland city line to the south[1] (Figure III-1). The project area had a 2000 population of 24,910 residents, comprising 10,375 households (an average household size of 2.35 people).[2]

Of the area's 10,375 occupied housing units, 38 percent were owner-occupied in 2000, while 62 percent were renter-occupied. The majority of South and West Berkeley housing is made up of single-family homes or duplexes, triplexes, and fourplexes. In 2000, 40 percent of housing units in the project area were single-family detached structures, while 5 percent were attached single-family structures. An additional 30 percent of housing units were located in structures with between two and four units. Relatively few housing units were located in large multi-unit structures: only 8 percent of units were in buildings with 20 or more units.

The South Berkeley portion of the project area bounded by San Pablo Avenue, Dwight Way, Fulton Street, and the Oakland city line is predominately residential, with commercial corridors along Adeline Street, Shattuck

[1] The South and West Berkeley project area is comprised of 2000 Census tracts 4220, 4221, 4232, 4233, 4234, 4235, 4240.01, 4240.02, as well as Census Block Group 2 of Census tract 4239.01.

[2] In 1990, the population of South and West Berkeley was 24,534. However, Census tract and block group boundaries changed in two areas between 1990 and 2000, inhibiting a strict comparison at the block group level. In 1990, block group 2 of tract 4239.1 additionally encompassed the area bounded by Ashby Avenue, Shattuck Avenue, Woolsey Street and Deakin Street (no longer included in this block group in 2000). In addition, Census tract 4220 did not include the Berkeley Marina area in 1990.



Source: Nelson/Nygaard, GIS Data Source: ESRI, US Census 2000, Location: Berkeley, CA

FIGURE III-1

SOUTH AND WEST BERKELEY STUDY AREA

Avenue, Sacramento Avenue and San Pablo Avenue. The eastern part of this area is in close proximity to downtown Berkeley and the UC Berkeley campus, and contains the Ashby BART station.

The West Berkeley portion of the project area is more diverse in terms of land use: just 27 percent of the project area's housing units are found in West Berkeley. Housing is concentrated in the area bounded by Camelia Street, San Pablo Avenue, Dwight Way, and 5th Street, with major commercial corridors continuing in this part of the project area along San Pablo, University, and Ashby Avenues. Outside of this area, residential land use gives way to manufacturing, light industrial and mixed-use areas, and the open spaces of Aquatic Park and the waterfront. Interstate 80 runs along this western edge, with access at Gilman Street, University Avenue, and Ashby Avenue. Another major transportation corridor, the Southern Pacific Railroad, runs along 3rd Street in West Berkeley.

2. Race and Ethnicity

In 2000, 38 percent of South and West Berkeley residents were Black or African American, while 37 percent were White, and 9 percent were Asian (Table III-1). The remaining 16 percent of residents identified as Native American, Native Hawaiian or Pacific Islander, members of some other race, or of two or more races. Seventeen percent of area residents were Hispanic or Latino (of any race) in 2000. Compared with the City of Berkeley as a whole, the project area has a larger proportion of Black or African American residents and smaller proportions of White and Asian residents. The project area also has a higher proportion of Hispanic or Latino residents (17 percent in the project area compared with 10 percent in the city as a whole). Over 40 percent of Berkeley's Hispanic or Latino residents lived in the project area in 2000.

TABLE III-1 **RACE OF RESIDENTS, PROJECT AREA AND CITY OF BERKELEY, 2000**

	South and West Berkeley		City of Berkeley	
Race	Total	% of Total	Total	% of Total
White	9,136	36.7%	60,797	59.2%
Black or African American	9,549	38.3%	14,007	13.6%
American Indian and Alaska Native	191	0.8%	467	0.5%
Asian	2,203	8.8%	16,837	16.4%
Native Hawaiian and Other Pacific Islander	50	0.2%	146	0.1%
Some other race	2,155	8.7%	4,764	4.6%
Two or more races	1,626	6.5%	5,725	5.6%
Total	**24,910**	**100.0%**	**102,743**	**100%**

Source: US Census 2000, STF 1 (100% data).

3. Age Distribution

In 2000, a total of 5,162 South and West Berkeley residents were under 18 (21 percent of the area's total population). Seniors 65 and older made up 11 percent of the population (Table III-2), compared to 10 percent in the city as a whole.

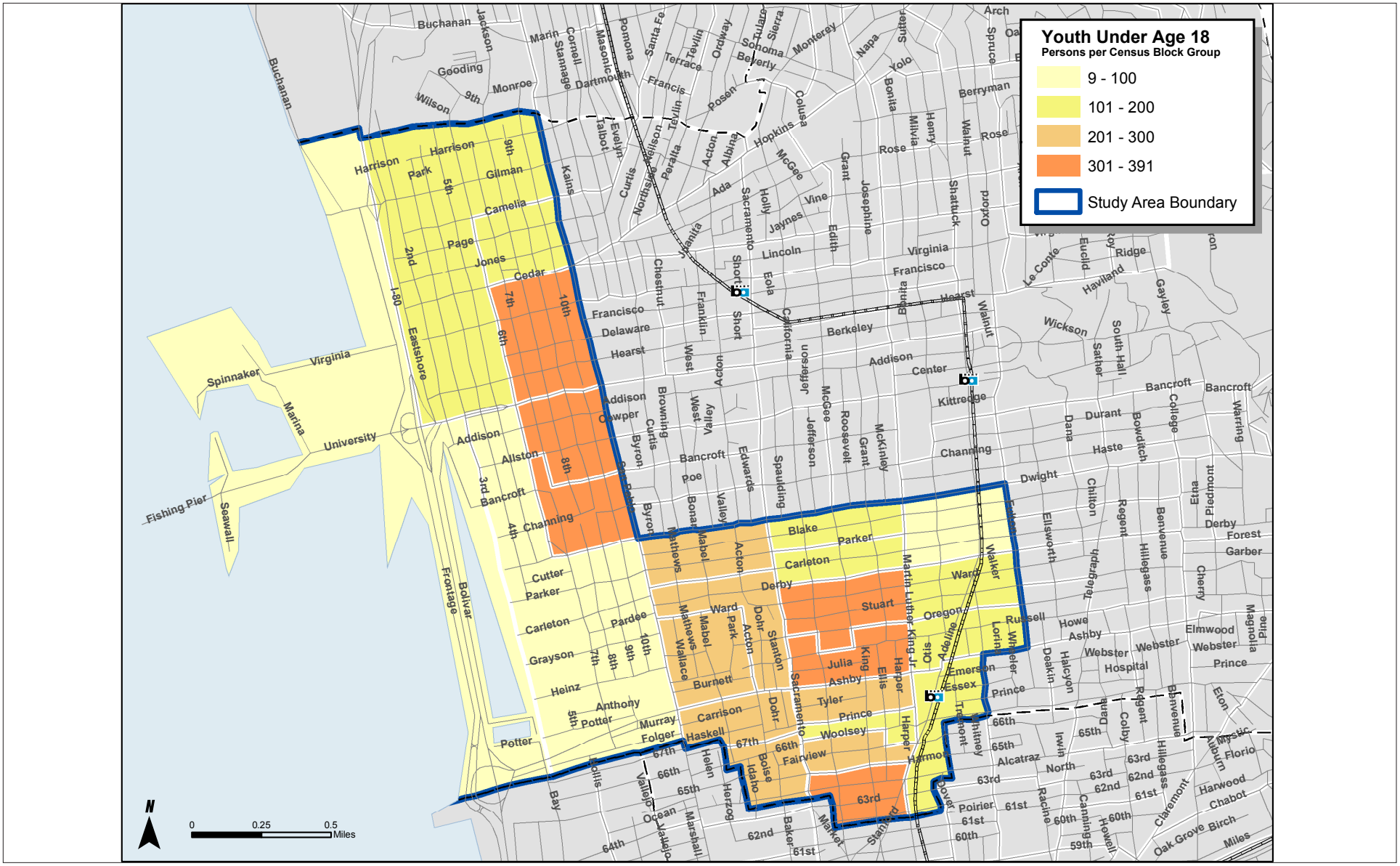
TABLE III-2 **AGE DISTRIBUTION OF SOUTH AND WEST BERKELEY RESIDENTS, 2000**

Age Range	Percent of Population
Under 5 years	6%
5 to 17 years	15%
19 to 34 years	32%
35 to 64 years	37%
65 to 79 years	7%
80 or older	4%
Total	**100%**

Source: US Census 2000, STF 1 (100% data).

As shown in Figure III-2, Census block groups with high numbers of youth under 18 years of age in 2000 were concentrated in the area bounded by San Pablo Avenue, Dwight Way, Martin Luther King, Jr. Way and the Oakland city line, as well as the area of West Berkeley bounded by 6th Street, Cedar Street, San Pablo Avenue, and Dwight Way.

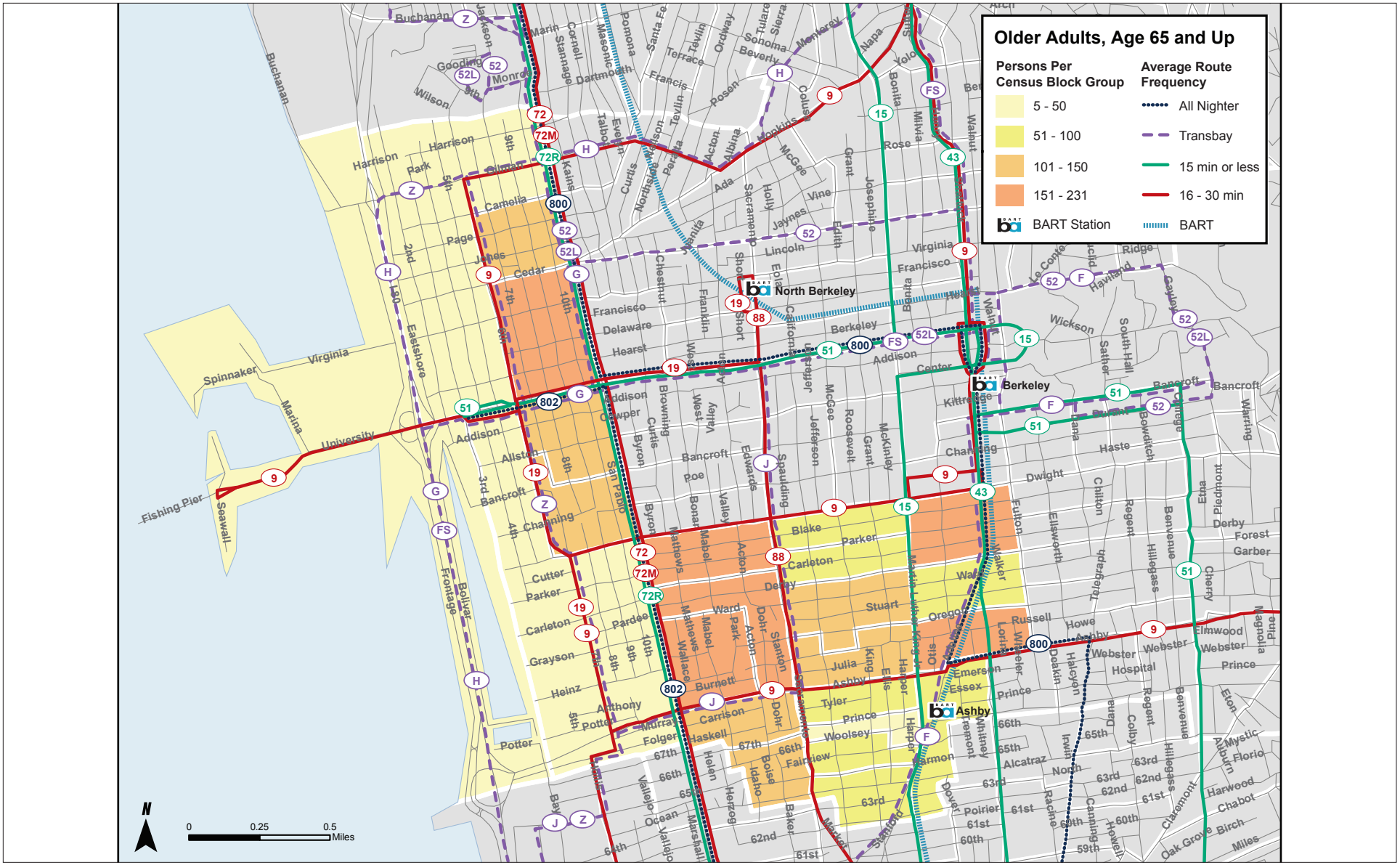
Figure III-3 shows the distribution of older adults age 65 and over within the project area in 2000. Census block groups with the largest numbers of older adults (over 150 individuals 65 or older) were found in the area of West Berkeley bounded by 6th Street, Cedar Street, San Pablo Avenue, and University Avenue; the area of South Berkeley bounded by San Pablo Avenue, Dwight Way, Sacramento Street, and Ashby Avenue; and the area of South Berkeley bounded by Martin Luther King Jr. Way, Dwight Way, Fulton Street and Ashby Avenue. Transit routes are superimposed on this map as a means of illustrating walk distances to transit from these areas.



Source: Nelson/Nygaard, GIS Data Source: ESRI, US Census 2000, Location: Berkeley, CA

FIGURE III-2

RESIDENTS UNDER 18, SOUTH AND WEST BERKELEY, 2000



Source: Nelson/Nygaard, GIS Data Source: ESRI, US Census 2000, Location: Berkeley, CA

FIGURE III-3

RESIDENTS 65 OR OLDER, SOUTH AND WEST BERKELEY, 2000

4. Language and Linguistic Isolation

In 2000, 72 percent of South and West Berkeley Households spoke English as their primary language, as shown in Table III-3. Of the remaining 28 percent of households, 13 percent were Spanish-speaking, 7 percent spoke Asian or Pacific Island languages, and 8 percent spoke other languages.

Of the 2,907 households speaking a language other than English as their primary language, 592 (20 percent) were found to be "linguistically isolated" (Table III-4). This term means that all household members age 14 and older speak a language other than English, and that no member 14 or older speaks English "very well". The majority of linguistically-isolated households in the project area were Spanish-speaking (318 of 592, or 54 percent). Nearly one-quarter of households speaking Spanish and Asian or Pacific Island languages were linguistically-isolated.

5. Income and Poverty Status

There are a variety of ways to measure a community's economic well-being. One method is to measure whether or not residents' incomes fall below federal poverty levels. Given that federal poverty thresholds do not vary geographically, so may under-represent poverty in a region such as the Bay Area where the cost of living is higher than the national average, MTC has adopted 200 percent of federal poverty to measure the incidence of poverty in the Bay Area. Another method is to look at the community's *relative* economic well-being by evaluating how the community's median household income compares to the median household income in surrounding communities. In the analysis below both of these methods are used.

a. Median Household Income

In 1999, median household incomes for the eight census tracts comprising nearly all of the project area ranged from $31,632 to $39,602, while the census block group making up the southeast corner of the project area (east of Martin Luther King Jr. Way and south of Ashby Avenue) had a median

TABLE III-3 **PRIMARY HOUSEHOLD LANGUAGE, 2000**

Primary Language of Household	Number	Percent
English	7,515	72%
Spanish	1,310	13%
Other Indo-European	654	6%
Asian and Pacific Island	709	7%
Other Languages	234	2%
Total Households	10,422	100%

Source: US Census 2000, Summary File 3 (sample data).

TABLE III-4 **LINGUISTIC ISOLATION, 2000**

Language Spoken	Number of Households Linguistically Isolated	Percent of Households Linguistically Isolated
Spanish	318	24%
Other Indo-European	59	9%
Asian and Pacific Island	182	26%
Other Languages	33	14%7
Total Households	592	–

Source: US Census 2000, Summary File 3 (sample data).

household income of $46,648.[3] The median household income for the City of Berkeley as a whole, by comparison, was $44,485. This indicates that, for the most part, households in the project area have lower incomes than households in the rest of the city, with the exception of the southeast corner of the project area. This pocket of higher income households is not unexpected given the diversity of income groups living in close proximity in Berkeley.

As shown in Table III-5, 36 percent of South and West Berkeley households had incomes under $25,000 in 1999, while 62 percent of households had incomes under $50,000.

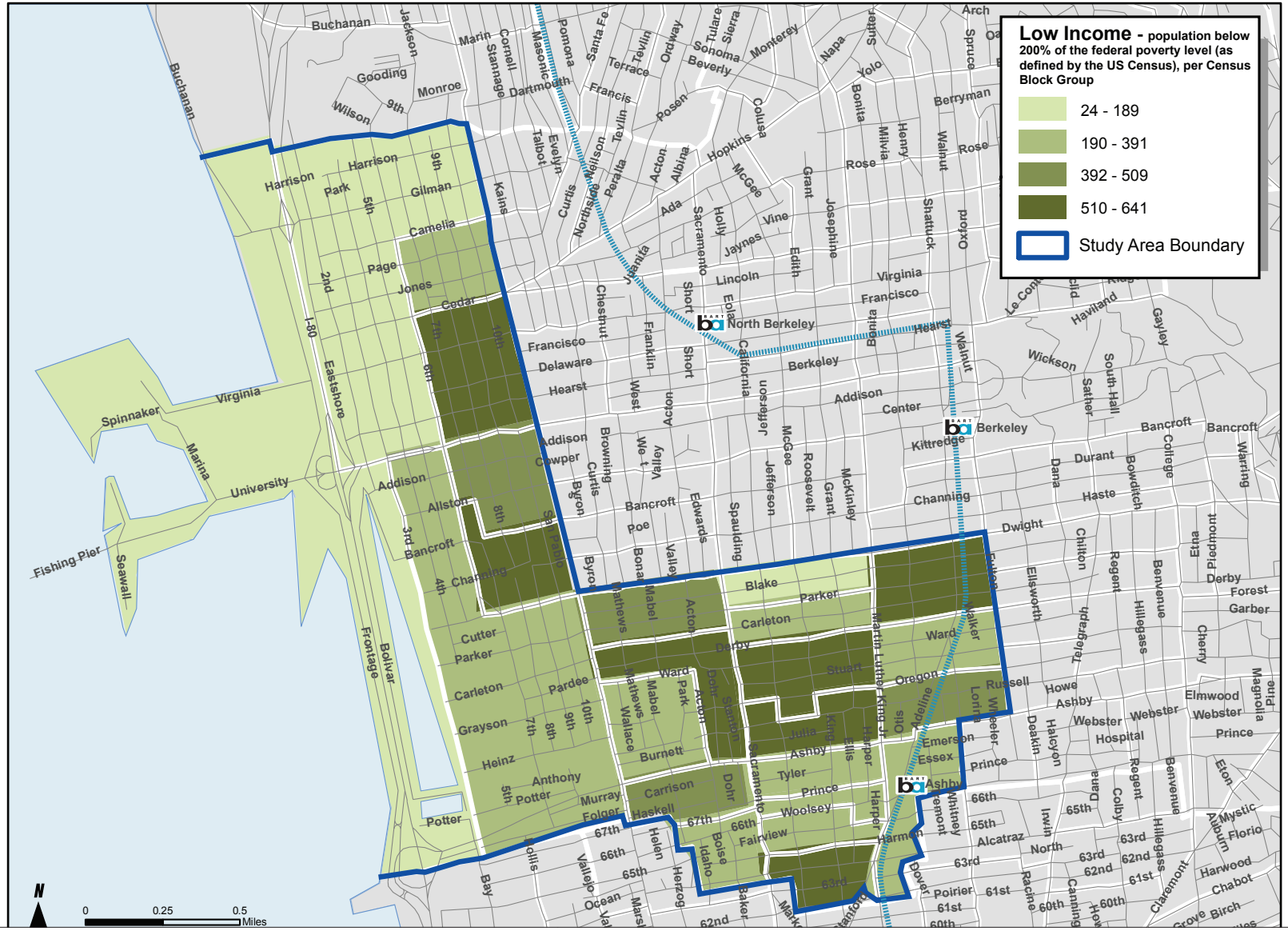
b. Poverty Status

The U.S. Census Bureau uses a set of income thresholds that vary by family size and composition to determine the population living in poverty. If a family's total income is less than the poverty threshold based on the composition of the family, then that family and every individual in it is considered to be living in poverty. Of the project area's nearly 25,000 residents, over 5,000 (or 20 percent) were found to be living in poverty in 1999 according to federal poverty thresholds. However, as discussed above, the Metropolitan Transportation Commission (MTC) has used a measure of twice the federal poverty threshold as a means of capturing the reality of poverty in the Bay Area, given the very high cost of living. By this measure, fully 39 percent of South and West Berkeley residents were living in poverty in 1999 (Table III-6). In 1999, average poverty thresholds at the 200% level ranged from $22,880 for a family of two to $74,152 for the largest families (nine people or more).

As shown in Figure III-4, the Census block groups with the largest numbers of residents living in poverty (according to the MTC threshold) were those bounded by 6th Street, Cedar Street, San Pablo Avenue, and Dwight Way in West Berkeley, as well as several block groups in South Berkeley. South Berkeley block groups with large numbers of residents living in poverty in-

[3] In the case of the U.S. Census, median household income is simply a measure of the median household income in a specified geographic area, regardless of the size of the households in that area.

cluded those bounded by Derby Street, Martin Luther King Jr. Way, Ashby Avenue, and Sacramento Street, as well as a contiguous block group located between Carleton Street and Ashby Avenue, the block group located south of Harmon Street, and the block group located in the northwestern corner of the South Berkeley portion of the project area.



Source: Nelson/Nygaard, GIS Data Source: ESRI, US Census 2000, Location: Berkeley, CA

FIGURE III-4

DISTRIBUTION OF SOUTH AND WEST BERKELEY RESIDENTS IN POVERTY, 1999

TABLE III-5 **INCOME RANGES FOR SOUTH AND WEST BERKELEY HOUSEHOLDS, 1999**

Income Range	Number	Percent of Total
Less than $10,000	1,580	15%
$10,000–$14,999	846	8%
$15,000–$24,999	1,406	13%
$25,000–$34,999	1,176	11%
$35,000–$49,000	1,610	15%
$50,000–$74,999	1,985	19%
$75,000–$99,000	820	8%
$100,000–$149,000	697	7%
$150,000–$199,000	212	2%
$200,000 or more	90	1%
Total Households	**10,422**	**100%**

Source: US Census 2000, Summary File 3 (sample data).

TABLE III-6 **POPULATION IN POVERTY (200% OF FEDERAL POVERTY), 1999**

	City of Berkeley	South and West Berkeley
Total Population for which Poverty Status is Determined	97,710	24,818
Population at Less than Twice Federal Poverty	31,751	9,694
Percent of Population in Poverty by this Measure	32%	39%

Source: US Census 2000, Summary File 3 (sample data).

Note: The high percentage of residents in poverty in the City of Berkeley as a whole (32 percent) is partially attributable to the large number of students living in the city.

by Sacramento Street, Derby Street, Martin Luther King Jr. Way and Ashby Avenue.

