Comprehensive Station Plan

Richmond

June 2004

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We intended to include all those who supported the Planning Department in creating this plan; we apologize if we missed anyone.

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What Is a Comprehensive Station Plan?

BART stations are both transit hubs and valued community resources. Recognizing this, the BART Board of Directors in 2001 directed the Planning Department to undertake a thorough and integrated analysis of planning issues at every station. Called Comprehensive Station Plans, these documents are guided by BART's Strategic Plan, with recommendations reflecting the Strategic Plan's focus areas. Each Comprehensive Station Plan brings together the work of many BART staff, agency partners and members of the public.

Each Comprehensive Station Plan examines how effectively a station meets the present and future needs of its passengers and surrounding community. The Comprehensive Station Plan does this by examining three key station elements:

- **Station Area Development--**how the station works in its surrounding neighborhood
- **Station Access--**how passengers get to the station
- **Station Capacity and Functionality--**how the physical and operating components of the station function

BART staff use Comprehensive Station Plans to evaluate the scope and timing of a proposed station project or initiative, to seek grant funds, and to communicate with the public and other agencies. Partners and potential partners use the plans to evaluate the most effective way to work toward common goals.

A Comprehensive Station Plan can be updated or expanded as needed. As planning documents, they are living and flexible works, meant to be revised by section or overall as new information or direction becomes available. A Comprehensive Station Plan allows for revisions while it retains the station's collectively defined vision.

We invite your perusal, use, and comments.

1.0 Executive Summary

BART's Richmond Station is undergoing a major transition from being an underutilized terminal station to becoming part of a vibrant transit village. The Richmond Comprehensive Station Plan calls out key issues and proposes recommendations so that BART and its partners can accommodate the station's change and growth over the next twenty years. The Plan can be updated or expanded as new information or direction becomes available while still retaining a collectively defined vision for the station.

The Richmond Comprehensive Station Plan analyzes the station's current environment so that actions today do not preclude making the most of future opportunities. The Plan does this by recognizing the links among three major station elements:

- **Station Area Development--**how the station works in its surrounding neighborhood
- **Station Access--**how passengers get to the station
- **Station Capacity and Functionality--**how the physical and operating of the station function

Key findings from the Plan about these station elements are summarized below.

Station Area Development

The Richmond Transit Village project, consisting of nearly 17 acres, is a mixed-use transit-oriented development that integrates housing with working, retail and cultural activities and a multi-modal transit station. The project's construction has three phases, the first of which began in fall 2003 and is known as Metro Walk. Although funding for a critical element of Phase 2--a five-story 800-space BART garage that replaces surface lots that can then be developed--is uncertain because of the State of California's financial crisis, project sponsors expect to break ground on the new plaza and transit facility in fall 2004.

Station Access

The Plan's section on access summarizes the 2003 Richmond Station Access Plan and includes important updates gathered from the Environmental Justice study conducted in FY03-04, as well as other ongoing planning efforts.

The Richmond Station access recommendations are as follows:

- Ensure the safety and security of BART patrons by creating a network of safe walking routes to the station and improving public safety at the station;
- Assist the City in its plans to revitalize the downtown area, and encourage the City to add bicycle lanes and make streetscape improvements at and around the station area;
- Work closely with AC Transit to secure the funding necessary to provide commute-level feeder service to the station and other transit service improvements; and
- Pursue the possibility of extending rail north of the Richmond station to provide commute-level service farther into western Contra Costa County and Solano County.

Station Capacity and Functionality

The section on station capacity is designed to anticipate and accommodate the capacity needs of a station as ridership grows by identifying construction priorities and developing a conceptual understanding of the costs and time required to accomplish improvements.

The Richmond Station was analyzed as part of a systemwide assessment completed in early 2003 of BART station capacity needs in 2025. The analysis of 2025 capacity needs produced the following recommendation for the Richmond Station:

- Add six fare gates

The cost of adding six fare gates is approximately $1.15 million.

The following additional recommendations from the analysis focused primarily on customer comfort and convenience rather than providing more station capacity:

- Add platform windscreens and canopy cover
- Expand the paid area

No cost estimates have been developed for these recommendations.

2.0 Introduction

2.1 Vision

The Richmond Station, like the City itself, is on the verge of a major transition. Over the next few years, several major developments and projects will transform the station area into a lively and pleasant community. The development of a transit village at the Richmond Station, potential renovation of the Civic Center, economic development along Macdonald Avenue and potential development along the Richmond Parkway will attract new BART riders whose destination, rather than starting point, is Richmond. At the same time, the station must continue to fulfill its current role as an intermodal station for riders going to both local as well as regional destinations. Increased intercity and possibly commuter rail service from Sacramento and Solano counties will add passengers transferring to the BART system.

BART Train Arrives at Richmond Station

This Comprehensive Station Plan is a work-in-progress and will likely remain one as the area transforms into a transit village. The vision of the station as the center of downtown Richmond remains, however, and will guide how BART and its partners plan for the future.

2.2 Station Goals and Objectives

BART's goals for the Richmond Station are an extension of the goals for the system as a whole and serve to reinforce the policy direction set by the BART Board in 1999 when it adopted the BART Strategic Plan.

Strategic Plan Focus Area: The BART Customer Experience

Comprehensive Plan Goal: Deliver quality transportation to Richmond Station BART riders.

Objectives:

- Provide convenient access to the station by every mode. Work with partner transit agencies, localities and others to improve riders' access to and from the station.
- Ensure comfort of customers by monitoring capacity issues at this station.

Strategic Plan Focus Area: Building Partnerships for Support

Comprehensive Plan Goal: Work proactively with the city, local businesses and residents, the development community, transit agencies and government partners to plan for the continued economic revitalization of the station and the station area, primarily along Macdonald Avenue.

Objectives:

- Coordinate station area development with the City, the developer, and other governmental and transit agency partners to minimize disruptions to BART passengers, area residents and neighboring businesses.
- Improve access to the station for underserved communities through active partnerships with community and neighborhood groups and governmental agencies.
- Seek opportunities for continued enhancement of the station and station area through partnerships with local businesses and business associations.

Strategic Plan Focus Area: Transit Travel Demand

Comprehensive Plan Goal: Alleviate congestion at neighboring stations by encouraging the use of Richmond BART.

Objectives:

- Identify and implement creative ways to encourage usage of Richmond BART by express bus and long distance commuters.
- Plan for access improvements to the station by all modes and work with regional partners to implement a set of access recommendations.

Figure 1: Richmond Comprehensive Station Plan Goals

- *Deliver quality transportation to Richmond Station BART riders.*
- *Work proactively with the city, local businesses and residents, the development community, transit agencies and government partners to plan for the continued economic revitalization of the station and the station area, primarily along Macdonald Avenue.*
- *Alleviate congestion at neighboring stations by encouraging the use of Richmond BART.*
- *Continue to support the development of the transit village as well as off-site development to spur the revitalization of downtown Richmond and add riders to the BART system.*
- *Accommodate the needs of BART commuters and area residents for the next 25 years.*

Strategic Plan Focus Area: Land Use and Quality of Life

Comprehensive Plan Goal: Continue to support the development of the transit village as well as off-site development to spur the revitalization of downtown Richmond and add riders to the BART system.

Objectives:

- Work closely with the City of Richmond Redevelopment Agency, the project developer, and other governmental partners to ensure the success of the Richmond Transit Village project.

Strategic Plan Focus Area: Physical Infrastructure

Comprehensive Plan Goal: Accommodate the needs of BART commuters and area residents for the next 