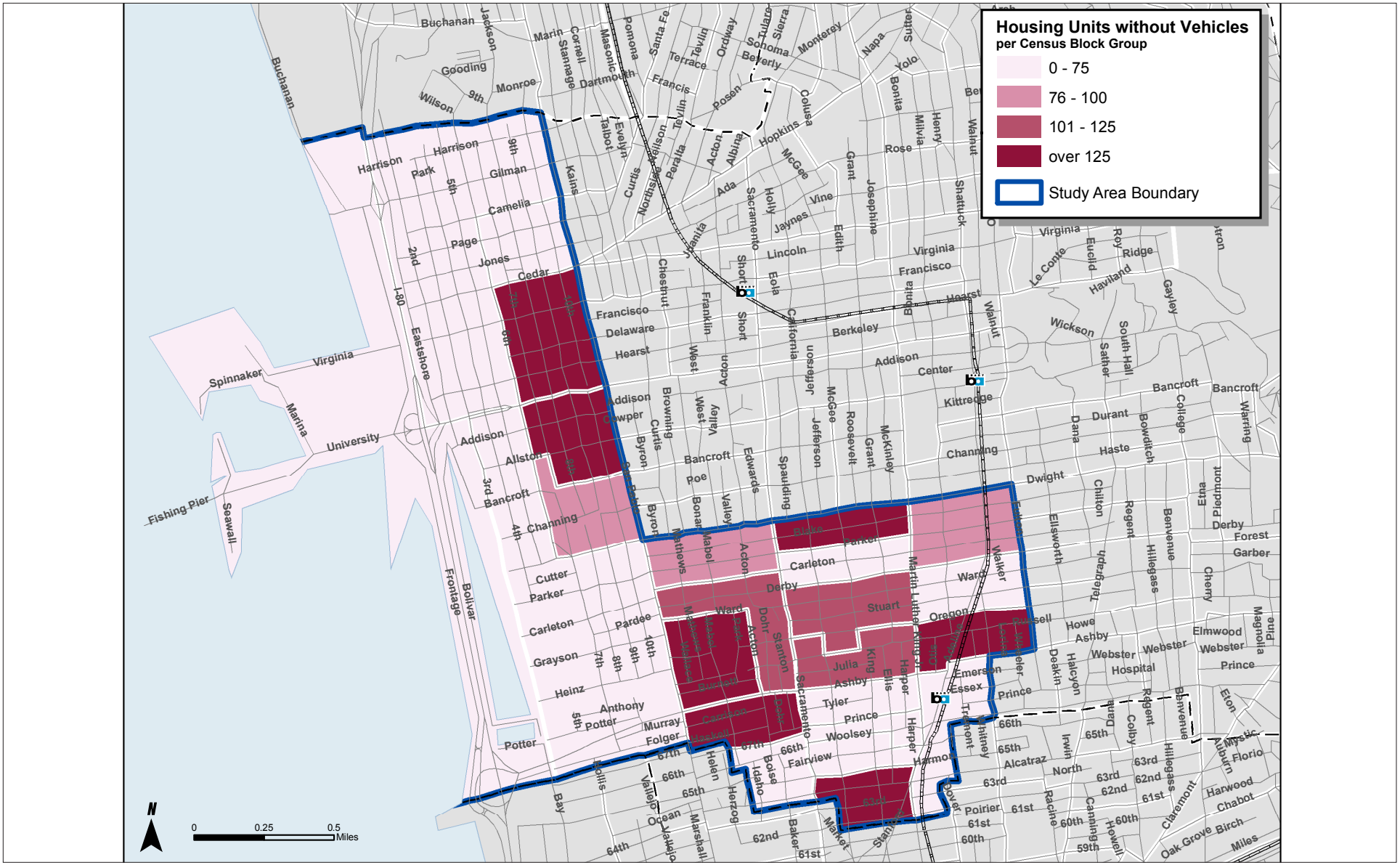
6. Vehicle Availability

In 2000, 2,071 South and West Berkeley households (20 percent of total households) were without a private vehicle (Table III-7). An additional 45 percent of area households had just one private automobile, while 25 percent had two or more vehicles. Vehicle availability varied between owner-occupant and renter households. Only 10 percent of owner-occupant households were without a vehicle, compared with 26 percent of renter households. Over one-half of owner households had two or more vehicles available, compared with less than one-quarter of renter households.

Census block groups with high numbers of households without vehicles were scattered throughout South Berkeley, and clustered in West Berkeley in the area bounded by 6th Street, Cedar, San Pablo Avenue and Bancroft Way (Figure III-5).

7. Journey to Work

As shown in Table III-8, of the 11,650 workers in the South and West Berkeley project area, 58 percent traveled to work via car, truck or van in 2000 (46 percent driving alone, and 12 percent carpooling). Use of public transportation for work trips was higher among study area residents than it was among city and county residents. Twenty-three percent of South and West Berkeley workers commuted via transit in 2000, compared to 19 percent of workers in the City of Berkeley as a whole, and 11 percent of Alameda County workers.



Source: Nelson/Nygaard, GIS Data Source: ESRI, US Census 2000, Location: Berkeley, CA

FIGURE III-5

DISTRIBUTION OF HOUSEHOLDS WITH NO VEHICLES, 2000

TABLE III-7 **VEHICLE AVAILABILITY, SOUTH AND WEST BERKELEY RESIDENTS, 2000**

Vehicle Availability	Percent of Households
No Vehicles Available	20%
Owners	10%
Renters	26%
One Vehicle Available	45%
Owners	36%
Renters	51%
Two or more Vehicles Available	35%
Owners	54%
Renters	23%

Source: US Census 2000, Summary File 3 (sample data).

TABLE III-8 **MODE OF TRAVEL TO WORK, 2000**

	South and West Berkeley		City of Berkeley	Alameda County
Mode of Travel to Work	**Number**	**% of Total**	**% of Total**	**% of Total**
Car, Truck or Van	6,731	58%	53%	80%
Drove alone	5,339	46%	43%	66%
Carpooled	1,392	12%	10%	14%
Public Transportation	2,679	23%	19%	11%
Bus or Trolleybus	1,172	10%	7%	4%
Streetcar or Trolleycar	62	1%	0%	0%
Subway or Elevated	1,416	12%	11%	5%
Railroad	29	0%	0%	1%
Ferryboat	0	0%	0%	0%
Taxi	0	0%	0%	0%
Motorcycle	54	0%	1%	0%
Bicycle	834	7%	6%	1%
Walked	614	5%	15%	3%
Other	117	1%	1%	1%
Worked at Home	622	5%	7%	4%
Total Workers 16 and Over	**11,651**	**100%**	**100%**	**100%**

Source: US Census 2000, Summary File 3 (sample data).

An additional 7 percent of workers commuted by bicycle, while 5 percent walked.

8. Disability Status

In 2000, according to U.S. Census sample data,[4] over 5,300 individuals living in South and West Berkeley reported having some form of disability (including physical, mental and sensory disabilities and/or those that made it difficult for the individual to go outside the home alone, hold employment, or take care of his or her personal needs). This figure represents 23 percent of the South and West Berkeley population for which disability status was determined (23,500 civilian, non-institutionalized individuals five years of age or older).[5]

B. Existing Transportation Network

This section briefly describes the existing transit, bicycle and pedestrian service and infrastructure in South and West Berkeley. Various planning documents describe plans for additional transit improvements, bicycle facilities and improvements to the pedestrian environment. These documents are summarized in the discussion of transportation gaps in Chapter IV.

1. Transit Services

a. AC Transit

Fixed-route bus service is provided in the project area by the Alameda-Contra Costa Transit District (AC Transit). AC Transit operates local, Transbay, "All-Nighter" and Rapid bus services—all of which are found in South and West Berkeley. The AC Transit service area includes the eastern area of Alameda and Contra Costa counties along the San Francisco Bay, from

[4] Summary File 3 sample data.

[5] While many of these 5,300 individuals may have special mobility needs, it cannot be assumed that all people with disabilities require specialized transportation services.

Richmond in the north to Fremont in the south. Transbay routes serve the Transbay Terminal in San Francisco.

Due to the high-density, urban nature of the project area (as well as the demand for transit services), buses are operated on relatively frequent schedules, with long hours of operation and robust weekend schedules. A total of 19 routes serve the South and West Berkeley project area, and no resident within this area lives farther than ¼ mile from an AC Transit route. The base fare for local bus service is $1.75 for adults, and $.85 for youth and seniors. The Transbay fare is $3.50 for adults and $1.70 for youth and seniors. AC Transit routes, service frequencies and hours of operation will be discussed in more detail in Chapter IV, Transportation Gaps. Various fare subsidies available to youth, seniors, and people with disabilities are discussed in Chapter VI, Solutions.

b. BART

The San Francisco Bay Area Rapid Transit District (BART) provides a regional rail connection via the Ashby BART station located at Ashby Avenue and Adeline Street in the project area. The Richmond-Fremont and Richmond-Daly City BART lines serve the Ashby station. Although not located within the study area, the North Berkeley BART station is the nearest BART station to many project area residents, particularly those residing in West Berkeley.

The BART system encompasses 43 stations and five lines serving Alameda, Contra Costa, San Francisco, and San Mateo Counties. The overall service hours for the system are 4:00 a.m. to midnight Monday through Friday, 6:00 a.m. to midnight on Saturdays, and 8:00 a.m. to midnight on Sundays. In urban areas (such as Berkeley), BART stations are spaced between one-half to one mile apart, making local travel on BART possible. BART fares begin at $1.40 and vary with distance traveled. The fare from the Ashby BART to San Francisco is a minimum of $3.10. BART offers the following discounted fare products:

- High value tickets carrying a 6.25% discount

- Discount tickets carrying 62.5% discount for persons with disabilities, Medicare cardholders, and children 5-12 years of age
- Discount tickets carrying 62.5% discount for seniors 65 and older
- Discount tickets carrying a 50% discount for middle and secondary school students ages 13-18, for trips to school and school-sponsored events only, Monday through Friday.

BART service to the project area will also be discussed in more detail in Chapter IV, Transportation Gaps.

Parking is available at both the Ashby and North Berkeley stations. The daily parking fee is $1.00 before 3:00 p.m. and free after 3:00 p.m. Monthly parking permits are available at these two stations for $63.00 per month. There is a 24-hour weekday time limit on parking at BART stations, except in a limited number of spaces at each station that are designated as Airport/Long Term parking. The fee for Airport/Long Term parking is $5.00 per day. A limited number of bicycle lockers are also provided at both the Ashby and North Berkeley BART stations (34 at the Ashby station currently, and 58 at North Berkeley station).[6] BART riders must apply for a locker permit, and the fee is $15 for three months or $30 for one year.

Security of bicycle parking remains an important issue for BART patrons, with the North Berkeley BART station having a relatively frequent incidence of bicycle theft. BART is in the process of installing additional electronic bicycle lockers throughout the system—including at the Ashby and North Berkeley BART stations—as a means of better meeting demands for secure bicycle parking.

[6] Bicycle lockers can also be used by customers to store wheelchairs or mopeds.

c. Other Services

i. West Berkeley Shuttle

The West Berkeley Shuttle, administered by the Berkeley Gateway Transportation Management Association and sponsored by the City of Berkeley and several private sector employers, connects the Ashby BART station with major employment sites in West Berkeley every 30 minutes during peak commute hours. The shuttle makes six stops in the project area, along Ashby Avenue and at various locations on 5th, 6th and 7th Streets. The shuttle is available to the public for a $.50 fare per ride.

ii. Amtrak Capitol Corridor

Rail service to the Amtrak Capitol Corridor (San Jose to Auburn via Sacramento) can be accessed at the Amtrak station at 3rd Street and University in West Berkeley.

2. Paratransit

Area residents who are unable to use fixed-route transit due to a disability can access paratransit services through East Bay Paratransit, the complementary Americans with Disabilities Act (ADA) paratransit system for AC Transit and BART, or through the City of Berkeley's paratransit program.

East Bay Paratransit operates within ¾ mile of AC Transit fixed-routes and BART stations. Due to the density of transit services in South and West Berkeley, the entire project area is within the East Bay Paratransit service area. Riders can travel as far north as Richmond and as far south as Fremont on East Bay Paratransit, and may also travel to San Francisco. East Bay Paratransit operating hours mirror those of the fixed-route transit services serving the rider's origin and destination (that is, operating hours for AC Transit and BART fixed-route services determine the operating hours of East Bay Paratransit services in the corresponding ¾ mile corridors). Riders must be certified as ADA eligible to use East Bay Paratransit services. One-way fares range between $3.00 and $7.00 according to the distance traveled.

The City of Berkeley provides additional paratransit services for low-income persons with disabilities and residents over 70 years of age. This program is funded in part by Measure B sales tax revenues administered by the Alameda County Transportation Improvement Authority (ACTIA). The City issues free taxi scrip and vouchers for wheelchair-accessible vans as a supplement to the services provided by East Bay Paratransit. Eligibility for taxi scrip is subject to income restrictions, while van vouchers are available to all East Bay Paratransit-certified wheelchair users. Riders may use scrip or vouchers to travel up to 50 miles from their point of origin. The City also provides a limited amount of free East Bay Paratransit tickets to program registrants, as well as subsidized taxi and van rides for program registrants returning from medical appointments.

3. Car Sharing

There are three car sharing programs that serve the City of Berkeley. City CarShare, Flexcar and Zip Car each have vehicles parked in various locations throughout the city, where program members can pick-up and drop-off cars after reserving them and using them for an hourly rate. Very few car sharing vehicles are parked within the study area, however; pick-up and drop-off locations are instead concentrated in downtown Berkeley near the University of California, Berkeley campus. Of the 44 car sharing vehicles in the city of Berkeley, just five vehicles are parked within the study area, and all five of these vehicles are parked at the Ashby BART station.[7] There are also four car sharing vehicles parked at the North Berkeley BART station.

4. Pedestrian Infrastructure

An important feature in the pedestrian environment of South and West Berkeley is the street network. The plan area has a generally well-connected street network based on the city's original platted street grid with multiple north-south and east-west routes. There are also multi-use paths along the

[7] Flexcar has 14 cars parked in Berkeley, one of which is parked at the Ashby BART station. Zip Car has 18 cars parked in Berkeley, two of which are parked at the Ashby BART station. City CarShare has 12 cars parked in Berkeley, two of which are parked at the Ashby BART station.

waterfront and the Berkeley Marina, including a bridge that connects Aquatic Park to the waterfront over the Interstate 80 freeway.

The City of Berkeley has a range of signalized, unsignalized and uncontrolled intersections on arterial and local streets. This variety in intersections and pedestrian crossing conditions presents a range of challenges to youth, seniors and disabled persons, some of which are addressed in this plan. Generally, short pedestrian crossing times at signalized intersections and long crossing distances at uncontrolled intersections are the most readily identifiable issues that can be addressed through low-cost recommendations.

5. Bicycle Infrastructure

There are a range of existing bikeways in the project area, from multi-use paths along the waterfront and Berkeley Marina to bicycle boulevards[8] and lanes in residential areas. In West Berkeley, 9th Street is designated as a bicycle boulevard, and a bicycle lane runs on 9th Street between Dwight Way and Delaware Street. Bicycle boulevards extend into West Berkeley on Virginia Street and Channing Way, east of the railroad corridor. In South Berkeley, Russell Street, Milvia Street, California Street, and King Street are bicycle boulevards, with bicycle lanes striped on California Street and on Adeline Street between Derby Street and Woolsey Street. These bicycle boulevards are located on low-volume streets parallel to the city's major[9] streets. They provide a safe alternative to riding on busy streets and the well-connected network can lead a cyclist to destinations throughout the city.

[8] A "bicycle boulevard" is a street that has received any of a range of design treatments that give priority to cyclists, while restricting or deterring motorized vehicle traffic. Berkeley Bicycle Plan, 2005.

[9] The City of Berkeley's General Plan classifies streets as local, collector or major. The city's major streets link into regional networks and in most locations are designed to facilitate the efficient flow of vehicular traffic.

Berkeley has bicycle parking facilities throughout the city. Sidewalk racks are located along major commercial corridors. In addition, North Berkeley[10] and Ashby BART stations have bicycle racks and lockers, although demand for these parking facilities regularly exceeds supply.

[10] Although the North Berkeley BART station is not in the plan area, it is likely that many South and West Berkeley residents or employees use this station.

IV CURRENT TRANSIT SERVICE AND TRANSPORTATION GAPS

The following chapter describes current transit service in the study area and summarizes gaps in the transportation network (including transit, paratransit, bicycle and pedestrian components) identified in the Metropolitan Transportation Commission's 2001 Lifeline Transportation Network Report or in other relevant studies.

A. Current Transit Service in the Study Area

1. AC Transit and BART Services

Seventeen AC Transit routes and two BART lines serve the South and West Berkeley project area. Tables IV-1 and IV-2 below summarize these services.

Figure IV-1 maps the routes discussed above and displays the frequencies of all local AC Transit and BART routes serving the project area. The frequencies identified in Figure IV-1 are average frequencies, i.e., some routes may operate more frequently during peak periods. The peak and off-peak frequencies for each transit route serving the South and West Berkeley are discussed in more detail later in this chapter.

2. West Berkeley Shuttle

The West Berkeley shuttle, which connects the Ashby BART Station with several West Berkeley employment centers, operates on 30-minute frequencies, Monday through Friday during peak commute hours only. Although the shuttle traverses the project area along Ashby Avenue and Dwight Way, it stops only at the Ashby BART station and at the large employment centers along 6th and 7th Streets between Dwight Way and Ashby Avenue. It does not pick-up or drop-off passengers in the predominantly residential areas in between those locations.

TABLE IV-1 **SUMMARY OF AC TRANSIT SERVICES SERVING SOUTH AND WEST BERKELEY**

AC Transit Route	Route Description
Local Service	
9 Dwight	Serves Ashby Ave., 7th St., Dwight Way, Shattuck Ave., Hopkins St., Gilman St., 6th St., and the Berkeley Marina via the Ashby and Berkeley BART stations
15 Martin Luther King, Jr.	Serves El Cerrito BART, Martin Luther King Jr. Way, Berkeley BART, Ashby BART, downtown Oakland, and Park Blvd.
19 Hollis	Serves North Berkeley BART, University Ave., 7th St., Hollis St. downtown Oakland, Alameda, and Fruitvale BART
43 Shattuck	Serves Albany, Solano Ave., Berkeley BART, Shattuck Ave., downtown Oakland, Foothill Blvd., and Eastmont Transit Center
51 Broadway	Serves University Ave., Berkeley BART, College Ave., downtown Oakland, Alameda
52/52L Cedar/University	Serves San Pablo Ave., University Ave., UC Berkeley campus/Berkeley BART. #52 serves limited trips on Cedar St. Monday-Friday only
72/72M San Pablo/MacDonald	Serves San Pablo Ave. or MacDonald Ave., El Cerrito del Norte BART, El Cerrito Plaza BART, downtown Oakland
72R San Pablo Rapid *(Monday-Friday only)*	Rapid bus service to Contra Costa College, San Pablo Ave., El Cerrito del Norte BART, El Cerrito Plaza BART, downtown Oakland
88 Market	Serves Sacramento Street, Market Street, Downtown Oakland through Lake Merritt BART
All-Nighter Service	
800 Transbay All-Nighter	Serves Richmond BART, San Pablo Ave., University Ave., Shattuck Ave., Adeline St., Ashby Ave., Telegraph Ave., downtown Oakland, Market St. (San Francisco) and Transbay Terminal
802 San Pablo Ave. All-Nighter	Serves Berkeley Amtrak Station, University Ave., San Pablo Ave., downtown Oakland

AC Transit Route	Route Description
Transbay Service	
F Adeline Transbay	Serves Berkeley BART and UC Berkeley, Shattuck Ave., Adeline St., Ashby BART, Market St., and Transbay Terminal
FS North Berkeley Transbay *(Monday-Friday only)*	Serves Shattuck Ave., University Ave., and Transbay Terminal
G Solano Transbay *(Monday-Friday only)*	Serves El Cerrito Plaza BART, Colusa Ave., Solano Ave., San Pablo Ave., University Ave, and Transbay Terminal
H El Cerrito Transbay *(Monday-Friday only)*	Serves Arlington Blvd., Monterey Ave., Hopkins St., Gilman St., and Transbay Terminal
J Sacramento *(Monday-Friday only)*	Serves Sacramento St., Ashby Ave., Emeryville, and Transbay Terminal
Z 6th Street *(Monday-Friday only)*	Serves San Pablo Ave., Gilman St., 6th St., 7th St., and Transbay Terminal

Source: AC Transit.

TABLE IV-2 **SUMMARY OF BART SERVICE TO SOUTH AND WEST BERKELEY**

BART Route	Route Description
Richmond-Fremont	Serves El Cerrito Del Norte, El Cerrito Plaza, North Berkeley, Downtown Berkeley, Ashby, MacArthur, 19th St. Oakland, 12th St. Oakland, Lake Merritt, Fruitvale, Coliseum, San Leandro, Bay Fair, Hayward, South Hayward, and Union City
Richmond-Daly City *(Monday-Saturday only)*	Serves El Cerrito Del Norte, El Cerrito Plaza, North Berkeley, Downtown Berkeley, Ashby, MacArthur, 19th St. Oakland, 12th St. Oakland, West Oakland, Embarcadero, Montgomery, Powell, Civic Center, 16 St. Mission, 24th St. Mission, Glen Park, Balboa Park, and Daly City

Source: BART.

Source: Nelson/Nygaard, GIS Data Source: ESRI, US Census 2000, Location: Berkeley, CA

FIGURE IV-1

AC TRANSIT SERVICE AND FREQUENCIES, SOUTH AND WEST BERKELEY

B. The Lifeline Network

This section provides a summary of the outcomes of the Metropolitan Transportation Commission's 2001 Lifeline Transportation Network Report as they relate to South and West Berkeley, including identification of those transit routes serving South and West Berkeley classified as "Lifeline routes", and an evaluation of these routes' performance relative to specific frequency and span of service objectives.[1]

1. Lifeline Network Routes

MTC's 2001 Lifeline Transportation Network Report evaluated all transit routes in the Bay Area against a set of criteria intended to identify "Lifeline Network" routes. To be included in the Lifeline Network, a transit route had to meet one of the following four criteria:

- Serves low-income neighborhoods as defined by high concentrations of CalWORKs households (10 or more per ¼ mile area).
- Provides service to areas with high concentrations of essential destinations (including employment sites, medical facilities, homeless shelters, career and job training centers, daycare centers, schools, civic destinations, public housing sites, and establishments accepting food stamps).
- Is part of a transit operator's core/trunkline service as defined by the operator.
- Provides a key regional link.

Nine AC Transit Routes and two BART lines serving the South and West Berkeley project area were identified as components of the Lifeline Network. These routes are identified in Table IV-3, along with the Lifeline criteria that were satisfied by each. One of the transit routes listed, AC Transit Route 6,

[1] This evaluation was completed in early 2007 and therefore does not reflect AC Transit service changes planned for June 2007. According to AC Transit staff, the June 2007 changes will not have a significant impact on levels of transit service in South and West Berkeley.

has subsequently been eliminated, though a portion of Route 6 has been incorporated into Route 9.

2. Transit Gaps Identified in the Lifeline Transportation Network Report

MTC's Lifeline Transportation Network Report identified both spatial and temporal gaps in transit service provision in the Bay Area. Spatial gaps were defined as areas with low-income neighborhoods or key destinations that were unserved by transit. These gaps were identified by mapping a ¼-mile corridor (the equivalent of a 5-minute walk) on either side of Lifeline routes, and identifying low-income areas or key destinations falling outside Lifeline corridors. No spatial gaps were identified in the City of Berkeley.[2] There are no residential areas in South and West Berkeley that are more than ¼-mile from a transit route.

Temporal gaps were identified by comparing the span of the service day and frequency of Lifeline transit services to urban or suburban service objectives-developed by MTC. Lifeline services in South and West Berkeley were compared to urban service objectives.

The Lifeline Transportation Network Report identified the following objectives for frequency of urban transit service:

- 15-minute peak frequencies, Monday through Friday
- 30-minute midday and night frequencies, Monday through Friday
- 30-minute frequencies on weekends

The objectives for hours of operation are:

- 6:00 a.m. – 12:00 a.m. Monday through Saturday
- 7:30 a.m. – 12:00 a.m. on Sundays

[2] Only one spatial gap was identified in Alameda County: the Cherryland neighborhood of unincorporated Alameda County.

TABLE IV-3 **LIFELINE TRANSIT ROUTES SERVING SOUTH AND WEST BERKELEY**

Route	Description	Serves Cal-WORKs Cluster	Serves Essential Destin-ations	Operator Trunkline Route	Regional Link	Connection to Other Lifeline Services
AC 6*	Parkwood-Piedmont	X				BART
AC 9	University Ave–Berkeley BART	X	X			BART
AC 15	El Cerrito BART-Montclair	X	X			BART
AC 43	El Cerrito-Bayfair	X	X	X		BART
AC 51	Berkeley-Oakland-Alameda	X	X	X		BART
AC 52/52L	U.C. Village-UC Campus	X	X			BART
AC 72/72L**	Richmond-Downtown Oakland	X	X	X		BART
AC 88	North Berkeley BART-Downtown Oakland	X	X			BART
AC F	Berkeley-San Francisco	X	X	X	X	BART, GGT, Muni, SamTrans
BART Richmond-Fremont	Richmond-Oakland-Hayward-Fremont	X	X	X	X	AC Transit, GGT, Union City Transit, VTA, Vallejo, WestCAT
BART Richmond-Daly City	Richmond-Oakland-San Francisco-Daly City	X	X	X	X	AC Transit, Muni, GGT, SamTrans, Vallejo, WestCAT

* AC Transit route 6 has been eliminated since publication of the Lifeline Transportation Network Report, though a portion of the former route 6 has been incorporated into route 9.
** New Rapid bus service has been implemented on this route since 2001.
Source: Lifeline Transportation Network Report (2001)

a. Lifeline Frequency of Service Objectives

In 2001, three AC Transit routes serving South and West Berkeley (15, 43, and 52/52L) did not meet all of the Lifeline frequency of service objectives. An additional route (9) did not operate on weeknights, and route 52/52L did not operate on weekends. The two BART routes met frequency objectives when operating (the Richmond-Daly City line does not operate on weeknights or Sundays).

Since 2001, increased frequencies on routes 15, 43, and 52/52L have enabled these routes to meet Lifeline frequency objectives (Table IV-4). Service is now provided on route 52L on weekends and service on route 9 has been extended from 7:00 p.m. to 9:00 p.m. on weeknights. Two routes that formerly met Lifeline objectives for peak frequencies (9 and F) do not meet these objectives today following a reduction from 15-minute to 20- to 30-minute frequencies in the peak period.

BART routes continue to meet Lifeline frequency objectives, though as in 2001, no direct service is provided on the Richmond-Daly City line on weekday and Saturday nights after 8:00 p.m. or on Sundays.

Table IV-4 displays current frequencies for Lifeline transit routes serving South and West Berkeley. Shaded boxes indicate periods during which service frequency does not meet the Lifeline service objectives.

TABLE IV-4 **LIFELINE ROUTES FREQUENCY OF SERVICE**

	Lifeline Frequency of Service Objectives (Minutes)				
Lifeline Route	Weekday Commute 15 (Actual Frequency)	Weekday Midday 30 (Actual Frequency)	Weekday Night 30 (Actual Frequency)	Saturday 30 (Actual Frequency)	Sunday 30 (Actual Frequency)
AC 9	N	Y	Y	Y	Y
	(20-30)	(30)	(30)	(30)	(30)
AC 15	Y	Y	Y	Y	Y
	(15)	(15)	(30)	(15)	(15)
AC 43	Y	Y	Y	Y	Y
	(15)	(15)	(15)	(20)	(20)
AC 51	Y	Y	Y	Y	Y
	(10)	(10)	(20)	(15)	(15)
AC 52/52L	Y	Y	Y	Y	Y
	(15)	(30)	(30)	(30)	(30)
AC 72/72L*	Y	Y	Y	Y	Y
	(15)	(15)	(20-25)	(15)	(15)
AC 88	N	Y	Y	Y	Y
	(20)	(20)	(30)	(20)	(20)
AC F	N	Y	Y	Y	Y
	(30)	(30)	(30)	(30)	(30)
BART Richmond-Fremont	Y (15)	Y (15)	Y (20)	Y (20)	Y (20)
BART Richmond-Daly City	Y (15)	Y (15)	No Service	Y (20)	No Service

* Service now operates as routes 72/72M and 72R.

Notes: Y = Meets Lifeline Objective.
N = Does not meet Lifeline Objective

Source: AC Transit

b. Lifeline Hours of Operation Objectives

Lifeline hours of operation objectives call for urban transit service to operate between 6:00 a.m. and 12:00 a.m. Monday through Saturday, and 7:30 a.m. and 12:00 a.m. on Sundays. A comparison of current AC Transit service hours with 2001 service hours reveals that the service day has been extended on several of the Lifeline routes serving South and West Berkeley since 2001.

In 2001, four of the eight Lifeline routes serving South and West Berkeley (9, 15, 52/52L, 72/72L) did not meet Lifeline objectives for hours of operation. Today, route 72/72L meets (and surpasses) the Lifeline objective, while the other three routes continue to have a shorter service day than the MTC objective (Table IV-6). However, the service day has been lengthened (in some cases quite substantially) on routes 9, 15, 52/52L, and F. As discussed above, weekend service has been added on route 52L.

The Richmond-Fremont BART line begins operations 20 minutes later than the Lifeline objective on Sundays, but otherwise exceeds MTC objectives. As in 2001, the BART Richmond-Daly City line does not meet service objectives due to the lack of direct night and Sunday service, though non-direct travel is possible (i.e. the trip can be made with a transfer between trains).

There are several additional routes serving South and West Berkeley that were not identified as Lifeline routes, but that nonetheless provide important connections for South and West Berkeley residents. Table IV-5 summarizes existing frequencies on these routes, the majority of which are Transbay or All-Nighter services. Route 19 went into service in 2003, so was not included in MTC's 2001 Lifeline analysis. However, this route does meet several of the Lifeline route criteria, and additionally serves as a key transit link for West Berkeley residents.

TABLE IV-5 **FREQUENCY OF SERVICE FOR NON-LIFELINE ROUTES**

Non-Lifeline Route	Lifeline Frequency of Service Objectives (Minutes)				
	Weekday Commute 15 (Actual Frequency)	Weekday Midday 30 (Actual Frequency)	Weekday Night 30 (Actual Frequency)	Saturday 30 (Actual Frequency)	Sunday 30 (Actual Frequency)
AC 19	N	Y	Y	Y	Y
	(30)	(30)	(30)	(30)	(30)
AC 800	All-Nighter service; operates on 60-minute headways during early weekday morning hours and 30-minute headways during Saturday and Sunday early morning hours.				
AC 802	All-Nighter service; operates on 60-minute headways during early morning hours.				
AC FS	Transbay service; operates on 20- to 40-minute headways during weekday peak periods.				
AC G	Transbay service; operates on 30-minute headways during weekday peak periods.				
AC H	Transbay service; operates on 20-minute headways during weekday peak periods.				
AC J	Transbay service; operates on 20-minute headways during weekday peak periods.				
AC Z	Transbay service; operates on 25- to 45-minute headways during weekday peak periods.				

Notes: Y = Meets Lifeline Objective
N = Does not meet Lifeline Objective
Source: AC Transit.

Table IV-6 displays the current hours of operation for Lifeline routes serving South and West Berkeley. Shaded boxes indicate days of the week for which the hours of operation for certain routes do not meet Lifeline standards.

Table IV-7 summarizes the hours of operation for routes that were not identified as Lifeline routes in 2001.

While the summaries above provide one means of understanding potential temporal gaps in transit services in the South and West Berkeley area, they do not capture other issues related to transit availability—such as the need to transfer between routes and the time necessary to complete transit trips—that can affect the viability of transit services for passengers. Additional needs or gaps in services identified by outreach respondents will be discussed in detail in Chapter V.

C. Transportation Gaps Identified in Local Plans

The following section summarizes the findings of several local planning documents that discuss specific transportation gaps in the project area. The more recent plans reviewed include:

- Berkeley General Plan/Transportation Element (2001)
- Berkeley Bicycle Plan (1998)
- Berkeley Bicycle Plan Update (2005)
- ACTIA's "Removing Paratransit Gaps in Alameda County" (2004)

Several older plans were also reviewed, though in many cases recommendations are now out of date and/or do not reflect changing conditions in the project area. These plans include:

- South Shattuck Strategic Plan (1997)
- University Avenue Strategic Plan (1996)
- Waterfront Master Plan (1986)
- West Berkeley Plan/Transportation Element (1993)

TABLE IV-6 **LIFELINE ROUTES HOURS OF OPERATION OBJECTIVES**

Lifeline Route	Lifeline Hours of Operation Objectives: Weekday 6 a.m. – 12 a.m. (Actual Hours of Operation)	Saturday 6 a.m. – 12 a.m. (Actual Hours of Operation)	Sunday 7:30 a.m.–12 a.m. (Actual Hours of Operation)
AC 9	N	N	N
	6:30 a.m.–9:20 p.m.	7:00 a.m.–8:50 p.m.	7:00 a.m.–8:50 p.m.
AC 15	N	N	N
	5:30 a.m.–10:30 p.m.	6:00 a.m.–11:00 p.m.	6:00 a.m.–11:00 p.m.
AC 43	Y	Y	Y
	5:00 a.m.–12:25 a.m.	5:40 a.m.–12:20 a.m.	5:40 a.m.–12:20 a.m.
AC 51	Y	Y	Y
	4:55 a.m.–12:40 a.m.	5:00 a.m.–12:40 a.m.	5:00 a.m.–12:40 a.m.
AC 52/52L	N	N	N
	7:00 a.m.–12:20 a.m.	8:00 a.m.–12:00 a.m.	8:00 a.m.–12:00 a.m.
AC 72/72L*	Y	Y	Y
	3:40 a.m.–1:20 a.m.	3:40 a.m.–1:20 a.m.	3:40 a.m.–1:20 a.m.
AC 88	Y	Y	Y
	5:30 a.m.–12:20 a.m.	5:30 a.m.–12:20 a.m.	5:30 a.m.–12:20 a.m.
AC F	Y	Y	Y
	5:00 a.m.–12:45 a.m.	5:40 a.m.–1:10 a.m.	5:40 a.m.–1:10 a.m.
BART Richmond-Fremont	Y 4:00 a.m.–1:30 a.m.	Y 5:50 a.m.–1:30 a.m.	N 7:50 a.m.–1:30 a.m.
BART Richmond-Daly City	N 5:10 a.m.–7:50 p.m.	N 8:50 a.m.–7:45 p.m.	N No Service

* Service now operates as routes 72/72M and 72R.

Notes: Y = Meets Lifeline Objective
N = Does not meet Lifeline Objective

Source: AC Transit.

TABLE IV-7 **HOURS OF OPERATION FOR NON-LIFELINE ROUTES**

Non-Lifeline Route	Lifeline Hours of Operation Objectives Weekday 6 a.m. – 12 a.m. (Actual Hours of Operation)	Saturday 6 a.m. – 12 a.m. (Actual Hours of Operation)	Sunday 7:30 a.m.–12 a.m. (Actual Hours of Operation)
AC 19	N	N	N
	6:06 a.m.–10:21 p.m.	6:06 a.m.–10:21 p.m.	6:06 a.m.–10:21 p.m.
AC 800	*All-Nighter Service*		
	12:08 a.m.–5:30 a.m.	12:08 a.m.–6:30 a.m.	12:08 a.m.–9:21 a.m.
AC 802	*All-Nighter Service*		
	12:07 a.m.–5:28 a.m.	12:07 a.m.–5:28 a.m.	12:07 a.m.–5:28 a.m.
AC FS	*Transbay Service*		
	6:05 a.m.–8:51 a.m. & 4:25 p.m.–7:36 p.m.	No Service	No Service
AC G	*Transbay Service*		
	5:31 a.m.–8:55 a.m. & 3:40 p.m.–8:00 p.m.	No Service	No Service
AC H	*Transbay Service*		
	5:55 a.m.–9:00 a.m. & 4:10 p.m.–9:00 p.m.	No Service	No Service
AC J	*Transbay Service*		
	6:02 a.m.–9:15 a.m. & 4:00 p.m.–8:41 p.m.	No Service	No Service
AC Z	*Transbay Service*		
	6:55 a.m.–9:08 a.m. & 4:30 p.m.–6:52 p.m.	No Service	No Service

Notes: Y = Meets Lifeline Objective
N = Does not meet Lifeline Objective
Source: AC Transit.

A new Pedestrian Plan, currently under development, will also apply to the project area. All of the above plans are consistent in encouraging a shift from automobiles to walking, bicycles and transit as preferred transportation modes. In terms of land use, they also encourage mixed use development (e.g. housing above retail) and higher densities on main corridors. These approaches can serve to reduce the need for automobile trips and support the viability of transit services.

The impetus for many of the policies in these plans is the perceived deterioration of quality of life due to increased auto traffic. The General Plan notes that from 1977 to 2001, traffic on major streets within the project area grew between 20 to 26 percent. According to the various plans, growth in employment and housing, combined with a decrease in transit funding, has contributed to increased auto use in the area.

1. Transit Gaps

Gaps or needs related to the transit system identified in the plans reviewed include the following:

- Need for improved transit services to West Berkeley (West Berkeley Plan: 1993). Recommended improvements included increased transit service on 7th Street (south of Dwight Way), improved waiting arrangements at the rail station at University Avenue and 3rd Street, transit service linking West Berkeley to the North Berkeley BART station, and more frequent transit service on University Avenue.

  Since adoption of the West Berkeley Plan, several relevant improvements have been made, including the following:
  - AC Transit Routes 9 and 19 serve 7th Street south of Dwight Way from 6:30 a.m.-9:20 p.m. and 6:05 a.m.-10:20 p.m., respectively, with 20- to 30-minute frequencies.
  - New passenger waiting facilities have been installed at the rail station.
  - AC Transit Route 19 links North Berkeley BART to West Berkeley.
  - Routes 9 and 19 serve University Avenue in West Berkeley on 30-minute frequencies, while route 51 serves University on 15-minute frequencies.

- Need for more robust intermodal linkages and transportation services (Berkeley General Plan: 2001). Recommended actions include:
  - Work with AC Transit to increase east-west cross-town service.
  - Increase shuttle services between neighborhood commercial areas and between BART stations and employment centers, such as West Berkeley.
  - Encourage expansion of transit, rail service, and intermodal connections in West Berkeley.

Additional issues identified in existing planning documents include the need for more amenities at bus stops in West Berkeley, and the need to reduce the necessity for riders to make transfers when using the transit system.

2. Paratransit Gaps

In 2004, the Alameda County Transportation Improvement Authority (ACTIA) undertook an outreach effort examining gaps in service for paratransit consumers throughout Alameda County. This effort was intended to guide investment of funding available for paratransit services and related projects from Measure B sales tax revenues. Outreach in North County included two consumer workshops held at ACTIA's office in downtown Oakland as well as presentations to the Berkeley Commission on Aging and the Berkeley Commission on Disability, among other efforts. Major themes emerging from the outreach effort in North County included the need for (1) new resources supporting same day medical trips, (2) equal access for ambulatory and non-ambulatory paratransit riders, and (3) resources for home improvements to support mobility (such as ramps). Several projects were implemented with Measure B revenues as a result of this effort, including a Medical Return Trip program that was subsequently incorporated into the City of Berkeley's paratransit services. However, given the level of need and limitations on available resources, the findings of ACTIA's outreach effort likely remain current today.

3. Pedestrian Network Gaps

Berkeley ranks among the top ten cities in California for its *per capita* rate of car-pedestrian collisions (the number of pedestrian-car collisions divided by the city's population), but it is in fact the safest city in California when the *per walker* rate is considered, that is, when the number of pedestrian-car collisions is divided by the number of pedestrians.[3] However, the pedestrian environment in South and West Berkeley can still be improved. The area has many wide streets with high volumes of traffic and streetscapes with little landscaping or trees. In some of the industrial areas sidewalks are absent or do not meet Americans with Disabilities Act standards for clear passage.

The City of Berkeley is in the process of creating a Pedestrian Master Plan in order to address pedestrian safety and mobility concerns. The Master Plan aims to:

- Provide guidance for developing a comprehensive pedestrian system that is integrated with other modes of transportation and that provides safe and efficient paths of travel
- Provide guidance for future targeted activities and programs that will result in increasing the number of people in the City who walk for transportation
- Identify potential capital investment projects that will contribute to an expanded, safer and more attractive walking environment in the City
- Identify actions and policies that will increase the number of people who walk instead of drive single occupancy vehicles in the City
- Provide guidance for evaluating potential projects Citywide

As part of that process, the city has conducted a citywide pedestrian collision analysis using Space Syntax.[4] The following locations in South and West

[3] Staff Report to Transportation Commission, Heath Maddox, November 8, 2006.

[4] Space Syntax models and analyzes the urban environment to estimate pedestrian volumes for each segment of a city's pedestrian network.

Berkeley are included in the City's list of intersections with the highest number of collisions per pedestrian:

- University Avenue and San Pablo Avenue (Ranked #1)
- Ashby Avenue and San Pablo Avenue (Ranked #4)
- Gilman Street and 6th Street (Ranked #9)
- Russell Street and Martin Luther King Jr. Way (Ranked #11)

The West Berkeley Plan, adopted in 1993, calls for installation of sidewalks where none exist, improvement of existing sidewalks and wheelchair ramps, and the elimination of sidewalk parking. The plan further recommends targeting successful commercial districts as areas for initial focus for pedestrian improvements.

The 1998 South Shattuck Plan targets Shattuck Avenue between Dwight Way and Ashby Avenue for both economic revitalization and enhanced transportation and urban design. The transportation element of the plan emphasizes creating a pedestrian-friendly neighborhood and encouraging non-auto transportation. Elements of the plan include parking demand management and safety measures, such as improved lighting, signage, crosswalk enhancements, and sidewalk bulb-outs for pedestrians. The plan highlights specific pedestrian crossings where lack of traffic signals and stop signs create pedestrian crossing safety concerns. The intersection of Adeline Street, Shattuck Avenue and Ward Street are identified as being particularly awkward for pedestrians.

Ed Roberts Campus (ERC) is a proposed community-serving transit oriented development with planned facilities to serve as the future site of a disability rights service, advocacy, education, training, and policy center. The campus will be located on the east side of the Ashby BART Station.

Overall pedestrian-related improvements identified in the 2006 ERC Plan include:

- Pedestrian Concourse connecting the BART station to the below-grade entrance to the ERC and to Adeline Street above via a new public elevator and staircase

- New Ramp, Staircase, Pedestrian Pathway, Lighting and Landscaping through a reconstructed parking lot level with Adeline Street that replaces the existing terraced lot that is unsafe and difficult to patrol
- New Pedestrian Plaza, Paratransit Waiting Area and Transit Information Kiosk at Adeline Street, improved with new pedestrian-scale lighting and street trees
- New Crosswalks and median improvements on Adeline Street and across a new driveway off Adeline that will move BART vehicular access off residential Woolsey Street and onto Adeline.

4. Bicycle Network Gaps

According to the 2000 Census, 5.6 percent of Berkeley residents (3,071 of 54,674) commute to work by bicycle — up from 4.9 percent in 1990 (2,651 of 54,590). This change represents a 15 percent increase in the number of bicycle commuters in Berkeley from 1990 to 2000. Over the same time period, the percentage of bicycle commuters in Alameda County remained static at around 1.2 percent.

As described in Chapter III Existing Conditions, South and West Berkeley has a geographically expansive network of bikeways. However, barriers to bicycle travel still exist. The plan area has many high-volume arterial streets that are difficult to cross. Abandoned and active railroad tracks along bikeways and other streets are also difficult to negotiate on a bicycle.

The additions to the bicycle network proposed in the 2005 update to the Berkeley Bicycle Plan include new projects for the study area ranging from Class I to Class III bicycle paths complementing the existing network of bicycle boulevards and lanes. The City of Berkeley also includes class II.5 bikeway designation for roads that will be signed and have "shared roadway" pavement markers called sharrows that help indicate to road users that the road's right of way must be shared by bicyclists and motor vehicles.

The following bicycle facilities proposed in the 2005 Berkeley Bicycle Plan Update have been completed or are planned for construction by the end of 2007:

- Bike lanes on Gilman Street from San Pablo Avenue to 2nd Street
- New, signed bicycle route running north-south on 4th and 5th Streets between Virginia Street and Channing Way
- Bay Trail extension on the south side of University Avenue connecting the Marina to West Frontage Road
- New signed bicycle route connection to the Bay Trail on Addison Street from 4th Street to Aquatic Park

The following proposed bicycle facilities have not yet been completed:

- New, signed bicycle route running north-south on 5th Street between Virginia and Gilman Streets
- New, signed bicycle routes running north-south through the project area on Bonar, Mabel and Fulton Streets
- New, signed bicycle route running east-west on Camelia Street between 5th and 9th Streets
- New, signed bicycle routes running east-west through the project area on Allston, Parker
- An extension of the 9th Street Bicycle Boulevard into Emeryville
- Improvements to bicycle facilities in the Marina, including a bicycle path on the north-side of Eastshore State Park lands, connecting Frontage Road with Cesar Chavez park; bike lanes on Marina Street from University Avenue to Spinnaker Street; Class II.5 bikeway on Spinnaker Street
- Bike lanes on Bay Street connecting Aquatic Park to Emeryville
- Class II.5 bikeway connecting 9th Street to Emeryville via Heinz, 7th, Folger and Hollis Streets

The Bicycle Plan update also identifies areas to target for improved bicycle parking, including San Pablo Avenue, the Berkeley Marina, Adeline Street and 4th Street between Hearst and Jones Streets.

V COMMUNITY OUTREACH

This chapter describes the approach for gathering community input and summarizes community-identified transportation gaps and needs for the South and West Berkeley Community Based Transportation Plan (CBTP).

A. Community Outreach Approach

This CBTP was able to successfully bring together a wide variety of stakeholders to participate in the collaborative planning process to identify transportation needs and solutions for South and West Berkeley. This section describes community outreach strategies and techniques for public involvement that were used for the South and West Berkeley CBTP.

1. Outreach Objectives

The community outreach program for the South and West Berkeley CBTP had the following general objectives:

- Identify community transportation needs.
- Inform and educate residents about the goals of the community based transportation planning process.
- Educate residents about transportation planning and funding cycles.
- Identify a preliminary list of potential solutions for addressing community-identified transportation needs.

2. Outreach Team

The project team worked closely with Berkeley community-based organizations and a Technical Advisory Committee (TAC) composed of local transportation agency representatives and City of Berkeley staff. These groups provided important input on community outreach, solutions and implementation strategies.

The following community-based organizations assisted with the outreach process:

- Paid Berkeley Youth Works students helped administer surveys at community locations, meetings and events.
- Paid members of Building Opportunities for Self-Sufficiency (coordinated by Urban Habitat) helped administer surveys at bus stops throughout South and West Berkeley.
- West Berkeley Neighborhood Development Corporation (coordinated by Urban Habitat) assisted with coordination and facilitation of focus groups.

A Technical Advisory Committee (TAC) reviewed community input and project recommendations associated with the South and West Berkeley CBTP. The TAC consisted of representatives from the following organizations:

- BART, Planning
- AC Transit, Service Planning
- Paratransit Providers
- City of Berkeley, Office of Transportation

3. Outreach Methods

The outreach efforts in this project provided a variety of forums and participation tools, including focus groups, presentations at community meetings and surveys, to reach the segments of the community most in need of transit services. The target demographic was low-income residents of South and West Berkeley. The outreach effort also targeted subsets within that demographic, including seniors over 65 years, youth under 18 years and disabled persons. To further encourage a meaningful outreach process, information and transportation concepts were presented in a format that was easily understood by the general public so that they felt comfortable providing their input. In addition, materials were made available in Spanish to reach non-English-speaking transit users.

a. Survey Questionnaire

A survey was created to solicit input on transportation needs for the major transportation modes, including AC Transit, BART, walking, bicycling and

paratransit. Respondents were asked to rate and comment on issues for the different modes of transportation they utilized to get around. A person who stated they rode the bus to get to their destinations rated issues such as bus on-time performance, frequency, safety, experience at bus stops, access to schedule information, cost and total trip length. A person who stated they walked to reach many of their destinations was asked to rate issues related to the walking experience, including lighting, quality of pavement and speed of traffic.

A broad sample of opinions was obtained at over twenty neighborhood locations, including these social service centers, shopping areas and bus stops:

- South Branch of Berkeley Public library
- Derby Street Farmers' Market
- Harriet Tubman Senior Center
- West Berkeley Senior Center
- South Berkeley Senior Center
- Public Services Health Clinic on University Avenue
- Senior Housing Development on Alcatraz
- MLK Youth Center
- Mental Health Services Clinic on MLK
- Salvation Army on University Avenue
- Amtrak Station on University Avenue
- Alcatraz/Adeline Shopping District
- Bus stops along Gilman Street, University Avenue, Dwight Way, San Pablo Avenue, 6th Street, Ashby Avenue, Sacramento Street and Martin Luther King Jr., Way

Surveys were administered by Berkeley students working with the Berkeley Youth Works program and members of Building Opportunities for Self-Sufficiency, under the guidance of Urban Habitat and in collaboration with the West Berkeley Neighborhood Development Corporation. An online version of the survey was also available on Berkeley Councilmember Darryl Moore's website. Surveys were also distributed at meetings and workshops.

A total of 598 surveys were received. About ten percent were completed online, 57 percent were administered on a bus or at a bus stop and the remaining 33 percent were administered at the neighborhood locations listed above or at community meetings and workshops.

The survey allowed people to comment on each of the transportation modes they used to get around. As shown in Table V-1 below, 429 people commented on AC Transit issues, 140 people commented on the walking experience in South and West Berkeley, 126 people rated issues regarding BART, 86 people commented on bicycling and 6 on paratransit. Not many people commented on paratransit issues, so a focus group with disabled persons was conducted to supplement survey data.

TABLE V-1 **SURVEY RESPONSES FOR EACH MODE**

Transportation Mode	Number of Survey Responses
AC Transit	429
Walking	140
BART	126
Bicycling	86
Paratransit	6

Most survey respondents – 68 percent – live in the South and West Berkeley area. A portion of the respondents, 36 percent, work in the area, while a little over 20 percent of all respondents both live and work in the area.

The age of survey respondents is fairly representative of the ages of South and West Berkeley residents (Table V-2). There are fewer respondents under the age of 18 and over 80 than the number of people of those ages that reside in this community. The very old and very young are frequently hard to capture through surveys and many may not be capable of responding to a survey. In this study, focus groups with the elderly and parents with children helped provide information about these groups.

A majority of survey respondents – 64 percent – had incomes under $32,000, which is below the poverty level as defined by the Metropolitan Transportation Commission.[1]

TABLE V-2 **AGE DISTRIBUTION OF SURVEY RESPONDENTS**

Age Group	Number of Surveys	Percent of Surveys	Percent in Population
Under 18 years	78	13%	21%
19 to 29 years	150	25%	32% (ages 19 to 34)
30 to 49 years	203	34%	--
50 to 64 years	125	21%	37% (ages 35 to 64)
65 to 79 years	36	6%	7%
Over 80 years	6	1%	4%
TOTAL	598	100%	100%

b. Community-Wide Meetings

Community-wide meetings were held at the Berkeley Transportation Commission meetings to identify transportation needs, review and prioritize solutions and review a draft plan.

Community Meeting 1: Issues Identification and Prioritization (July 2006) A community-wide workshop introduced the project to members of the community. The community and commissioners provided input on issues related to traffic, transit, walking, and bicycling.

[1] As described earlier, MTC has used a measure of twice the federal poverty threshold as a means of capturing the reality of poverty in the Bay Area, given the very high cost of living.

Community Workshop 2: Review and Prioritization of Solutions and Implementation Strategies (March 2007) At this community-wide meeting members of the public were asked to review the proposed solutions and implementation strategies and their prioritization. The feedback was incorporated into a Draft CBTP.

Community Workshop 3: Draft Community Based Transportation Plan A community-wide meeting was held to review the Draft Community Based Transportation Plan. Feedback was received from community members and commissioners and incorporated into a Final CBTP.

c. Meeting with Neighborhood Groups

Project summary presentations were made at neighborhood group meetings. The presentation included background information on the community-based transportation plan, a summary of existing conditions and previously identified transportation gaps, and an opportunity for audience input on transportation needs and solutions. Following the presentations, members of the audience provided input via a facilitated discussion and surveys.

The outreach team presented at meetings of the following groups:

1. West Berkeley Project Area Committee (PAC) – Redevelopment area bounded by Gilman Street, Curtis Street, Dwight Way, and the San Francisco Bay. Committee is currently working on a Circulation Plan (focused on industrial and auto traffic).
2. South Berkeley Neighborhood Development Corporation – Composed of residents and business owners near Ashby BART. Corporation also manages affordable housing sites in neighborhood.
3. School Traffic Safety Committee – Composed of City of Berkeley staff and School District officials.

d. Stakeholder Interviews/Focus Groups

Surveys were supplemented with focus group and stakeholder interviews. Focus group participants represented the core demographic for the commu-

nity based transportation planning: senior, youth, disabled and low-income. These discussions added detail to information gathered in the surveys and provide a more focused discussion of special issues and concerns faced by these groups.

The focus group discussion or interviews began with a brief presentation of background information. Present gaps in the existing transit systems was a starting point for discussion, but participants were encouraged to discuss other concerns and come up with their own suggestions for improvement. Focus groups were facilitated to ensure that input was received from all points of view, ensuring that discussions were not unduly tilted toward one particular point of view.

The following stakeholders participated in interviews or focus groups:

- Members of the Ed Roberts Campus: The campus will be located near the Ashby BART station and will provide programs and services for people with disabilities.
- Day laborers in South and West Berkeley: The day laborers waiting for work along Hearst Street between 2nd Street and San Pablo Avenue represent low-income, non-English speaking residents and workers of South and West Berkeley.
- Residents of the Harrison Street Shelter at 6th Street and Gilman Street: The shelter provides a residence and services to low-income and homeless persons.
- Patients and staff from West Berkeley Family Practice at Addison Street and 6th Street: The practice is a non-profit clinic that serves multi-cultural, low-income persons, families and elderly who live and work in South and West Berkeley.
- Seniors at New Light Senior Center Senior Center: The center has lunches plus other social events for seniors, including persons with low-income and communities of color.

- Students, teachers and staff of the Berkeley Adult School on Virginia Street and San Pablo Avenue: The school serves mainly low–income, non-English speaking students. Hundreds of people attend classes here every day from all over the Bay Area at all hours.
- Staff and participants of the Berkeley Albany YMCA Head Start at 10th Street and University Avenue: The Head Start program serves low-income families that work and live in South and West Berkeley.
- Staff and participants of the South Berkeley Center Head Start at Carleton Street and California Street: The center serves low-income families that work and live in South and West Berkeley.
- Members of the Crossroads Mutual Housing Association: Crossroads Mutual Housing is a resident-managed rental complex at San Pablo Avenue and University Avenue. This focus group included long-term renters, persons of low-income and communities of color.

B. Outreach Results

This section discusses the key issues identified through the surveys, focus groups, interviews and community meetings that were part of the outreach effort described above.

1. AC Transit

Outreach respondents rated the following as the most important issues related to AC Transit bus service:

1. Cost of travel
2. Experience at bus stops
3. On-time performance; Frequency; Transfer time

Table V-3 further describes issues and comments received regarding AC Transit service in South and West Berkeley:

Table V-4 is a summary table describing the topics discussed in each of the focus groups. Since each focus group represents different stakeholders, this table illustrates which issues are most important to particular stakeholders.

Survey respondents and focus group participants had comments about frequency and on-time performance of specific bus routes. The bus route that received the most comments was AC Transit Route #9. Respondents reported that it arrived late in the morning and it stopped running too early in the evening. Many respondents also mentioned that AC Transit Routes #72 and #51 needed to improve on-time performance and frequency. In particular, they noted that the #72 was frequently late in the afternoons and the #51 buses tended to bunch up causing two buses to arrive at once and then no bus to arrive for a long period of time.

TABLE V-3 **AC TRANSIT: SUMMARY OF ISSUES AND COMMENTS FROM SURVEYS**

Cost of taking bus	Expensive with transfer; need high-volume user discount (not monthly pass).
Experience at bus stops	Need to improve safety, comfort and consistency in design of bus stops and shelters; need lighting, more shelter and benches.
On-time performance	Schedule is not reliable; frequent service gaps followed by clustering of buses.
Frequency	Preference for 10 minute service frequency with greater frequency on nights and weekends than currently exists.
Transfer time	Transfer tickets do not last long enough; buses not coordinated at transfer points.
Total trip time	Trips can take two or more hours and wait time is unknown.
Safety at bus stops	Increased illumination at night is required.
Access to information	Need more information, including schedules and maps on buses and at bus stops and real-time bus arrival; need information in languages other than English.
Safety on buses	Full buses create boarding and alighting inefficiencies and create public safety concerns.
Access to bus stop	Most bus routes are within a couple blocks of destination, but quality of walk affects accessibility to bus stop.

Respondents identified the following specific locations for bus stop improvements, including shelter or bench installation, improved lighting, and schedule and real-time bus arrival information:

- San Pablo Avenue and Channing Way
- San Pablo Avenue and University Avenue
- San Pablo Avenue and Ashby Avenue
- San Pablo Avenue and Gilman Street
- San Pablo Avenue and Cedar Street
- 6th Street and Gilman Street
- 6th Street and University Avenue
- 6th Street and Delaware Street
- 6th Street and Harrison Street

TABLE V-4 **AC TRANSIT: SUMMARY OF FOCUS GROUPS**

	Ed Roberts Campus	Day laborers	Harrison Street Shelter	Senior Center	Adult School	Alb. – Berk. Head Start	West Berkeley Family Practice	South Berkeley Head Start	Cross Mutual Housing
Information*	x	x	x	x	x	x	x	x	x
Cost			x		x	x	x	x	x
Experience at bus stops	x		x		x		x	x	x
Experience on buses**	x			x	x		x	x	x
Transfer time			x		x	x		x	x
Transfer ticket			x		x	x		x	x
Frequency			x		x		x	x	x
On-time per-formance			x		x	x		x	x
Service hours			x		x	x		x	x
Safety at bus stops		x	x		x			x	
Length of trip			x		x		x		x
Access to bus stop			x	x		x			x
Safety on buses***		x				x			

* Information refers to bus maps/schedules, bus driver announcements and real-time bus arrival information.

** Experience on buses refers to bus design, safety from falling while the bus is moving.

*** Safety on buses refers to safety from crime

- Derby Street and MLK Jr. Way
- Dwight Way and MLK Jr. Way
- Prince Street and MLK Jr. Way
- Stuart Street and MLK Jr. Way
- Sacramento Street and Ashby Avenue

2. BART

Outreach respondents rated the following as the most important issues related to BART service:

1. Cost of travel
2. Frequency of service
3. Transfer time

Table V-5 further describes issues and comments received regarding BART service in South and West Berkeley:

Table V-6 is a summary table describing the topics discussed in each of the focus groups. Since each focus group represents different stakeholders, this table illustrates which issues are most important to particular stakeholders.

3. Walking

Outreach respondents rated the following as the most important issues related to pedestrian safety and facilities:

1. Speed of traffic; Crossing streets
2. Personal safety; Street lighting
3. Quality of pavement

Table V-7 lists specific locations for improvement of walking conditions in South and West Berkeley:

TABLE V-5 **BART: SUMMARY OF ISSUES AND COMMENTS FROM SURVEYS**

Cost of taking BART	Fares not affordable, especially for families. Need discount for low-income.
Frequency of trains	Weekend and nighttime frequency needs to be increased, including post-peak hour Richmond-SF trains. When direct Richmond-SF trains stop running, trains arrive too infrequently.
Transfer time	Transfers on the weekends and at night (no direct service) take too long. Need real-time bus arrival information at BART stations.
Total length of trip	Transfer and wait time between BART and AC Transit creates long trip times.
Safety at stations	Public safety concerns related to crime, including auto and bicycle theft.
Access to information	BART in-train announcements not intelligible.
Safety on trains	Low-occupancy trains during off-peak hours are perceived to be unsafe.
Access to BART stations	Walking distances, including distance required to access buses, perceived as too long.
On-time performance	Communication of delays are important information and should be prioritized.

Table V-8 is a summary table describing the topics discussed in each of the focus groups. Since each focus group represents different stakeholders, this table illustrates which issues are most important to particular stakeholders.

4. Bicycling

Outreach respondents rated the following as the most important issues related to bicycling safety and facilities:

1. Bicycle theft and vandalism
2. Crossing streets
3. Quality of pavement

TABLE V-6 **BART: SUMMARY OF FOCUS GROUPS**

	Ed Roberts Campus	Day laborers	Harrison Street Shelter	Senior Center	Adult School	Alb. - Berk. Head Start	West Berkeley Family Practice	South Berkeley Head Start	Cross Mutual Housing
Fare system*						x	x	x	x
Cost			x				x	x	
Cleanliness	x			x					x
Information**	x	x	x						
Access to train station	x								x
Transfer time							x		
Frequency			x						

* Fare system refers to the difficulty in consolidating or exchanging tickets.
** Information refers to station maps and schedules, but also in station announcements and wayfinding.

Table V-9 lists specific locations for improvement of bicycling conditions in South and West Berkeley:

5. Paratransit

Outreach for the South and West Berkeley CBTP only achieved limited contact and need identification with paratransit users. Outreach participants generally reported that paratransit was not convenient due to the fact that same-day service was not available and rides often did not arrive on time. Paratransit providers were not able to participate in the plan or the Technical Advisory Committee and therefore were not able to provide any further input.

TABLE V-7 **WALKING: SPECIFIC LOCATIONS FOR IMPROVEMENTS***

Crossing and Speed of Traffic	Lighting	Pavement
Shattuck Ave. at Carleton St.	Adeline St.	Adeline St.
Shattuck Ave. south of Dwight Way	Residential streets	Bonar St. at Addison St.
Shattuck Ave. at Russell St.	Bonar St. at Addison St.	Bonar St. at Channing Way
Channing Way at San Pablo Ave.	Near North Berkeley BART station	5th St. north of Dwight Way
University Ave.	Near Ashby BART station	
Delaware St. south of Sacramento St.	San Pablo Ave.	
Martin Luther King Jr. Way south of Dwight Way	Virginia St.- San Pablo Ave. and Sacramento St.	
Sacramento St. at Prince St.		
Ashby Ave. at California St.		
Curtis St.		
6th St.		
66th St.		
Shattuck Ave. at Carleton St.		
Adeline St.		

*Based on surveys, focus groups, community meeting and stakeholder interviews.

TABLE V-8 **WALKING: SUMMARY OF FOCUS GROUPS**

	Ed Roberts Campus	Day laborers	Harrison Street Shelter	Senior Center	Adult School	Alb. - Berk. Head Start	West Berkeley Family Practice	South Berkeley Head Start	Cross Mutual Housing
Crossing and Speed of Traffic	x		x				x	x	x
Safety from crime		x	x		x			x	x
Street lighting		x	x		x			x	x
Quality of pavement	x				x				

TABLE V-9 **BICYCLING: SPECIFIC LOCATIONS FOR IMPROVEMENTS***

	Crossing	Pavement	Theft and Vandalism
Bicycle Network	Hearst St. at Curtis St.	Aquatic Park	North Berkeley BART station
	Curtis St. at Hearst St.	Channing Way at MLK Jr. Way	Ashby BART station
	Channing Way at Sacramento St.	Gilman St.	
	Channing Way at San Pablo Ave.	9th St.	
Other Streets	Shattuck Ave.	Sacramento St.	
	Shattuck Ave. at MLK Jr. Way	University Ave.	
	Shattuck at Carleton St.		
	Ashby Ave.		
	Ashby Ave. at MLK Jr. Way		

*Based on surveys, focus groups, community meeting and stakeholder interviews.

VI SOLUTIONS

This chapter provides a discussion of solutions to address transportation needs and gaps identified through outreach activities in South and West Berkeley. Where applicable, these strategies build upon existing efforts to improve transportation in South and West Berkeley. The strategies reflect consultation with likely implementing agencies to gauge feasibility and produce realistic cost estimates. Each strategy has been evaluated based on community support, transportation benefits, cost and funding availability, and implementation timeframe.

The strategies are grouped in three major categories:

Transit and Paratransit

- Route 9 Frequency and Span Improvements
- Route 19 Frequency Improvements
- BART Frequency Improvements
- Bus Stop and Shelter Improvements
- Transit Information
- BART to Bus Real-time Arrival Information at BART Stations
- Transit Affordability Strategies
  - Low-income Fare Subsidy
  - AC Transit Weekend Transfer Window Extension
- Subsidized Car Sharing
- Expansion of Berkeley Paratransit Services Taxi Scrip Program

Pedestrian Infrastructure and Facilities

- Improved Signal Timing (Longer Walk Time for Pedestrians)
- Improved Crosswalk Visibility at Uncontrolled Intersections
- Improved Lighting

Bicycle Infrastructure and Facilities

- Providing More Locations for Safe Bicycle Storage
- Educating Cyclists about Bicycle Boulevard Network
- Improved Crossings at Bicycle Boulevards
- Sharrows on Class II.5 Bikeways and Traffic Circle Approaches

Some additional strategies for improving the mobility of low-income residents in South and West Berkeley are discussed at the end of this chapter. While these have not been presented and evaluated as project-level strategies, they nonetheless have the potential to address some of the transportation needs identified through community outreach activities:

- Improve On-Time Performance of AC Transit Services in South and West Berkeley
- Improve AC Transit Driver Courtesy
- Expand or Strengthen West Berkeley Shuttle Services
- Explore the Potential for Implementing Residential Eco Pass Programs
- Explore a Role for the Alameda County Guaranteed Ride Home Program
- Improve Pavement of City Roads
- Improve Pavement of City Sidewalks

A. Evaluation and Ranking

The overall ranking of transportation strategies for South and West Berkeley is based on an evaluation of the following four criteria:

- Community
- Transportation Benefits
- Financial
- Implementation

These categories are explained in more detail in Table VI-1.

Evaluation of each solution for addressing transportation gaps in South and West Berkeley has taken into account the potential funding sources available for implementation. In some cases, potential funding sources—such as Lifeline Transportation Program funding from the Metropolitan Transportation Commission (MTC)—are identified as part of the evaluation discussion. However, it is important to note that even where strategies are well-suited to

particular funding sources, projects will be subject to competitive funding processes.

In addition, in the case of proposed changes in operations, such as transit frequency and span improvements, funding for service start-up will be more easily secured than long-term operating support. Therefore, even when promising sources of funding for the initial implementation exist, concerns related to long-term sustainability may act as constraints to project feasibility.

Project ranking is an inherently subjective process that can only reflect the best knowledge at this time regarding project feasibility, potential benefits, and community support (as determined from outreach results).

TABLE VI-1 **EVALUATION CRITERIA FOR TRANSPORTATION STRATEGIES**

Evaluation Category	Definition
COMMUNITY:	
Level of community support, serves greatest need, serves needs of diverse community	
High ranking	High community support and serves greatest need
Medium ranking	Moderate community support and serves greatest need
Low ranking	Low community support
TRANSPORTATION BENEFITS:	
Number of beneficiaries, number of problems solved, measurable solutions	
High ranking	Large number of residents benefit, solves multiple problems
Medium ranking	Moderate number of residents benefit, solves multiple problems
Low ranking	Small number of residents benefit, solves one problem
FINANCIAL:	
Overall cost, cost per beneficiary, funding availability and sustainability	
High ranking	Low cost to implement (under $50,000), cost effective and financially feasible
Medium ranking	Medium cost to implement ($50,000-$150,000), moderately cost effective and feasible
Low ranking	High cost to implement ($150,000+), high cost per beneficiary
IMPLEMENTATION:	
Implementation time-frame and staging	
High ranking	Short term (1-2 years), or capable of being implemented in stages
Medium ranking	Medium term (3-4 years)
Low ranking	Long term (5+ years), may require large upfront fixed costs

The proposed overall ranking for these strategies is as follows:

Strategy	Ranking				
	C	T	I	F	Overall
Bus Stop and Shelter Improvement	H	M	H	H	**H**
Improved Signal Timing	H	H	H	M-H	**H**
Provide Secure Bicycle Parking	H	MH	H	H	**H**
Route 9 Frequency and Span Improvements	H	H	L	M	**M-H**
Route 19 Frequency Improvements	M-H	H	L	M	**M-H**
Low-income Transit Fare Subsidy	H	H	L	M	**M-H**
Educating Cyclists about Bicycle Boulevard Network	LM	M	MH	H	**M-H**
Improved Crosswalk Visibility at Uncontrolled Intersections	MH	LM	MH	H	**M-H**
Transit Information (Not at Bus Stops)	M	L-M	H	H	**M**
AC Transit Weekend Transfer Window Extension	M	LM	M	H	**M**
Expansion of Berkeley Paratransit Programs	M	L-M	M-H	H	**M**
BART Frequency Improvements	M-H	M-H	LM	M	**M**
Sharrows on Class II.5 Bikeways and Traffic Circle Approaches	M	LM	M	H	**M**
Improved Crossing as Bicycle Boulevards	M	M	M	LM	**M**
Improved Lighting	H	M	L	LM	**L-M**
Subsidized Car Sharing	LM	L	M	M	**L-M**
BART to Bus Real-time Arrival Information	LM	L	M	M	**L-M**

C: Community
T: Transportation Benefits
F: Financial
I: Implementation

H: High
M-H: Medium-High
M: Medium
M-L: Medium-Low
L: Low

B. Transit Strategies

The following strategies respond to gaps identified through CBTP outreach relating to AC Transit and BART services, facilities and amenities, as well as transit affordability.

In most cases, the central barrier to implementation of transit and paratransit strategies is funding, though other constraints such as traffic congestion may apply. It is important to note that the transit frequency and span improvements proposed as part of CBTP strategies would require additional operating funding to implement and sustain.

1. Route 9 Frequency and Span Improvements

AC Transit's Route 9 circulates through the South and West Berkeley plan area, beginning at the Berkeley Marina and traveling east on University Avenue to 6th Street, north on 6th Street to Gilman Street, then east on Gilman and Hopkins Street before turning south on Shattuck, west on Dwight Way, south on 7th Street, and then east on Ashby Avenue and Claremont Avenue. Route 9 serves Downtown Berkeley BART and Ashby BART, as well as other key destinations such as the West Berkeley Senior Center and Alta Bates Medical Center and Hospital. Route 9 passes within two blocks of the proposed West Berkeley Bowl grocery store at Heinz Avenue and 9th Street.

Route 9 currently operates on 20 minute headways during weekday mornings and 30 minute headways in the afternoon. (This mixed headway is the result of congestion on Ashby that constrains transit service levels given current resources.) Service begins around 6:30 a.m. and ends around 9:00 p.m.—the earliest end time for any route in the plan area, and substantially earlier than the Lifeline objective for service until midnight.

South and West Berkeley CBTP outreach respondents cited the need for frequency improvements on Route 9 more than for any other AC Transit route. As discussed in the summary of outreach results, outreach respondents rating the "severity" of transportation issues identified frequency as one of the top

issues of concern (behind cost, experience at bus stops, and on-time performance). Respondents also called for Route 9 to operate later in the evening.

This strategy involves three potential improvements: 1) providing service throughout the day on 20 minute headways (weekdays only), 2) providing service on 15 minute headways, and 3) extending the service day until midnight, seven days a week.

a. Cost of Route 9 Frequency and Span Improvements[1]

1. Decrease from 30-minute to 20-minute headways:

- This increase in service would require an additional 8 cycles (round-trips, including bus layover time) between noon and 8:00 p.m., for 20 additional hours of operation each weekday
- Estimated annual cost is $663,000, or $550,000 net of farebox revenue

2. Decrease from 30 minute to 15 minute headways:

- This improvement would require dedication of 6 additional buses, for a rough annual cost of $1.5 million.

3. Extend span of service to midnight, seven nights a week:

- This would add 7 cycles, or 17.5 hours of operation each day
- Estimated annual cost is $830,375, or $700,000 net of farebox revenue

[1] Estimated costs to implement AC Transit service improvements are conservative estimates that do not take into account the potential cost savings involved with measures such as interlining. Projected farebox recovery reflects the assumption that a lower level of farebox recovery will be achieved for the additional service implemented given the operating costs involved.

TABLE VI-2 **EVALUATION OF ROUTE 9 FREQUENCY AND SPAN IMPROVEMENTS**

Factor	Comments	Ranking
Community	Based on CBTP outreach, there is a high level of support for these improvements	High
Transportation Benefits	A large number of people would benefit, and multiple problems are addressed	High
Financial	The costs for these improvements are high and additional operating funding would need to be identified	Low
Implementation	Could be implemented in the short to medium term	Medium

Overall Ranking: Medium-High

2. Route 19 Frequency Improvements

AC Transit's Route 19 is a key route serving West Berkeley and multiple employment destinations, retail centers, and transit connections in Berkeley, Emeryville, and Oakland. Depending on the time of day (i.e. peak or off-peak) this route is anchored at one terminus by the Downtown Berkeley BART station (peak periods) or North Berkeley BART station (off-peak) and travels east-west on University, and north-south on 6th and 7th Streets, and linking riders with Emeryville, the West Oakland BART station, and downtown Oakland before continuing on to serve Alameda and the Fruitvale BART station. Route 19 currently operates on 30 minute headways, seven days a week, between the hours of 6:15 a.m. and 10:15 p.m.

This strategy involves increasing frequency on Route 19 from 30 minute to 15 minute headways. A proposed "short turn" overlay route[2] would start at Downtown Berkeley BART in the peak and North Berkeley BART in the off-peak, and terminate at 11th Street and Broadway in downtown Oakland,

[2] A short turn overlay involves a new service complementing existing service on a route, but terminating and beginning service in the opposite direction short of the terminus of the existing route. In this case, the proposed overlay would short turn in downtown Oakland instead of continuing to Fruitvale BART as does the existing Route 19.

traveling on 30 minute headways. This overlay would create a combined frequency of 15 minutes along the Route 19 corridor in West Berkeley and would continue to provide a more frequent link to Emeryville, West Oakland, and downtown Oakland for West Berkeley residents.

This route has been selected for proposed improvements based upon the need for increased transit frequency identified by outreach respondents, Route 19's role as an important link to employment and retail centers and transportation connections, and the fact that the current frequency is among the lowest of the routes serving the plan area. However, the needed span of service for the proposed route 19 overlay is unclear based on outreach results and will require further investigation. Options for implementation include operating the short turn route 1) during weekday peaks only, 2) all day on weekdays, or 3) all day seven days a week. The need for funding to implement increased service is the central barrier to implementation.

a. Cost of Route 19 Frequency Improvements

i. Weekday peaks only:

- 12 added cycles (6 in the morning peak, and 6 in the afternoon/evening peak) for 24 additional hours of operation each weekday
- Estimated cost is $3,120 per weekday, or $795,600 annually ($700,000 net of farebox revenue)

ii. All day, Monday through Friday:

- 26 added cycles for 52 additional hours of operation each weekday
- Estimated cost is $6,760 per day (255 weekdays), or $1,723,800 annually ($1,500,000 net of farebox revenue)

TABLE VI-3 **EVALUATION OF ROUTE 19 FREQUENCY IMPROVEMENTS**

Factor	Comments	Ranking
Community	This strategy responds to one of the issues of top importance for outreach respondents	Medium-High
Transportation Benefits	This strategy is likely to benefit a large number of people	High
Financial	The costs for these improvements are quite high and additional operating funding would need to be identified	Low
Implementation	Could be implemented in the short to medium term	Medium

Overall Ranking: Medium-High

iii. All day, seven days:

- 26 added cycles for 52 hours per day
- Estimated cost is $6,760 daily, or $2,467,400 annually ($2,100,000 net of farebox revenue)

3. BART Frequency Improvements

In response to comments from outreach respondents regarding the need for more frequent BART service to Ashby and North Berkeley (frequency being the second most "severe" issue for BART riders, behind cost), this strategy proposes decreasing headways on the Richmond line during off-peak hours on weekdays and all day on weekends. Under this strategy, off-peak weekday headways and weekend headways (all day) would be reduced from 20 minutes to 15 minutes. (This strategy does not provide for an extended span of direct service on the Richmond-Daly City line, but schedules for other lines could be adjusted to maintain timed transfers.) Maintaining timed transfers with trains to San Francisco would be important for maximizing the value of this improvement.

This is an improvement that BART management has been investigating prior to the CBTP process, and at present the major barrier is funding to implement the increase in service. If adequate funding becomes available, BART staff states that changes may be made as soon as early 2008.

a. Cost of BART Richmond Line Frequency Improvements

Estimated costs to implement frequency improvements during the weekday evening off-peak period, Saturdays (all day) and Sundays (all day) break down as follows:

- Reduce evening (off-peak) weekday headways from 20 minutes to 15 minutes: $500,000 annually (total cost for Richmond-Fremont line)
- Reduce Saturday headways (all day) from 20 minutes to 15 minutes (Richmond-Fremont line all day and Richmond-Daly City line 10:00 a.m. – 6:00 p.m.): $500,000 annually
- Reduce Sunday headways (all day) from 20 minutes to 15 minutes (Richmond-Fremont line only): $300,000 annually

4. Bus Stop and Shelter Improvements

Many outreach respondents mentioned the desire for more bus shelters and/or benches, more transit information, and improved lighting at South and West Berkeley bus stops. Overall, the "experience at bus stops" was rated the second most "severe" issue for outreach respondents, second to the cost of transit. Personal safety was a concern cited frequently. This strategy involves installing shelters or benches, transit information, and/or improved lighting (as appropriate) at AC Transit bus stops in South and West Berkeley. Specific locations and needs mentioned by outreach respondents were:

- Gilman and 6th Street: Shelter, improved lighting and bus schedule information (serves Harrison Street Shelter located one block away).
- Stuart and Martin Luther King, Jr. Way: Bench.
- Sacramento and Ashby: Improved lighting and bench.
- San Pablo and Cedar Street: Improved lighting.
- Martin Luther King Jr. Way and Derby Street: Lighting and shelter.
- San Pablo Avenue and Virginia Street (northbound and southbound): Lighting and shelter (serves the Berkeley Adult School located at this intersection).

TABLE VI-4 **EVALUATION OF BART RICHMOND LINE FREQUENCY IMPROVEMENTS**

Factor	Comments	Ranking
Community	While more plan area residents use AC Transit than BART, community support is likely to be high based on outreach results	Medium-High
Transportation Benefits	This strategy would benefit a large number of people, though likely fewer than AC Transit improvements	Medium-High
Financial	This strategy has a high cost and would require additional operating funding	Low-Medium
Implementation	This strategy could likely be implemented in the short to medium term	Medium

Overall Ranking: Medium

a. Shelters and Benches

Currently AC Transit shelters are in place at the major intersections of San Pablo, Sacramento, Martin Luther King, Adeline, and Shattuck in the plan area (such as at Gilman, University, Dwight, and Ashby), as well at some bus stops on secondary streets. Notably, there are no shelters on 6th or 7th Streets, along AC Transit routes 9 and 19 (serving West Berkeley). While these streets are clear candidates for shelter installation, easements from property owners and sidewalk widening may be necessary in this area in order for shelters to be installed. Benches or other amenities such as semi-seats (bus stop poles with integrated seats) may be options where shelter installation is not possible.

AC Transit shelters and benches in Berkeley are installed subject to an agreement between AC Transit, the City of Berkeley and Lamar Outdoor Corporation, the shelter contractor. Shelter and bench requests originate with the City of Berkeley, with AC Transit and Lamar working together to evaluate requests and provide appropriate amenities. Advertising revenue offsets the cost of shelter purchase and installation such that Lamar absorbs these costs. (In the case of benches, after a certain number of advertising shelters are in-

stalled, Lamar will install a bench in another requested location at no cost to the City of Berkeley or AC Transit.) Given this arrangement, there is potential to provide additional shelters and benches in the South and West Berkeley plan area at a low cost, subject to the priorities of the City of Berkeley, the local community, and the shelter contractor.

b. Sidewalk Improvements

In some cases, spot sidewalk work may be required to install Americans with Disabilities Act (ADA) accessible shelters. To the greatest extent possible, such improvements should be coordinated with other pedestrian improvements to ensure that the needs of transit patrons are taken into account when work is being done.

c. Lighting

Insufficient lighting in the South and West Berkeley area was identified as a safety concern by many, including transit patrons. A proposed strategy for implementation of pedestrian-scale lighting on key corridors in the plan area (discussed later in this chapter) would assist by providing improved ambient lighting for bus stops. Where ambient lighting is not sufficient to illuminate bus stops and shelters, a complementary strategy involves installing bus stop-based lighting.

AC Transit has used solar-powered shelter lighting in the past, with uneven experience (lighting tended to work more consistently in the southern areas of Alameda County than in northern communities such as Berkeley). Despite this past experience, several new solar-powered transit lighting products are now available that may warrant further investigation and potentially a demonstration project. For example, the rider-activated, solar-powered LED "i-STOP" (a Canadian product) has been installed by several US transit properties (in a variety of climates) over the past few years, and has the benefit of mounting on a standard bus stop pole. A solar-powered shelter lighting system is also available. The bus stop improvement strategy for the South and West Berkeley CBTP plan area could potentially involve a demonstration of new lighting products.

d. Transit Information at Bus Stops

i. Guide-a-Rides

AC Transit currently provides a map and schedule information as part of shelter installations, and grant-funded Guide-a-Ride style information has been installed at several bus stops in the plan area. Guide-a-Rides are a form of enhanced transit information tailored to specific bus stops or routes that may include maps, departure times, and/or frequencies and hours of operation for the route(s) serving a particular bus stop. Guide-a-Rides are typically mounted on bus stop poles and are often used at stops without bus shelters. AC Transit Guide-a-Ride boxes (or rotating cylinders) are installed on bus stop poles and display a small map and list of departures on each route serving the stop. Information is provided in English and Spanish. A component of this strategy could provide for design, purchase and installation of additional Guide-a-Ride information for selected bus stops without shelters in the South and West Berkeley area. Future Guide-a-Rides might include line maps (as used for AC Transit's Rapid services) to provide a map format that is legible for all riders.

e. Cost of Bus Stop and Shelter Improvements

1. Bus Shelters and Benches

Given the current shelter agreement, bus shelters and benches may be installed at no cost to the public sector, subject to the priorities of the agencies involved and the shelter contractor. However, in order to ensure safe and ADA compliant installations, additional funding may be required for spot sidewalk improvements.

2. Bus Stop and Shelter Lighting

Though other transit lighting products are also available and may be preferred by AC Transit, the following costs for i-STOP and i-SHELTER lighting are provided for the purposed of evaluation:

- i-STOP lighting: $700-$1,000 per stop for pole-mounted solar-powered lighting, depending on quantity purchased and whether edge-lit bus schedule housings are included
- i-SHELTER lighting: $2,600-$3,000 per shelter for solar-powered shelter lighting system, depending on dimensions of shelter

3. Transit Information at Bus Stops

The Guide-a-Ride boxes currently in use by AC Transit can be purchased for approximately $85 each, while the larger information tubes cost approximately $385 each. These estimates do not include the cost of installation and maintenance. AC Transit's Guide-a-Ride boxes are currently installed and maintained by the agency's full-time pole maintenance crew, which performs the work when it is not performing higher-priority work related to transit service changes. Due to the nature of this arrangement, it is difficult to break out the installation and maintenance costs per Guide-a-Ride box. However, AC Transit staff estimate that the percent of Guide-a-Ride boxes lost due to damage and vandalism each year is approximately 10-15% system-wide (although the percent loss varies by neighborhood) and that funding for replacement boxes is important to include in any project.

TABLE VI-5 **EVALUATION OF BUS STOP AND SHELTER IMPROVEMENTS**

Factor	Comments	Ranking
Community	Based on outreach results, community support for the strategy is very high	High
Transportation Benefits	A moderate number of people would benefit	Medium
Financial	All aspects of this strategy could be implemented for relatively low cost	High
Implementation	All aspects of this strategy could be implemented (or initiated) in the short term	High

Overall Ranking: High

5. Other Transit Information Strategies (Other than at Bus Stops)

This strategy serves as a complement to the Bus Stop and Shelter Improvement strategy by improving the availability of transit information at locations other than bus stops. This strategy includes the following elements:

a. Improved Availability of Printed Schedules

Some community residents expressed a desire to have easier access to printed schedules, noting that these are not always available on buses for the routes they regularly take. While AC Transit bus schedule information is posted at the Ashby and North Berkeley BART stations, and AC Transit staff report that paper schedules are provided at BART stations, libraries, and senior centers (among other locations), CBTP outreach indicates that residents would benefit from greater availability of paper schedules elsewhere in the community (perhaps at community centers, faith institutions, key local businesses or similar locations) or on buses. (This might also involve an effort by AC Transit staff to ensure that paper schedules are consistently available at locations such as BART stations.)

It is important to note that a recent survey by AC Transit found that over 60% of passengers have access to the web either at home or at work. Though web access is likely to be lower among low-income individuals, the web will likely continue to grow in importance as a means of accessing AC Transit schedule information.

b. New Types of Transit Information

Given concerns expressed by some outreach respondents regarding whether some South and West Berkeley riders are able to understand complex system maps and transit information while planning transit trips, a bilingual (Spanish-English) or multi-lingual Berkeley-specific or neighborhood-specific transit map is proposed as a supplement to existing transit information. This map could also include a guide to using AC Transit services, purchasing discount passes or other fare products, and connecting to other transportation services such as BART. Key destinations that can be reached on the transit routes serving South and West Berkeley could also be listed (e.g. grocery and drug

stores, educational institutions, medical facilities) for each route, either on this map or an accompanying brochure or leaflet. The "Going for Green" South and West Berkeley neighborhood walking map recently produced by Walk & Roll Berkeley and the Bay Area Nutrition and Physical Activity Collaborative (BANPAC) includes transit routes, stations and general information, and could serve as a good foundation for improving understanding of neighborhood transit services. The neighborhood transit maps developed by the Transportation and Land Use Coalition (TALC) for the City of Alameda as part of the TravelChoice project provide another model that may be of use in South and West Berkeley.

c. Cost of Other Transit Information

Increased distribution (or possibly more consistent distribution) of AC Transit schedules in the plan area could likely be implemented at a very low cost for staff time and materials involved, since AC Transit is already providing paper schedules at various locations in the plan area. For the purposes of evaluation, it is estimated that a new comprehensive, multi-page, two- to four-color neighborhood transit brochure with new maps could be produced for $8,000-$10,000. Printing costs for an initial run of 5,000 copies would likely range between $1,700 and $3,000. However, given the work that has already been done to produce the "Going for Green" map, it is recommended that future efforts to produce a neighborhood transit map explore collaboration with Walk & Roll Berkeley and BANPAC.

TABLE VI-6 **EVALUATION OF OTHER TRANSIT INFORMATION**

Factor	Comments	Ranking
Community	While this strategy proposes an important improvement, based on outreach results, community support would not be as high as for other transit strategies	Medium
Transportation Benefits	A smaller number of people would benefit than other transit strategies; targets one problem as opposed to many	Low-Medium
Financial	These activities could be implemented at a low cost	High
Implementation	These activities could be implemented in the short term	High

Overall Ranking: Medium

6. BART to Bus Real-Time Arrival Information at BART Stations

Community residents seeking increased availability of transit information were particularly interested in information supporting BART to bus transfers, and specifically upcoming (real-time) bus arrivals for the various routes serving each BART Station or its vicinity. This strategy involves providing real-time bus arrival information to passengers arriving at the Ashby and North Berkeley BART stations.

NextBus information for the AC Transit routes serving Fruitvale BART is currently available at LCD (liquid crystal display) kiosks showing a rolling display of real-time AC Transit bus arrivals, and implementation of a similar installation is planned for Downtown Berkeley BART this spring. (These projects were funded from Regional Measure 2, which raised bridge tolls in the Bay Area to fund transportation projects.)

Downtown Berkeley was chosen for this installation in part based on the high number of transfers occurring at that location and the fact that several types of AC Transit service—such as Transbay routes and major trunk routes—serve the station. As part of the Berkeley BART installation, AC Transit is

working with BART to investigate including real-time BART trip information on NextBus displays in addition to AC Transit arrivals. Having BART trip information available outside of the paid area will benefit some riders by enabling them to determine whether to continue their trip via BART or bus.

Providing real-time information for customers requires that vehicles serving individual routes be linked into the NextBus system. At present NextBus arrival information is available for 11 routes either online or at signage installed at select bus stops, such as those served by Rapid service on San Pablo Avenue. By the late spring or early summer of 2007, NextBus information will be available online for 25 routes throughout the AC Transit service area (including routes 9 and 15, serving South and West Berkeley).

Installation of additional NextBus kiosks at additional BART stations (such as Ashby and North Berkeley) is a possibility, but AC Transit staff are also investigating other potentially more cost effective means of providing NextBus information to riders, including implementing a phone-based prediction service that can be accessed via riders' cell phones or phones at stations. A pilot project and further consideration of the equity issues involved will likely precede a decision on the approach to be taken.

a. Cost of BART to Bus Real-Time Arrival Information

It is estimated that the NextBus display at Berkeley BART will cost between $200,000 to $300,000 to implement, with maintenance costs over a seven-year period capitalized as part of this cost. A similar display at Ashby BART or North Berkeley BART would have a lower cost (perhaps closer to $100,000), given that fewer routes and fewer vehicles would need to be tied into the system. A cost estimate for implementation of a phone-based NextBus prediction service is not readily available at this time.

TABLE VI-7 **EVALUATION OF BART TO BUS REAL-TIME ARRIVAL INFORMATION**

Factor	Comments	Ranking
Community	While this strategy proposes an important improvement, based on outreach results, community support would not be as high as for other transit strategies	Low-Medium
Transportation Benefits	This strategy would benefit a relatively small number of people (compared with other strategies)	Low
Financial	This strategy has a high cost, though a somewhat moderate cost compared with other strategies	Medium
Implementation	Given technical issues involved, would likely be implemented in the medium term	Medium

Overall Ranking: Low-Medium

7. Transit Fare Subsidy

The cost of using AC Transit and BART was one of the top issues identified through CBTP outreach. Survey respondents overall rated the cost of AC Transit and BART services as the most severe issue affecting their use of transit (that is, ahead of other issues such as problems with on-time performance, desire for increased frequency, etc.). This strategy proposes a low-income transit fare subsidy as a long-term strategy (to be implemented in conjunction with TransLink rollout), and additionally discusses several actions to support use of existing AC Transit and BART discounts[3] in the short-term.

[3] Several discounts already exist for AC Transit and BART riders. The local adult AC Transit fare is $1.75 for adults, and $.85 for youth age 5-17, seniors 65 and over, and people with disabilities. Transfers are set at $.25 for all groups and are good for use within 1 ½ hours. Adult monthly passes are available for $70.00, while youth passes are sold for $15.00 and seniors and people with disabilities can purchase a monthly discount sticker with a Regional Transit Connection (RTC) discount card for $20.00.

BART offers the following discounted fare products:

- *High value tickets* carrying a 6.25% discount (e.g. ticket with $48.00 in stored value costs $45.00, and ticket with $64.00 stored value costs $60.00)

a. Long-term Strategies: Low-Income Fare Discount

The proposed long-term strategy involves incorporating a low-income fare subsidy into the TransLink program.[4] This subsidy would be targeted at low-income individuals who are not eligible for existing discounted fares offered by AC Transit and BART or otherwise receiving transit subsidies as part of public assistance programs. This strategy would be very expensive, and additional funding would be required—likely from funding sources beyond existing programs--to offset the loss of fare revenue for transit operators as well as support program administration (e.g. qualifying individuals to receive the discount). However, given the characteristics of the TransLink system, there is an opportunity for a more streamlined implementation of such a program (for example, by simplifying billing, payment, and usage tracking for sponsoring agencies). This could result in reduced administrative costs for a fare subsidy program. This approach was also proposed in the West Oakland CBTP,

- *Discount tickets carrying 62.5% discount for persons with* disabilities, Medicare cardholders, and children 5-12 years of age (Red Tickets; adult riders required to carry Regional Transit Connection Discount ID card, Medicare card, DMV-issued parking placard/license plate, or discount card from another transit operator, and picture ID)
- Discount tickets carrying 62.5% discount for seniors 65 and older (Green Tickets; riders required to carry proof of age)
- Discounted tickets carrying a 50% discount for middle and secondary school students ages 13-18, for trips to school and school-sponsored events only, Monday through Friday (Orange Tickets). Tickets are sold by participating schools only.

[4] TransLink is a universal fare debit card ("smart card") that will in the future be usable on all of the Bay Area's public transit systems. Currently a demonstration is underway on AC Transit, Dumbarton Express, Golden Gate Transit, and ferry routes. BART, Muni, and Caltrain will introduce TransLink next, followed by SamTrans and Santa Clara VTA. The card provides for a variety of ways to load value, including an optional "autoload" feature that replenishes value automatically. Cash or the value of passes can also be loaded on the card. Riders use the card by simply tagging a TransLink card reader as they board transit. The fare is automatically deducted from the card balance.

with a recommendation to begin with a pilot transit subsidy program for low-income youth.

A variety of approaches to the type and level of fare subsidy could be incorporated into TransLink depending on policy priorities, from an automatic subsidy built into all or a certain number of trips made by eligible registrants, to a discount for travel during off-peak hours or in off-peak directions, to high volume user discounts (wherein the rider receives free transit trips after a certain number of trips).

The potential costs and benefits of this strategy point to a need for a more regional discussion regarding the appropriate level of subsidy and the resources available to support low-income fare subsidy, including identification of the entities that will take responsibility for qualifying individuals to receive such a subsidy.[5] This type of program could not be sustained from funding available through existing sources, and would require creation of new revenue streams.

If a low-income transit fare subsidy is incorporated into TransLink, it will be particularly important that barriers to use of TransLink by low-income individuals be identified and addressed. Targeted outreach may be required to

[5] Muni's Lifeline Fast Pass program provides an example of an approach to partnership with social service agencies for eligibility screening and sale of discounted fare products to low-income individuals. Under an agreement with Muni, the San Francisco Human Service Agency (HSA) administers the Lifeline Fast Pass program, which makes Muni's $45.00 monthly Fast Pass available for $35.00 for low-income individuals determined to be eligible by the Human Service Agency. (HSA also provides free passes to participants in its programs.) Eligible individuals include those receiving CalWORKS, Food Stamps, and Medi-Cal benefits, or demonstrating receipt of the federal Earned Income Tax Credit or San Francisco Working Families Tax Credit. HSA confirms eligibility and sells passes four business days each month, at two locations. Muni covers the administrative costs incurred by HSA and absorbs the loss of fare revenue attributable to the discount into its existing budget. Muni was awarded funding in last year's Lifeline funding round to expand sales locations to two additional sites.

inform low-income communities about the benefits of the TransLink program and how to use it. In addition, it will be crucial that TransLink vending locations are identified in lower-income neighborhoods such as those identified as part of the CBTP process.

Finally, it is important to note that the existing AC Transit youth fare subsidy is supported by funds generated by the Measure BB parcel tax. Continuing subsidy of youth transit passes beyond the sunset of Measure BB in 2015 can be considered a key element of an overall Fare Discount Strategy for low-income individuals.

b. Cost of Low-Income Transit Fare Subsidy

The cost of a low-income transit fare subsidy would be very high, and would vary based on the level and type of fare subsidy instituted and the eligibility criteria established. Beyond the cost of fare subsidy, administrative costs to quality beneficiaries and manage the program would be significant. Additional costs would be incurred for the incorporation of a low-income fare into the TransLink system.

TABLE VI-8 **EVALUATION OF LOW-INCOME TRANSIT FARE SUBSIDY**

Factor	Comments	Ranking
Community	Community support would be very high (affordability was the most severe issue for both AC Transit and BART riders participating in CBTP outreach)	High
Transportation Benefits	This strategy would benefit a very large number of people	High
Financial	A low-income fare subsidy would be very expensive to implement and sustain and would far exceed the resources of existing programs	Low
Implementation	Given the strategy's reliance on TransLink, this strategy would be implemented in the medium to long-term	Medium

Overall Ranking: Medium-High

c. Short-Term Strategies: Maximizing Accessibility of Existing Discounts

Given the cost and complexity of incorporating a low-income fare subsidy into TransLink implementation, implementation of this strategy is likely to take at least several years under the best of circumstances, there are some actions that can be taken in the short-term to maximize use of existing AC Transit and BART fare discounts (such as those for seniors, people with disabilities, and youth), which are substantial for some groups. Some of these strategies involve what are likely relatively minimal costs (such as commissions paid to fare media vendors), while others may have a larger financial impact on transit agencies (such as increasing participation in discount fare programs by riders who are eligible for discounted fares but who are currently paying full fare).

These potential short-term strategies include:

- **Expanding vending locations for BART and AC Transit discount tickets**. Within the plan area, current BART and AC Transit vending locations are concentrated on Martin Luther King, Jr. Way, Adeline, and San Pablo Avenue (there are five locations with the plan area). Additional vending locations may be warranted in West Berkeley in particular. An effort should be made to ensure that, if possible, both AC Transit and BART discount fare products are available at the same vending locations. Some businesses that serve as transit fare vendors in other parts of the Bay Area (such as Walgreens in San Francisco) may be willing to provide the same service for AC Transit and BART. In West Berkeley, the future West Berkeley Bowl grocery store and the existing Grocery Outlet store at University Avenue and 5th Street are potential vending locations.
- **Ensuring that as TransLink is rolled out, a special effort is made to identify vending locations in CBTP plan areas** such as South and West Berkeley, and that TransLink is also available at locations selling AC Transit and BART fare media. (At present, according to available information, two of the four Berkeley TransLink vending locations nearest to South and West Berkeley do not currently sell AC Transit and BART fare media.)

- **Encouraging participation by schools and students in BART's discounted ticket program for middle school and secondary school students.** While AC Transit has a discounted youth pass, BART offers discount fares for youth solely through participating schools, and these passes are good only for school-related trips. Students sign up for passes with school staff, who in turn place orders with BART.
- **Increasing knowledge of other existing discount fare programs.** Given the variety of discounts already available to qualified AC Transit and BART riders, a logical complement to other strategies for increasing the affordability of transit is increasing the number of eligible low-income individuals taking advantage of existing discounted fares for youth, seniors, and people with disabilities (those sponsored by AC Transit and BART, as well as the Regional Transit Connection discount card). This may involve ongoing marketing of discounts and vending locations, or a more targeted effort, potentially working with community partners.
- **Expanding opportunities for BART ticket refund, replacement, and consolidation.** Refunds for damaged tickets, replacement of Red or Green tickets with small residual values, or consolidation of BART tickets is possible through the mail or at certain locations during limited hours. BART ticket exchange is currently available in downtown Berkeley from 10:00 a.m. to 6:00 p.m. on Wednesdays. Several CBTP outreach respondents commented on the difficulty of accessing these services. While TransLink implementation has the potential to reduce the need for such services (and available funds may best be spent identifying and addressing barriers to TransLink use by low-income individuals), a potential short-term strategy could involve additional staffing of the Berkeley ticket exchange window.

8. AC Transit Weekend Transfer Window Extension

South and West Berkeley CBTP outreach respondents commented that one factor that contributes to the high cost of transit use is the length of the AC Transit transfer window—currently set at 1 ½ hour from the time the transfer is issued. Some riders find that they cannot complete their transfer in this

time period, and therefore have to pay an additional full fare. Because over one-half of AC Transit trips involve a transfer according to the 2002 On-Board Passenger Survey (though many riders are using passes), any relaxation of the transfer policy has the potential to significantly impact AC Transit's farebox revenue. Given this potential financial impact, a limited extension of the transfer window is likely to be more feasible. As Saturday and Sunday headways are longer on many AC Transit routes—causing transfers between routes to take more time than on weekdays—extending the transfer window on weekends (for example, to two hours), would be a logical and more financially feasible approach. Because no current analysis exists related to the impact of extending the weekend transfer window system-wide, it is difficult to estimate the potential financial impact of this change at present. Additional analysis will be required to gauge feasibility and benefits.

a. Cost of AC Transit Weekend Transfer Window Extension

An estimate is not available at this time, but the cost in terms of lost fare revenue for a system-wide implementation would likely be high, despite high rates of pass use among AC Transit riders. Additional analysis would be required to provide an estimate.

TABLE VI-9 **EVALUATION OF AC TRANSIT WEEKEND TRANSFER WINDOW EXTENSION**

Factor	Comments	Ranking
Community	This change would represent a relatively small cost savings for some riders, but any effort to increase the affordability of transit would be likely to have strong community support	Medium
Transportation Benefits	This strategy would likely benefit a smaller number of people in the South and West Berkeley area than several of the other transit strategies (though others in the AC Transit service area would also benefit)	Low-Medium
Financial	This strategy involves a high cost to the agency, though potentially less than some of the other transit strategies	Medium
Implementation	This strategy could be implemented in the short term	High

Overall Ranking: Medium

C. Pedestrian Infrastructure and Facilities

The following strategies respond to gaps identified through CBTP outreach relating to pedestrian circulation and safety. The primary pedestrian circulation and safety issues identified by survey respondents and focus groups participants include the need for major sidewalk, intersection crossing and lighting improvements. South and West Berkeley has several major streets that carry large volumes of automobile traffic creating pedestrian crossing challenges at some locations. Outreach participants further identified areas near transit hubs, schools, and social service centers that have a higher volume of children, seniors, people with disabilities, and members of the general public walking near them and recommended these areas for improvements. The three pedestrian solutions discussed present a range of alternatives for addressing these community-identified concerns.

1. Improve Signal Timing to Allow Longer Walk Time for Pedestrians

Outreach respondents reported having difficulty crossing the street at signalized intersections. Currently, most City of Berkeley traffic signals are timed at a walking speed of approximately 4.0 feet per second. Studies demonstrate that youth, elderly and the disabled do not travel at 4.0 feet per second and, depending on street width and signal timing, may not be allotted sufficient time to safely cross the street. In order to provide sufficient time for a broad demographic of pedestrians a more conservative walking speed should be utilized.[6]

This strategy proposes adjusting signal timing to increase the amount of walk time given to pedestrians by assuming a walking rate of 2.5 to 3.5 feet per second. This interval is supported by the California Traffic Control Devices Committee, which recommends using a walking rate of 2.8 feet per second at locations where older or disabled pedestrian routinely use the crosswalk. In

[6] The Manual on Uniform Traffic Control Devices (MUTCD) recommends consideration of a walking speed of less than 4 feet per second to determine pedestrian clearance time at locations where pedestrians walk slower than 4 feet per second or use a wheelchair to cross the sidewalk.

addition to adjusting signal timing, this solution recommends installation of pedestrian countdown signals that provide information to pedestrians about how much time is left to cross the street.

Changes to signal timing require thorough traffic analysis and may require studying the corridor-wide effects of reducing green time for automobile traffic. In addition, it is likely that changes in signal timing will affect the vehicular Level of Service (LOS) of each intersection. The City, as the implementing agency, must make policy decisions regarding parameters of LOS in order to balance through traffic movement and improvements to pedestrian safety.

The city has already identified the following intersections for improved pedestrian signal timing:

- Intersections Adjacent to Senior and Other Social Service Centers:
  - 6th Street and Hearst Street
  - 6th Street and Gilman Street
  - Adeline Street and Oregon Street
  - Shattuck Avenue and Channing Way (one block off)
  - Sacramento Street and Ashby Avenue
  - Sacramento Street and Dwight Way
  - Sacramento Street and Alcatraz Avenue
  - 9th Street and University Avenue
  - Martin Luther King Jr. Way and Dwight Way
  - Adeline Street and Ward Street
- Intersections Adjacent to Elementary Schools:
  - King Street and Ashby Avenue
  - 6th Street and University Avenue
  - Martin Luther King Jr. Way and Channing Way (one block off)
  - Martin Luther King Jr. Way and Bancroft Avenue (two blocks off)

Re-timing of traffic signals can be done by Berkeley city staff and therefore this improvement can be done without any additional funding sources.

TABLE VI-10 **EVALUATION OF IMPROVING SIGNAL TIMING**

Factor	Comments	Ranking
Community	Moderate community support for pedestrian network improvements, benefits those with the greatest need and a diverse community.	High
Transportation Benefits	Solves one problem, has a large number of beneficiaries and has measurable outcomes.	High
Financial	These improvements need no additional funding source.	High
Implementation	Traffic analysis easy to implement, may be some political obstacle to implementation due to possible reduction in LOS.	Medium-High

Overall Ranking: High

2. Improve Crosswalk Visibility at Uncontrolled Intersections

Outreach respondents identified having difficulty and not feeling safe crossing major streets. Strategies for improving crossing safety include a broad range of measures, including providing pedestrians protected crossing time with a traffic signal or increasing visibility of pedestrian crossings at uncontrolled intersections. Many intersections along major streets in the study area are not signalized. Some of these uncontrolled intersections do not have marked crosswalks further increasing community concern regarding visibility to motorists when making pedestrian crossings at wide major streets. City collision data shows that many pedestrian-auto conflicts occur at these unsignalized and unmarked intersections along these major streets.

This strategy proposes improving pedestrian crossing safety by installing high-visibility crosswalks, such as ladder crosswalks, at uncontrolled intersections along the following major streets (classified as major streets by the City of Berkeley) in the plan area:

- San Pablo Avenue
- Sacramento Street
- Martin Luther King Jr. Way

- Shattuck Avenue
- Gilman Street
- University Avenue
- Ashby Avenue
- Adeline Street

This plan recommends that the city prioritize this list to focus on the major AC Transit corridors and on intersections near the Ashby BART station. The estimated cost for this improvement is from $1,400 to $1,700 to install the high-visibility crosswalk, red curbs and No Parking signs adjacent to the crosswalk.[7] It is estimated that approximately 70 crosswalks and red curbs would be installed at uncontrolled intersections along major streets and the total potential cost is between $98,000 and $119,000.

TABLE VI-11 **EVALUATION OF IMPROVING CROSSWALK VISIBILITY**

Factor	Comments	Ranking
Community	Moderate community support for pedestrian network improvements, benefits those with the greatest need and a diverse community.	Medium-High
Transportation Benefits	Solves one problem, has a large number of beneficiaries, benefits may not be measurable.	Low-Medium
Financial	The improvements have a moderate total cost, but the city could prioritize corridors in order to phase the cost. The project would also have a large number of beneficiaries.	Medium-High
Implementation	These improvements are easily implemented as an addition to existing striping contracts. The projects can be phased on a corridor by corridor basis.	High

Overall Ranking: Medium-High

[7] Communication with Britt Thesen, City and County of San Francisco, Metropolitan Transportation Authority, February 2007.

3. Improve Lighting

Outreach respondents identified personal safety as a significant concern while walking, particularly after dark. Comments received through outreach surveys and focus groups reflected both a concern about crime and about personal ability to confidently traverse areas with low illumination levels. Currently, many of the plan area's streets have cobra-head roadway lighting that adequately illuminates the street at standard thresholds for vehicle circulation. However, in many locations this lighting does not illuminate the sidewalk nor the area of the curb where people step-off to initiate crossing the street.

Outreach respondents were particularly concerned about lighting near bus stops, specifically along University and San Pablo Avenues and along residential streets, specifically those leading to the Ashby and North Berkeley BART stations, including Virginia Street, Hearst Street, Francisco Street, Delaware Street, Adeline Street and Woolsey Street. Pedestrian-scaled lighting at these locations could improve safety from crime as they wait for a bus and would create improved visibility at street crossings.

This solution proposes installation of pedestrian-scaled lighting along the residential streets that directly access the North Berkeley and Ashby BART stations. Improvements should extend out in a ½ mile radius surrounding the BART stations. Given that the City of Berkeley Public Works Department currently has a Residential Street Lighting Policy that prioritizes requests and provides lighting improvements, the City's Public Works and Transportation Departments would need to work with residents along these streets. Transit solution Number 4.c "Evaluation of Bus Stop and Shelter Improvements" addresses the need for lighting at bus shelters.

The cost for materials and installation of one pedestrian-scaled lamp post is approximately $16,000. If one assumes that six to eight lamp posts are installed per block, then lighting improvement to each corridor would cost from $768,000 to $1,024,000.

TABLE VI-12 **EVALUATION OF IMPROVING LIGHTING**

Factor	Comments	Ranking
Community	Community support for lighting improvements is high.	High
Transportation Benefits	May help solve a moderate number of problems, but outcomes are not measurable.	Medium
Financial	These improvements are high cost.	Low
Implementation	This involves a high capital cost as well as ongoing maintenance, but could be implemented on a corridor by corridor basis.	Low-Medium

Overall Ranking: Low-Medium

D. Bicycle Infrastructure and Facility Improvements

Outreach respondents reported that bicycling, particularly crossing high-volume major streets and riding on busy major streets feels unsafe in south and west Berkeley. Major streets, bicycle boulevards and bikeways near Ashby BART were cited as specific locations needing improvements. Respondents also reported that bicycle theft and vandalism is a big problem.

1. Create More Locations for Safe Bicycle Storage at BART stations

As discussed in the summary of outreach results, outreach respondents rating the "severity" of transportation issues identified bicycle theft and vandalism as the top issue of concern (behind speed of traffic, quality of bicycle routes, and quality of pavement). Respondents called for safer bicycle parking at North Berkeley and Ashby BART stations. Although North Berkeley BART is not in the plan area, it serves a lot of people that live or work within the plan area.

This solution proposes creating more options for secure bicycle parking at the North Berkeley and Ashby BART stations. Installation of electronic bicycle lockers (e-lockers) can increase capacity (by allowing multiple users to access the lockers) and improve safety. This solution recommends installation of 34

new e-lockers and 12 retrofit metal lockers to replace the existing plastic bicycle lockers at North Berkeley BART station and installation of 12 retrofit metal lockers at the Ashby BART station. The cost of each e-locker unit is $2,500. The cost of retrofitting existing metal lockers to make them into e-lockers is $1,100. The total cost for installing 34 new and 24 retrofit bicycle lockers at North Berkeley and Ashby BART stations is $115,000.

TABLE VI-13 **EVALUATION OF PROVIDING MORE LOCATIONS FOR SAFE BICYCLE STORAGE**

Factor	Comments	Ranking
Community	Community support for bicycle network improvements is moderate, benefits those with the greatest need and a diverse community.	High
Transportation Benefits	Solves one problem, has a large number of beneficiaries, and has measurable outcomes.	Medium-High
Financial	These improvements are low cost, but have a large number of beneficiaries.	High
Implementation	These improvements are easy to implement once funded.	High

Overall Ranking: High

2. Educate Cyclists about Bicycle Boulevard Network

Many outreach respondents identified high-volume major streets as needing improvement for bicycling conditions. However, Berkeley has a bicycle boulevard network which provides low-volume, bicycle-priority streets as a safe alternative for cyclists. Each of the city's majors is paralleled by a bicycle boulevard and the well-connected network can lead a cyclist to destination points throughout the city. It appears that many people may not be aware of the bicycle boulevard network or how to get around the city using this network.

This strategy proposes an education campaign to promote the bicycle boulevard network and orient riders on how to find their way around on the boulevards. A common theme and message could be replicated through vari-

ous media. Posters could be placed along transit corridors, in bus shelters and on buses. Temporary displays could be set up at locations and events, such as farmer's markets and the entrance to Aquatic Park. A consistent message in multiple languages could also be used for print display, newsletters, a website and training courses.

Redirecting cyclists to bicycle boulevard streets will not only provide a safer traveling environment for cyclists, it will likely improve overall traffic conditions on the arterial streets, including transit service. An outreach programs promoting bicycle boulevard may also attract a latent demand for cycling.

TABLE VI-14 **EVALUATION OF EDUCATING CYCLISTS ABOUT BICYCLE BOULEVARDS**

Factor	Comments	Ranking
Community	Although not requested as a solution by the community, it will create safer cycling conditions, which was identified by the community as a need.	Low-Medium
Transportation Benefits	May contribute to solving a moderate number of problems, could have a large number of beneficiaries, effects are not very measurable.	Medium
Financial	These improvements are low cost, affect a moderate number of beneficiaries.	Medium-High
Implementation	These improvements are easy to implement once funded.	High

Overall Ranking: Medium-High

3. Improve Crossings at Bicycle Boulevards

The plan area's bicycle boulevards provide a well-connected and low-traffic volume street for safe cycling. However, most of the bicycle boulevards intersect with busy majors streets, which can be difficult to cross and can pose a safety hazard.

This strategy proposes improving crossing of major streets along bicycle boulevards by installing bicycle-actuated traffic signals. Outreach participants

were most concerned about major crossings along the Channing bicycle boulevard. Therefore, this strategy proposes installation of bicycle and pedestrian-actuated traffic signals at the following key locations:

- Channing Way and San Pablo Avenue
- Channing Way and 6th Street

Future traffic signals could be located on Virginia Street, another bicycle boulevard. A new traffic signal at Virginia Street and San Pablo Avenue, adjacent to the Adult School, would improve safety for cyclists and pedestrians.

The intersection improvements will provide a protected crossing phase for pedestrians, as well as cyclists. It will likely decrease cyclist travel time and may help to redirect cyclists off of busier streets. The cost of installing traffic signals is about $250,000.

TABLE VI-15 **EVALUATION OF IMPROVING CROSSINGS AT BICYCLE BOULEVARDS**

Factor	Comments	Ranking
Community	Community support for bicycle network improvements is moderate, benefits those with the greatest need and a diverse community.	Medium
Transportation Benefits	Solves a moderate number of problems, has a moderate number of beneficiaries, and has some measurable outcomes.	Medium
Financial	These improvements are high cost, but have multiple beneficiaries.	Medium
Implementation	These improvement may be difficult to implement and will involve much coordination between city and transit agencies.	Low-Medium

Overall Ranking: Medium

4. Install Shared Roadway Bicycle Markings on Class II.5 Bikeways and Traffic Circle Approaches

Survey respondents and focus group participants requested more bikeway demarcations to alert motorists to the presence of cyclists. Currently, the city has bicycle-related pavement markings on bicycle boulevards, along bicycle lanes and to identify bicycle loop detectors. However, the city's bicycle routes are only identified with signage.

This strategy proposes installing shared roadway markings, sometimes referred to as "sharrows" on the plan area's Class II.5 bikeways and on the approach to traffic circles on any of the plan area's bikeways. A sharrow is a shared lane pavement marking roughly 3.5 feet by 8 feet in dimension that has been authorized for use by the California Manual on Uniform Traffic Control Devices. It is used to alert bicyclists and motor vehicle drivers that they must share the same road right of way. The Class II.5 bikeways are those where a bicycle lane is recommended, but due to physical constraints (usually roadway width), cannot be installed.

TABLE VI-16 **EVALUATION OF INSTALLATION OF SHARED ROADWAY BICYCLE MARKINGS**

Factor	Comments	Ranking
Community	Community support for bicycle network improvements is moderate, benefits those with the greatest need and a diverse community.	Medium
Transportation Benefits	Solves one problem, does not have a large number of beneficiaries.	Low-Medium
Financial	These improvements have a moderate cost, but do not have a large number of beneficiaries.	Medium
Implementation	These improvements are very easily implemented	High

Overall Ranking: Medium

E. Paratransit and Other Strategies

1. Expansion of Taxi Scrip Program

While very little comment was received during CBTP outreach related to paratransit strategies, given other targeted outreach that has been undertaken by the Alameda County Transportation Improvement Authority (ACTIA) to identify gaps in services to seniors and people with disabilities throughout Alameda County, it is evident that there are service needs remaining to be addressed. ACTIA's outreach effort has led to implementation of several programs, such as the Measure B-funded Medical Return Trip Improvement Program (MRTIP)—providing an option for return trips from medical appointments when more scheduling flexibility is needed than can be provided by ADA paratransit operated by East Bay Paratransit. In Berkeley, Measure B revenues administered by ACTIA currently fund taxi- and van-based paratransit services provided through the City's Housing Department.

Berkeley Paratransit Services provides both a taxi scrip program and a van voucher program (for non-ambulatory riders). Currently program registrants are provided with $360 worth of free taxi scrip annually or 36 free accessible van vouchers (each good for one one-way trip of up to 10 miles), issued on a quarterly basis. For low-income paratransit users, these subsidies constitute a particularly important lifeline service given the cost of riding East Bay Paratransit. One-way East Bay Paratransit fares are distanced-based and range between $3.00 (for a trip up to 8 miles in length) and $7.00 (for trips to San Francisco beyond Civic Center BART).

To qualify for the Taxi Scrip Program, individuals must be certified as disabled by East Bay Paratransit or be 70 years of age or older, and must have an income no more than 30 percent of Area Median Income. According to program staff, this income threshold ranges from $17,600 annually for a family of one and up to $33,200 for a family of seven. Wheelchair-Van Program registrants must be certified by East Bay Paratransit, but are not subject to income restrictions.

This program has limited capacity to register new riders at present, and the Taxi Scrip Program is only available to very low income individuals as the current income threshold excludes a great number of low-income individuals who would benefit from the services provided. This strategy involves providing additional resources to Berkeley Paratransit Services in allow more low-income individuals to participate to receive service. Targeted outreach to South and West Berkeley residents could be a project component. This strategy would provide for the income threshold for participation in the Taxi Scrip Program participation to be raised to 50 percent of Area Median Income, and potentially provide funding to increase participation by non-ambulatory low-income individuals in the Wheelchair-Van Program.

a. Cost of Taxi Scrip Program Expansion

Given current levels of service, each new registrant in the Taxi Scrip Program would be provided with scrip worth the equivalent of $360 of taxi service annually. Each new registrant in the Wheelchair-Van Program would receive 36 vouchers costing the program $28 each, for a total of approximately $1,000 worth of accessible van service per new registrant annually. Additional funds may be needed to support targeted outreach to South and West Berkeley residents. It is difficult to estimate the new demand for these services that would be generated by raising the threshold for participation in the Taxi Scrip Program to 50 percent of Area Median Income. The level of outreach conducted by City of Berkeley staff would likely be a key factor in generating demand. Implementing this change would require City of Berkeley staff to closely monitor available resources in order to balance the number of new registrants with the level of service that can be provided to all registrants.

TABLE VI-17 **EVALUATION OF TAXI SCRIP PROGRAM EXPANSION**

Factor	Comments	Ranking
Community	Community support is unclear based on outreach, but it is likely to be moderate.	Low-Medium
Transportation Benefits	This strategy would benefit a relatively small number of people, but would benefit individuals with fewer mobility options than others.	Low-Medium

Financial	Costs are relatively low but with moderate cost-effectiveness	Medium-High
Implementation	This strategy could be implemented in the short term if funding were available.	High

Overall Ranking: Medium

2. Subsidized Car Sharing

While South and West Berkeley CBTP outreach respondents did not identify the need for subsidized car sharing by name, improved access to car share services for low-income individuals could provide an important complement to enhanced transit services and facilities by providing a new mobility option and improved access to essential destinations such as medical facilities, grocery stores, and other services.

There are three car sharing programs that serve the City of Berkeley. City CarShare, Flexcar and Zip Car each have vehicles parked in various locations throughout the city, where program members can pick-up and drop-off cars after reserving them and using them for an hourly rate. Overall, Berkeley car sharing vehicles are concentrated in downtown Berkeley near the UC Berkeley campus; however, five car share vehicles are currently parked at the Ashby BART station and another four vehicles at the North Berkeley BART station.

Other communities implementing car share services targeting low-income individuals have documented barriers to car share participation that particularly affect low-income residents, beyond the cost of using vehicles. These include barriers to program eligibility, such as lack of a driver's license, poor credit history, and lack of a checking account. Language barriers can also inhibit participation when information is produced solely in English. To overcome barriers related to program design, agencies implementing low-income car share programs have moved away from credit check and security deposit requirements, or have subsidized deposits.

Subsidy structures for low-income car share programs have been based on the location of vehicles (e.g. the City of Seattle paying half the cost of usage of car-share vehicles placed in targeted low-income areas), as well as on car share usage by registered individuals accessing car share vehicles in any location. MTC has taken the latter approach in a program funded by the Low-Income Flexible Transportation Program (LIFT) and implemented by City CarShare in San Francisco. The San Francisco program currently supports car share use by 60 CalWORKS registrants, with LIFT funds subsidizing application fees and deposits, as well as half of usage charges. Drivers are invoiced directly for the remaining usage charges. (Placing additional vehicles in low-income areas was also a component of this project.) The West Oakland Community-Based Transportation Plan also proposed a subsidized car sharing program, involving extending 15 hours and 50 miles per month of free or low-cost car share access to 100 low-income individuals or groups.

a. Cost of Subsidized Car Sharing Program

Based on the level of service proposed in the West Oakland CBTP (15 hours and 50 miles of monthly usage), City CarShare's current fee structure (as an example), and a 50 percent subsidy from the public sector, the cost of implementing a subsidized car sharing program for 100 individuals would break down as follows:

- **One-time costs** ($30 application fee and $300 refundable security deposit) for 100 participants: $33,000
- **On-going usage costs and monthly membership fee** (assuming 50 percent discount) for 100 participants: $55,200 annually or $552 annually per participant

TABLE VI-18 **EVALUATION OF SUBSIDIZED CAR SHARING PROGRAM**

Factor	Comments	Ranking
Community	Community support is unclear based on outreach, but car sharing could provide another option for addressing mobility issues	Low-Medium
Transportation Benefits	This strategy would benefit a relatively small number of people.	Low
Financial	Costs are relatively low but with moderate cost-effectiveness	Medium
Implementation	Could be implemented in the short to medium term	Medium

Overall Ranking: Low-Medium

F. Other Community-Identified Needs or Potential Approaches

Several approaches have not been presented as project-level strategies, but may have potential for improving the mobility of low-income residents in South and West Berkeley. These strategies are briefly described below.

- **Improve On-time Performance of AC Transit services in South and West Berkeley.** Poor on-time performance was identified as the second most severe issue affecting AC Transit riders in CBTP outreach. Several comments were received about "bus-bunching"—wherein poor schedule adherence results in long wait times followed by several buses arriving all at once—particularly on Route 51. Any improvements to on-time performance on South and West Berkeley transit routes will improve mobility for transit riders in the area. AC Transit is currently studying Route 51 in collaboration with the City of Berkeley and other cities served by the route in an effort to identify ways to make service more reliable. Other opportunities for the City of Berkeley and AC Transit to collaborate in identifying ways to improve transit speed and reliability (such as signal timing) should be pursued.
- **Improve AC Transit Driver Courtesy.** Several outreach respondents commented that there is room for improvement in some AC Transit

drivers' level of courtesy towards passengers. Particular concerns included discourtesy to seniors, people with disabilities, and those traveling with small children in strollers who may need extra time to safely board vehicles. Examples of discourteous behavior include passing up passengers who may be perceived to require extra time in boarding and not providing some passengers adequate time to take a seat before accelerating from a bus stop. Given this feedback, additional emphasis in these areas may be warranted in AC Transit driver training programs.

- **Expand or Strengthen West Berkeley Shuttle Services**. The West Berkeley Shuttle operates between the Ashby BART station and 6th and 7th Streets in West Berkeley, serving Ashby Avenue and Dwight Way as it passes through the South Berkeley neighborhood. There may be an opportunity to serve residents' needs by expanding the shuttle's span of service (it currently operates only during peak periods), or by adding a small number of stops in the South Berkeley area (currently there are no stops east of San Pablo Avenue other than the Ashby BART stop). Given that the shuttle is sponsored in part by West Berkeley employers, the needs of sponsors would need to be balanced with other local needs if changes were made to the shuttle's service design.

- **Explore the Potential for Implementing Residential Eco Pass Programs**. While many Eco Pass programs have been implemented by large employers seeking to reduce parking demand (such as colleges and universities), a residential Eco Pass program is another potential strategy for reducing the cost of using transit for South and West Berkeley residents. Residential Eco Pass programs have been implemented through bulk purchase of transit passes at deeply discounted rates by property managers on behalf of residents of their buildings or developments (Santa Clara County; Portland, Oregon). Another approach implemented in Boulder, Colorado involves purchase of Eco Passes for residents of an entire neighborhood or smaller neighborhood unit such as a number of blocks. In the Boulder program, neighborhood volunteers collect contributions from residents annually, and once the financial threshold established by the transit agency is achieved, all neighborhood residents are eligible to receive a transit pass.

- **Explore a Role for the Alameda County Guaranteed Ride Home Program.** The Alameda County Guaranteed Ride Home Program, administered by the Alameda County Congestion Management Agency (ACCMA), provides participants with a ride home from work via taxi or rental car in the case of an emergency (e.g. family illness, unscheduled overtime), at no cost. Employers with 75 or more employees are eligible to register for the program (also at no cost). Participants can use the service provided that they traveled to work via public transportation, carpools or vanpools, bicycle or by walking. The service is available to participants up to 6 times in each calendar year. This program may have capacity to add additional participants and there may be potential for targeted marketing to employers of South and West Berkeley residents as a means of supporting transit use at no additional cost to riders.
- **Improve Pavement of City Roads.** Berkeley maintains a rolling 5-Year Street Rehabilitation Plan for paving and reconstructing City streets. The plan is generated with the aid of a sophisticated Pavement Management System developed by the Metropolitan Transportation Commission. The Street Repair Policy, in addition to considering street condition, type of repair required, cost effectiveness, amount and type of traffic, also considers whether a street is a bikeway. This city's Street Rehabilitation Plan should address the community's concerns with quality of street pavement for bicycling.
- **Improve Pavement of City Sidewalks.** There are approximately 300 miles of concrete sidewalks in Berkeley. The city's sidewalk repair program is designed for systematic maintenance in which the segmented phases of work are defined, beginning from the Civic Center area and spiraling outward toward the city limits. The city's Capital Improvement Program allocates funds to be expended over a five year period to repair and replace sidewalks in this systematic way. [8] The existing repair program should adequately address the community's needs for improved sidewalk condition.

[8] City of Berkeley General Plan, Transportation Element, 2001.

VII FUNDING AND IMPLEMENTATION

This chapter provides synopses of various funding sources relevant to planning and/or implementation of South and West Berkeley transportation strategies. This chapter focuses primarily on funds available through grant programs (with some exceptions) though other sources are used to support relevant activities such as transit operations in Alameda County.[1] It is important to note that many of the funding sources discussed below are already in use by relevant agencies (e.g. Federal Transit Administration grant programs). For example, while funding sources, such as the Federal Transit Administration's 5307, 5309 and 5310 programs and California's State Transit Assistance are applicable to implementation of South and West Berkeley strategies, available funds may be fully committed to existing operations at this time. Many of the grant programs discussed below are routinely oversubscribed, with a variety of needs competing for funding. Given this reality, despite the large number of funding sources discussed below, securing funding for implementing improvements described in this plan is likely to be an ongoing challenge. Development of other revenue streams beyond those discussed below may be necessary to implement some strategies, such as low-income fare subsidies on a large scale.

Sources of public sector funding have been roughly categorized into three groups: federal, State, and local/regional programs. A final section discusses additional funding opportunities beyond these publicly-funded programs.

A. Federal Programs

The Federal Transit Administration (FTA) offers a number of funds, as do other federal agencies and programs.

[1] For example, AC Transit and BART receive property and sales tax revenues in support of operations.

1. FTA Section 5303 Metropolitan Planning Program

Section 5303 funds are distributed to regions based on urbanized area population and an FTA formula in support of planning activities. Section 5303 supports transit planning activities such as development of Short-Range Transit Plans. Section 5303 funds are a potential source for supporting additional planning work necessary prior to implementing transit service improvements.

2. FTA Section 5307 Urbanized Area Formula Grant Program

Section 5307 provides support for transit capital projects (such as vehicle purchase) on a formula basis, with funding provided to each urbanized area split between transit operators. Section 5307 funds can also be used to support preventive maintenance activities.

3. FTA Section 5307 Transportation Enhancements

Transit operators in urbanized areas with over 200,000 in population are required to set aside 1% of 5307 funds for Transportation Enhancements, which may include bus stop improvements and improved bicycle and pedestrian access to transit, among other activities.

4. FTA Section 5309 Capital Program

FTA's Section 5309 funds capital improvements and/or vehicle purchase for bus transit providers in areas over 50,000 population on a discretionary basis. Applications for 5309 funds must be consistent with MTC's Regional Transportation Improvement Program as well as the State Transportation Improvement Program. Section 5309 also provides funds for Fixed Guideway Modernization supporting capital projects to modernize or improve fixed guideway systems including purchase and rehabilitation of rolling stock, track, line equipment, and structures, as well as operational support systems, passenger stations and terminals, maintenance facilities and equipment, and system extensions.

5. FTA Section 5310 Transportation for Elderly Persons or Persons with Disabilities

Section 5310 provides formula funding to States for the purpose of assisting in meeting the transportation needs of the elderly and persons with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate for meeting these needs. Funds are obligated through a statewide grant application, with initial project and scoring occurring at the local level (i.e. coordinated through MTC in the Bay Area in conjunction with the nine counties). Capital projects such as purchase of vehicles and related equipment are eligible.

6. FTA Section 5316 Jobs Access Reverse Commute (JARC)

The purpose of this federal grant program is to develop transportation services designed to transport welfare recipients and low-income individuals to and from jobs, and to develop transportation services for residents of urban centers and rural and suburban areas to suburban employment opportunities. Grants may finance capital projects and operating costs. Formerly a competitive program administered directly by the Federal Transit Administration, the JARC program has been formularized and is now administered by MTC. MTC prioritizes JARC funding for distribution through a competitive process as part of the Lifeline Transportation Program.

7. FTA Section 5317 New Freedom Program

New Freedom is a new program under the new federal transportation funding act, SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users), that will provide capital and operating support for services and facility improvements that address the transportation needs of persons with disabilities beyond those required by the Americans with Disabilities Act (ADA). Grants will be competitively awarded, and eligible recipients include both public agencies and non-profit organizations.

8. Congestion Mitigation and Air Quality Improvement Program (CMAQ)

CMAQ is a federal program supporting a range of projects that reduce transportation-related emissions in air quality nonattainment areas. Eligible projects include (but are not limited to) transit capital projects (including purchase of clean fuel transit vehicles), operating expenses for new transit services (for the first three years of operation only), and bicycle and pedestrian facilities programs. CMAQ funds are received by MTC. CMAQ funds were included in the coordinated bicycle and pedestrian funding program administered by the Alameda County Transportation Improvement Authority (ACTIA) and Alameda County Congestion Management Agency (ACCMA) for FY 06-07.

9. Surface Transportation Program (STP)/Transportation Enhancements Activities

This funding source is a 10% set-aside from the federal Surface Transportation Program that provides funds for a variety of "transportation enhancements" that go above-and-beyond standard transportation projects, including pedestrian and bicycle facilities, safety and education for pedestrians and bicyclists, and rail trails. Transportation Enhancements are selected and programmed through the Regional Transportation Improvement Program and State Transportation Improvement Program.

10. Safe Routes to School (SRTS)

Building on Safe Routes to School programs initiated in California and other states, a new federal program was initiated under the new federal transportation funding act, SAFETEA-LU. The program is intended to promote bicycling and walking to school among children in kindergarten through 8th grade and to provide for increased safety for children bicycling and walking. Both infrastructure projects and non-infrastructure projects (such as educational programming) are eligible for funding. Eligible applicants include State, local and regional agencies; schools or school districts; and non-profit organizations. Caltrans administers the SRTS program through its Division of Local Assistance. Annual apportionments to California for the federal

SRTS program are expected to grow from $14.8 million in 2007 to $23 million in 2009. This new federally-funded program will eventually supplant the pre-existing California Safe Routes to School Program (currently set to sunset on January 1, 2008).

11. Community Development Block Grant Program (CDBG)

The CDBG program is administered by the US Department of Housing and Urban Development and provides funds on an annual basis to support community development activities in urban areas. While the majority of Berkeley CDBG funds have been used in recent years for housing, homelessness and childcare programs, construction of public facilities and improvements are eligible uses for CDBG funds.

12. Hazard Elimination Safety Program (HES)

The Hazard Elimination Safety Program (HES) is a federal safety program that provides funds for safety improvements on all public roads and highways (including publicly-owned bicycle and pedestrian pathways). These funds serve to eliminate or reduce the number and/or severity of traffic accidents at locations selected for improvement. Eligible activities include engineering, right-of-way acquisition, and construction. The program is administered by Caltrans, and funding is awarded annually on a competitive basis.

13. Transportation and Community and System Preservation Program (TCSP)

The Transportation, Community, and System Preservation Program is a federal initiative administered by the Federal Highway Administration (FHWA) that funds research and grants to investigate the relationships between transportation, community, and system preservation plans and practices and to identify private sector-based initiatives to improve such relationships. States, metropolitan planning organizations and local governments are eligible for grants funding activities consistent with the following goals:

- Improve the efficiency of the United States transportation system.
- Reduce environmental impacts of transportation.

- Reduce the need for costly future public infrastructure investments.
- Ensure efficient access to jobs, services, and centers of trade.
- Examine community development patterns and identify strategies to encourage private sector development patterns and investments that support these goals.

The federal transportation funding act, SAFETEA-LU, authorized the TCSP Program through FY 2009. A total of $270 million is authorized for this Program in FY's 2005-2009. While only Congressionally-designated projects (earmarks) have been funded since FY 2000, according to a January 2007 FHWA memorandum, it appears that funds may be awarded through a competitive process in FY 2007. FHWA Division Administrators have been instructed to work with State transportation departments to prepare each State's project applications.

B. State Programs

Funds for transportation-related projects are available from the Transportation Development Act (TDA), and from various State programs and agencies including the California Department of Transportation (Caltrans) and the California Office of Traffic Safety (OTS).

1. Transportation Development Act/State Transit Assistance Funds

TDA funds are a key source of operating revenue for transit agencies throughout California, including AC Transit and BART. TDA funds are made up of sales tax and gasoline tax revenues (Local Transportation Fund and State Transit Assistance accounts, respectively) and can be used both for capital and operating expenditures (and as match for federal capital funding).

2. Transportation Development Act Article 3

TDA funds generated from a ¼ cent of the general state sales tax are returned to the source counties to fund transportation projects. TDA Article 3 provides for 2% of County TDA funds to be set aside for bicycle and pedestrian

projects. Eligible projects include right-of-way acquisition; planning, design and engineering; and construction of bicycle and pedestrian infrastructure (including retrofitting to meet ADA requirements) and related facilities. In Alameda County, the Alameda County Congestion Management Agency (ACCMA) manages the project selection process.

3. Caltrans Community-Based Transportation Program (CBTP)

The Caltrans CBTP grant program is primarily used to seed planning activities that encourage livable communities. (This funding source is separate and distinct from MTC's Community-Based Transportation Planning program, which funds planning activities in MTC-identified communities of concern, such as South and West Berkeley.) Caltrans CBTP grants assist local agencies to better integrate land use and transportation planning, to develop alternatives for addressing growth and to assess efficient infrastructure investments that meet community needs. These planning activities are expected to help leverage projects that foster sustainable economies, increase available affordable housing, improve housing/jobs balance, encourage transit oriented and mixed-use development, expand transportation choices, reflect community values, and include non-traditional participation in transportation decision-making. CBTP grant-funded projects demonstrate the value of these new approaches locally, and provide best practices for statewide application.

4. Caltrans Environmental Justice: Context-Sensitive Planning

The Caltrans Environmental Justice program provides funding for planning-related projects that promote environmental justice in local planning, contribute to early and continuous involvement of low-income and minority communities in the planning and decision-making process, improve mobility and access for underserved communities, and create a business climate that leads to more economic opportunities, services and affordable housing.

5. Bicycle Transportation Account (BTA)

The Caltrans Bicycle Transportation Account provides State funds on a competitive basis for City and County projects that improve safety and convenience for bicycle commuters, including design, engineering, and construction

of bicycle lanes and paths. To be eligible for BTA funds, a City or County must adopt a Bicycle Transportation Plan that complies with Streets and Highways Code Section 891.2 within four years prior to the year of application. $5 million is available in the FY 07-08 funding cycle.

6. Office of Traffic Safety (OTS) Grants

The Office of Traffic Safety (housed with the California Business, Transportation and Housing Agency), annually requests proposals for projects addressing traffic safety problems from public agencies, including school districts and public safety providers. Priority project areas include promoting bicycle and pedestrian safety by raising awareness among pedestrians, bicyclists, and motorists through education, enforcement and engineering activities (among others).

7. Safe Routes to School (SR2S)

The California State Safe Routes to School Program pre-dates the newer federal program established under SAFETEA-LU in 2005 (discussed in the section above). This program provides funding for sidewalk improvements, traffic calming and speed reduction measures, pedestrian and bicycle crossing improvements, on-street and off-street bicycle facilities, and traffic diversion improvements. The State program was established by State legislation with a sunset date of January 1, 2008. With the passage of SAFETEA-LU, federal Safe Routes to School (SRTS) funds were made available to states nationwide. For this reason, current State statutes will be revised to reflect SAFETEA-LU provisions as the State program is phased out. A final cycle of State Safe Routes to School funding is planned prior to the termination of the State program.

C. Regional/Local Programs

Funds are available from Bay Area regional agencies, such as MTC, as well as from Alameda County.

1. Lifeline Transportation Program

MTC's Lifeline Transportation Program is a grant program supporting community-based transportation projects that are developed through collaborative processes involving substantial outreach (such as CBTPs), address transportation gaps in low-income communities, and improve the range of transportation choices for low-income individuals, including elderly and disabled residents of low-income communities. Lifeline funds for the initial round of funding (FY 05-06 through FY 07-08) were derived from Congestion Management and Air Quality (CMAQ), (Job Access and Reverse Commute) JARC, and State Transit Assistance (STA). Funding amounts are assigned to each county according to the county's share of the regional population living in poverty. During the FY 2005-06 through FY 2007-08 Lifeline funding cycle, approximately $18 million was available for the region. Alameda County received approximately $5 million of Lifeline Transportation Program funding, given that it represents 27% of the region's population living in poverty. Following this initial Lifeline funding cycle, MTC has committed $216 million over the next 25 years through its long-range transportation plan.

2. Transportation for Livable Communities (TLC)

MTC's Transportation for Livable Communities Program was created to support community-based transportation projects that revitalize downtown areas, commercial cores, neighborhoods, and transit corridors, by enhancing their amenities and ambiance and making them places where people want to live, work and visit. TLC provides funding for projects that provide for a range of transportation choices, support connectivity between transportation investments and land uses, and are developed through an inclusive community planning effort. TLC is now programmed through the end of the current federal transportation program which ends in 2009. A call for projects is expected in spring or summer 2008.

3. Regional Bicycle and Pedestrian Program

MTC created the Regional Bicycle and Pedestrian Program in 2003 to fund construction of the Regional Bicycle Network, regionally-significant pedestrian projects, as well as bicycle and pedestrian projects serving schools or

transit. MTC has committed $200 million in the Transportation 2030 Plan to support the regional program over a 25-year period ($8 million each year). The program is administered through the county Congestion Management Agencies (ACCMA in Alameda County). Regional Bicycle and Pedestrian Program funds were also included in the coordinated bicycle and pedestrian funding program administered by ACTIA and ACCMA in FY 06-07.

4. Transportation Fund for Clean Air (TFCA)

The Transportation Fund for Clean Air is a grant program funded by a $4 surcharge on motor vehicles registered in the Bay Area, with approximately $22 million per year in revenue. TFCA's goal is to implement cost-effective projects that will decrease motor vehicle emissions. The fund covers a wide range of project types, including purchase or lease of clean fuel buses, purchase of clean air vehicles, ridesharing programs to encourage carpool and transit use, bicycle facility improvements such as bicycle lanes, bicycle racks, and projects to enhance the availability of transit information.

Funds are available through two main channels: the Regional Fund administered by Bay Area Air Quality Management District (BAAQMD) (60% of revenues) and the County Program Manager Fund (40% of revenues), which is administered by the Bay Area's County Congestion Management Agencies (ACCMA in Alameda County). Any public agency within the Bay Area Air Quality Management District's jurisdiction can apply for TFCA funds, either through the BAAQMD or the relevant Congestion Management Agency. Non-public entities can also apply for TFCA grants, directly or via a public agency, to sponsor and implement clean air vehicle projects only.

5. Safe Routes to Transit

Funded through Regional Measure 2, this program supports projects that enhance pedestrian and bicycle access to transit stations. Funding is awarded competitively. The program is administered by the Transportation and Land Use Coalition (TALC). TALC is a Bay Area partnership of over 90 groups that develops and forwards a range of projects, programs, and campaigns sup-

porting sustainability and equity in the land use, housing, and transportation arenas.

6. Measure B

Measure B is Alameda County's half-cent transportation sales tax, which is administered by the Alameda County Transportation Improvement Authority (ACTIA). Measure B allocates 40% of total revenues to capital projects identified in Alameda County's 20-Year Transportation Expenditure Plan. The remaining 60% of total revenues is allocated to the local jurisdictions (cities, County transit agencies and paratransit providers in Alameda County) for five programs:

- Local transportation, including streets and roads (22.34% of the net revenues). These funds are quite flexible and can be used for to address local transportation priorities, including transit and bicycle and pedestrian improvements.
- Mass transit (21.92% of the net revenues). Funds are provided to support AC Transit operations as well as those of other Alameda County transit operators.
- Special transportation for seniors and people with disabilities (10.45% of the net revenues). These funds are distributed as "base program" pass-through funds to local jurisdictions (including the City of Berkeley) and East Bay Paratransit, as well as through the Gap Grant Program, which provides funding to public agencies and non-profit organizations to address gaps in services.
- Bicycle and pedestrian safety (5.00 percent of the net revenues). Seventy-five percent of these funds are local pass-through funds to cities and the County and are allocated based on population, and 25 percent are reserved for countywide planning and projects, including the Measure B Bicycle and Pedestrian Countywide Discretionary Fund.
- Transit Center Development (0.19 percent of the net revenues). These funds are available to cities and Alameda County in support of projects promoting residential and retail development near transit centers.

ACTIA and the Alameda County Congestion Management Agency (ACCMA) administer a coordinated bicycle/pedestrian funding program, with funding drawn from the Measure B Bicycle and Pedestrian Countywide Discretionary Fund, the Regional Bicycle and Pedestrian Program, and the Congestion Mitigation and Air Quality Improvement Program (CMAQ). Bicycle and pedestrian projects, programs and master plans are eligible to receive funding from these sources.

D. Additional Funding Opportunities

1. Redevelopment Funds

There is one existing redevelopment area that currently generates revenues for projects in West Berkeley, and is a potential funding source for South and West Berkeley CBTP transportation strategies. The West Berkeley Redevelopment Area is bounded by I-80, University Avenue, 6th Street, and Cedar Street. Capital projects and financing within the West Berkeley Redevelopment Area are managed by the Berkeley Redevelopment Agency (BRA). The BRA's current transportation-related efforts in West Berkeley include pedestrian and bicycle route improvements, parking and sidewalk improvements, and an improved linkage between Aquatic Park and the Pedestrian/Bicycle Bridge to 4th Street and the Rail Stop.

2. City of Berkeley Capital Budget

While many of the funding sources above may be folded into the capital budget at the City level, other funds generated or received locally may be programmed to fund projects such as bicycle and pedestrian infrastructure and bus shelter improvements.

3. Mello-Roos Community Facilities Districts

The Mello-Roos Community Facilities Act of 1982 allows any county, city, special district, school district or joint powers authority to establish a Mello-Roos Community Facilities District (CFD) which allows for financing of

public improvements and services through taxation within the district. The services and improvements that Mello-Roos CFDs can finance include streets, sewer systems and other basic infrastructure, police protection, fire protection, ambulance services, schools, parks, libraries, museums and other cultural facilities. A CFD is created by a sponsoring local government agency and includes all properties that will benefit from the improvements to be constructed or the services to be provided. A CFD cannot be formed without a two-thirds majority vote of residents living within the proposed boundaries. Once the CFD is approved, a Special Tax Lien is placed against each property in the CFD and property owners pay a Special Tax each annually.

4. Private Sector Contributions

a. Employers and Local Businesses

Local businesses and employers can serve as partners in improving transportation in South and West Berkeley. Employers may subsidize transit passes for employees, or even provide shuttle services for employees who cannot travel to work easily on transit or using other modes. The existing West Berkeley Shuttle, which is administered by the Berkeley Gateway Transportation Management Association, and sponsored by the City of Berkeley and corporate sponsors, is an example of public and private sectors working together to meet the community's transportation needs. Local businesses may also be willing to provide support for other improvements, such as enhanced transit amenities at bus stops serving their location. Adopt-a-stop programs, in which individuals, businesses or community groups partner with transit agencies to clean and beautify bus stops and shelters, have been successfully implemented by several transit agencies across the country. Under these programs, Adopt-a-Stop volunteers agree to keep their stop or shelter clean and to report any maintenance issues, and in return the transit agency recognizes the volunteer's efforts, either through a sign at the shelter with the volunteer's name, recognition on the agency's website or in newsletters, or by issuing free transit tickets/passes to the volunteer.

b. Developers

Developers have an important role to play in assuring that the local transportation network meets the needs of residents. Developers may contribute funding in support of transportation infrastructure and transit needs in the form of impact fees (payments required by local governments of new development for the purpose of providing new or expanded public capital facilities), and also may be conditioned by the City of Berkeley to provide certain improvements (sidewalk improvements, transit amenities) as part of new development.

c. Private Foundations

For projects that promote community livability and environmental sustainability, implement educational or health-related programs, or respond to the special needs of vulnerable populations, private foundations can provide additional sources of funding. Foundation grant programs are generally very competitive, with awards made in specific interest areas that change periodically to reflect foundation priorities. Examples of major national private foundations that sponsor funding programs of potential relevance to South and West Berkeley CBTP include:

- Surdna Foundation: Focus and current grant-making areas include community revitalization (enhancing quality of life in urban places and ensuring that development promotes social equity) and the environment (including a Transportation and Land Use focus area for grant-making).
- Zellerbach Family Foundation: Focus is strengthening families and communities; current grant-making areas include Improving Human Service Systems, Immigrants and Refugees (projects that promote successful integration into communities and full participation in civic life), and Strengthening Communities (supporting local capacity building, resident participation in decision-making, and community improvement efforts).
- East Bay Community Foundation of Alameda and Contra Costa Counties (EBCF): Focus is on promoting the development of strong communities in the East Bay. One of the values that EBCF promotes with its grant-making is ensuring that community members have equal opportu-

nity and access to participate fully in the civic life of the community. EBCF concentrates its work in four specific program areas, one of which is "livable communities."

EBCF has established three primary target populations for the majority of its work:

1) Low-income children and youth (ages 5-14), particularly youth of color.
2) At-risk youth and young adults (ages 14-25), especially those involved in the juvenile justice and child welfare systems.
3) Low-income children and families, especially those from under-resourced and immigrant communities

Because the South and West Berkeley CBTP targets similar populations and emphasizes community participation in developing strategies, EBCF's Community Investment Grants may be relevant to several of the strategies proposed in the South and West Berkeley CBTP. These grants are primarily available for programs or activities supporting the Foundation's livable communities goals.

d. Service Organizations and Faith-Based Institutions

Service organizations such as Kiwanis, Rotary, and the Lions Club and faith-based institutions and churches in the area may be approached for support in implementing South and West Berkeley strategies. While it is not likely that such groups would be in the position to provide a large investment, they may be willing to sponsor or participate in implementing lower-cost strategies or assist with fundraising in support of larger-scale projects.

E. Summary of Potential Funding Sources

This list of funding sources is a result of discussion with public funding and implementing agencies, including the City of Berkeley, BART, AC Transit, the Metropolitan Transportation Commission and the Alameda County Transportation Improvement Authority (ACTIA).

TABLE VII-1 **POTENTIAL FUNDING SOURCES BY PROJECT TYPE**

Project(s)	Key Potential Funding Sources
AC Transit Service Improvements: ♦ Route 9 Frequency and Span Improvements ♦ AC Transit Route 19 Frequency Improvements ♦ AC Transit Weekend Transfer Window Extension	♦ Ongoing sources of AC Transit operating funding (Transportation Development Act, sales and property tax revenues, Measure B, Measure 2) ♦ Lifeline Transportation Program (includes Job Access and Reverse Commute funds and State Transit Assistance funds) ♦ Congestion Mitigation and Air Quality Improvement Program
BART Frequency Improvements	♦ Ongoing sources of BART operating funding (Transportation Development Act, State Transit Assistance, sales and property tax revenues) ♦ Lifeline Transportation Program (includes Job Access and Reverse Commute funds and State Transit Assistance funds)
Bus Stop and Shelter Improvements	♦ Section 5307 Transit Enhancements ♦ Measure B ♦ Transportation Fund for Clean Air ♦ Lifeline Transportation Program ♦ Congestion Mitigation and Air Quality Improvement Program ♦ Safe Routes to Transit ♦ Transportation for Livable Communities ♦ City Capital Budget ♦ West Berkeley Redevelopment Area ♦ Private Sector Contributions

TABLE VII-1 **POTENTIAL FUNDING SOURCES BY PROJECT TYPE** (CONTINUED)

Project(s)	Key Potential Funding Sources
Transit Information	♦ Section 5307 Transit Enhancements ♦ Transportation Fund for Clean Air ♦ Lifeline Transportation Program ♦ Transportation for Livable Communities ♦ Congestion Mitigation and Air Quality Improvement Program ♦ Private Sector Contributions
BART to Bus Real-Time Arrival Information at BART Stations	♦ Section 5307 Transit Enhancements ♦ Section 5307 ♦ Section 5309 ♦ Lifeline Transportation Program ♦ Transportation Fund for Clean Air ♦ Transportation for Livable Communities
Low-Income Fare Subsidy	Funding sources will need to be determined. Fare subsidy is not easily funded through existing programs, including the Lifeline Transportation Program, given restrictions on use of funds. New funding streams will need to be created to support this strategy.
Maximizing Accessibility of Existing Discounts	The proposed strategies are relatively low cost, but outside funding could support activities such as outreach related to increasing knowledge of existing fare discounts and possibly to support fare product vending in additional locations. Relevant funding sources include the Lifeline Transportation Program.
Subsidized Car Sharing	♦ Lifeline Transportation Program
Expansion of Berkeley Paratransit Services Taxi Scrip Program	♦ Measure B base program and Gap Grant program ♦ Potentially Lifeline Transportation Program ♦ Potentially Section 5317 (New Freedom Program)
Bicycle and Pedestrian Facilities Improvements: ♦ Improve Crosswalk Visibility at Uncontrolled Intersections	♦ STP Transportation Enhancements ♦ Congestion Mitigation and Air Quality Improvement Program ♦ Hazard Elimination Safety Program ♦ Office of Traffic Safety Grants

TABLE VII-1 **POTENTIAL FUNDING SOURCES BY PROJECT TYPE** (CONTINUED)

Project(s)	Key Potential Funding Sources
♦ Improve Signal Timing (Longer Walk Time for Pedestrians) ♦ Improve Pedestrian Lighting ♦ Improved Crossings at Bicycle Boulevards ♦ Educate Cyclists about Bicycle Boulevard Network ♦ Provide More Locations for Safe Bicycle Storage ♦ Shared Roadway Pavement Markings on Class II.5 Bikeways and Traffic Circle Approaches	♦ TDA Article 3 ♦ Measure B ♦ Lifeline Transportation Program ♦ Transportation Fund for Clean Air ♦ Safe Routes to School ♦ Safe Routes to Transit ♦ Regional Bicycle and Pedestrian Program ♦ Transportation for Livable Communities ♦ City Capital Budget ♦ West Berkeley Redevelopment Area

APPENDIX A

COMMUNITY BASED TRANSPORTATION PLAN SURVEY

The following appendix contains the survey instrument that was utilized as part of the outreach process for the South and West Berkeley Community Based Transportation Plan. A version in Spanish was also distributed. Outreach results in Chapter 5 Community Outreach summarize the responses from over five hundred completed surveys, as well as comments from various focus groups conducted in South and West Berkeley.

November 8, 2006

South and West Berkeley Community

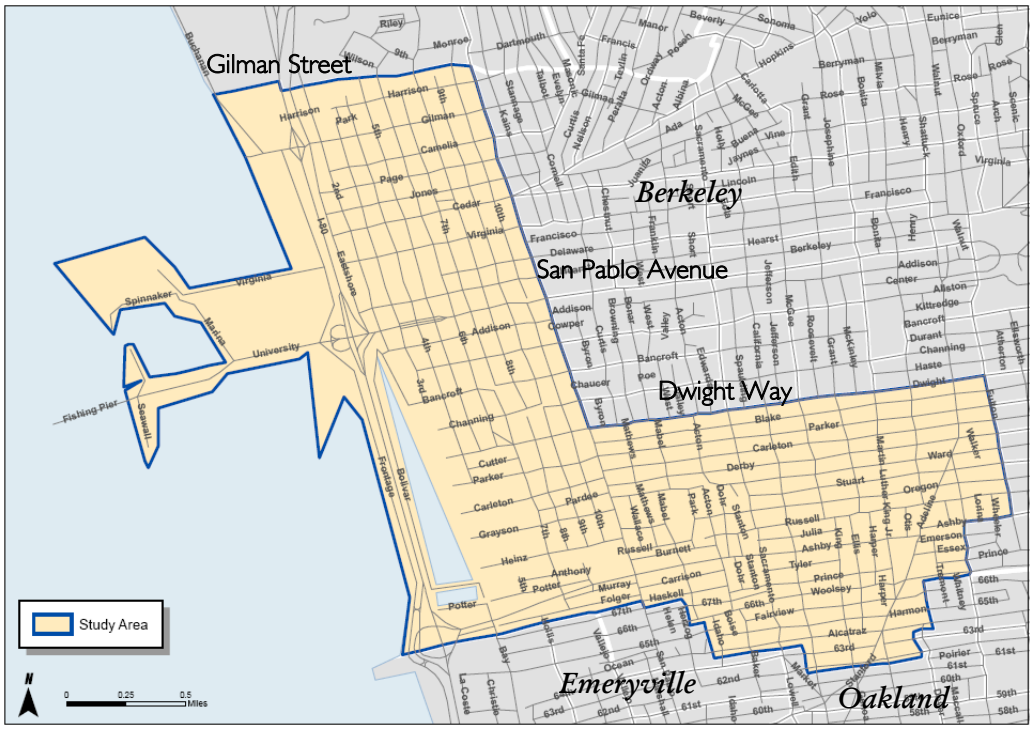
Re: Community Questionnaire for South and West Berkeley Community-Based Transportation Plan

Dear Community member:

The Metropolitan Transportation Commission (MTC) is sponsoring a Community-Based Transportation Plan process in south and west Berkeley. Please see a map of the study area below (for purposes of this survey, south and west Berkeley and the study area are the same).

As part of this process, the project team—MTC, Design, Community, and Environment (DC&E), and Alameda County Congestion Management Agency—is requesting input from the public to help identify gaps in the transportation network throughout south and west Berkeley. Please provide your input by completing the attached questionnaire before November 30, 2006. ***If you have internet access, please answer this survey online at: http://www.ci.berkeley.ca.us/council2/TransportationSurvey.asp***

To be notified about the next steps in the process and how you can stay involved, please include your contact information at the end of the questionnaire. To learn more about community-based transportation planning please visit: http://www.mtc.ca.gov/planning/cbtp/ If you have any questions regarding this survey or the South and West Community-Based Transportation Plan, please contact Ian Moore at (510) 848-3815, extension 342 or ianm@dceplanning.com. Thank you for your input.



South and West Berkeley Community-Based Transportation Plan Study Area

South and West Berkeley Community-Based Transportation Plan

COMMUNITY QUESTIONNAIRE

If you have internet access, please answer this survey online at:
http://www.ci.berkeley.ca.us/council2/TransportationSurvey.asp

Section I. Travel Information

This section asks questions about how you travel in south and west Berkeley.

1. Do you live in south or west Berkeley? *Please check a box to make your response.*

   ☐ *yes* ☐ *no*

2. Do you work in south or west Berkeley?

   ☐ *yes* ☐ *no*

3. Do you only visit south or west Berkeley to shop or do business?

   ☐ *yes* ☐ *no*

4. How do you usually travel? Please check the types of trips you make in a typical week. Check all boxes that apply.

	Drive (incl. carpool & carshare)	***Taxi***	***BART***	***Bus (AC Transit)***	***Walk***	***Bike***	***Paratransit***	***Other or Not applicable***
To work								
To childcare/school								
To grocery store								
Health clinic/Hospital								
Shopping (other than food)								
Recreation								
Other (specify)								

Section II. Transportation Gaps

If you checked any of the boxes indicating that you use AC transit, please respond to the questions below (Section A: AC Transit). If not, skip to the next section (Section B: BART).

A. AC Transit

1. What AC Transit lines (#s) do you usually take? List as many as you want.

2. How do you get information about AC Transit now? Check all that apply.

☐ *Posted information at bus stop* ☐ *Printed schedule* ☐ *511.org website* ☐ *AC Transit website* ☐ *Other:*

3. How would you rate your access to AC transit bus information?

   Very Poor ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Very Good*

4. If you take transit, do you receive any transit discounts – senior/disabled/youth or employer subsidy?

   ☐ *yes* ☐ *no*

Please describe

For the next several questions, indicate how you would rate each of the following issues, with 1 being very poor and 5 being very good.

5. How would you rate AC Transit's on-time performance? (Are the buses on time?)

Very Poor ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Very Good*

If this is a problem, please give detail, including specific bus routes:

6. How would you rate the frequency of AC Transit buses? (How often the bus comes.)

Very Poor ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Very Good*

If this is a problem, please explain:

7. Total length of time needed to take a trip on AC Transit?

Very Poor ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Very Good*

If this is a problem, please explain:

8. How would you rate the time you have to wait to transfer between buses or BART and bus?

Very Poor ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Very Good*

If this is a problem, please explain:

9. How would you rate the cost of taking AC Transit?

Very Poor ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Very Good*

If this is a problem, please explain:

10. How would you rate the experience (comfort, lighting) at bus stops and shelters?

Very Poor ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Very Good*

Is there a particular location that you would like improved?

11. How would you rate safety as a concern for you on buses?

Severe problem ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Not a problem*

12. How would you rate safety as a concern for you at bus stops?

Severe problem ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Not a problem*

If this is a problem, please explain:

13. Can you easily get to a bus stop that you use? (Distance, barriers)

Severe problem ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Not a problem*

If this is a problem, please explain:

14. Do you have any comments, complaints or suggestions about specific bus routes or stops?

B. BART

If you indicated that you ride BART in Question 4, please complete the following section. If not, skip to the next relevant section.

1. What BART stations and lines do use most often?

2. How do you get information about BART now? Check all that apply.

☐ *Posted information at BART Station* ☐ *Printed schedule* ☐ *511.org website* ☐ *BART website* ☐ *Other*

3. How would you rate your access to BART information?

Very Poor ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Very Good*

4. How would you rate BART on-time performance? (Are the BART trains on time?)

Very Poor ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Very Good*

If this is a problem, please explain:

5. How would you rate the frequency of BART? (How often the BART trains comes.)

Very Poor ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Very Good*

If this is a problem, please explain:

6. Total length of time needed to take a trip on BART?

Very Poor ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Very Good*

If this is a problem, please explain:

7. How would you rate the time you have to wait to transfer between BART lines or between BART and bus?

Very Poor ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Very Good*

If this is a problem, please explain:

8. How would you rate the cost of taking BART?

Very Poor ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Very Good*

If this is a problem, please explain:

9. Is safety a concern for you on BART trains?

Severe problem ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Not a problem*

If this is a problem, please explain:

10. Is safety a concern for you at BART stations?

Severe problem ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Not a problem*

If this is a problem, please explain:

11. Can you easily get to a BART station? (Distance, barriers)

Severe problem ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Not a problem*

If this is a problem, please explain:

12. Do you have any comments or complaints about specific BART lines or stations?

C. Don't Use Transit

If you indicated that you don't use any transit in Question 4, please complete this section.

1. Does AC Transit run at the hours that you need it?

☐ *yes* ☐ *no*

If not, please describe problem (inadequate early morning, late evening, or weekend service?):

2. Does transit (AC Transit & BART) serve the locations that you want to go to?

If not, please list locations you want better served by transit:

3. Other reasons you don't use transit:

D. Walking

If you indicated that you walk in Question 4, please complete the following section. If not, skip to the next section.

1. Please rate how the following affect walking in your neighborhood

A. Speed of traffic near pedestrians

Severe problem ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Not a problem*

B. Pedestrian crossing (signals, crossing time, countdown signals)

Severe problem ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Not a problem*

C. Street lighting

Severe problem ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Not a problem*

D. Unsafe pavement for walking

Severe problem ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Not a problem*

2. How would you rate the quality of pavement or sidewalks for walking?

Severe problem ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Not a problem*

Please identify specific locations for pedestrian improvements:

E. Bicycling

If you indicated that you bicycle in Question 4, please complete the following section. If not, skip to the next section.

1. Please rate how the following affect bicycling in your neighborhood

A. Speed of traffic near bicyclists

Severe problem ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Not a problem*

B. Quality of bicycle routes (bike lanes, routes, Bicycle Boulevards)

Severe problem ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Not a problem*

C. Unsafe pavement for cycling

Severe problem ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Not a problem*

D. Bicycle theft and vandalism

Severe problem ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Not a problem*

2. How would you rate the quality of pavement for bicycling?

Severe problem ☐ *1* ☐ *2* ☐ *3* ☐ *4* ☐ *5* *Not a problem*

Please identify specific routes or locations for bicycle improvements:

F. Paratransit

If you indicated that you use paratransit, please complete the following section. If not, skip to the next section.

1. Do you feel that existing services adequately serve you? If not, please list some problems or issues you face with paratransit service.

Section III. Conclusion and Statistical Information

A. Conclusion

1. In your opinion, what are the most important transportation issues in south or west Berkeley?

2. Please list any additional suggestions or possible transportation solutions for south and west Berkeley.

B. Statistical Information (Optional)

The following questions are for statistical purposes only. The information is useful for analysis but is optional:

1. Please indicate where you live:

Street name: *City* *Zip Code*

2. Which of the following age groups are you in?

☐ *18 or younger* ☐ *19 to 29* ☐ *30 to 49* ☐ *50 to 64* ☐ *65 to 79* ☐ *80 or older*

3. What is your Gender? ☐ *M* ☐ *F* ☐ *Transgender/other*

4. Please characterize your race or ethnicity?

5. Please indicate your household income range:

☐ *under $25,000* ☐ *$25,000 – $32,000* ☐ *$32,000 – $50,000* ☐ *$50,000 – $75,000* ☐ *over $75,000*

If you'd like to be informed of upcoming meetings related to the development of the Community-Based Transportation Plan, including the results of this survey and proposed solutions, please provide the following information:

Name

Phone Number

Email Address

Thank you for taking the time to complete this questionnaire. *Please return your completed questionnaire by November 30, 2006 to: Ian Moore, c/o Design, Community & Environment, 1625 Shattuck Ave., Suite 300, Berkeley, CA 94709. If you have any questions regarding this survey or the South and West Community-Based Transportation Plan, please contact Ian Moore at (510) 848-3815, extension 342 or ianm@dceplanning.com.*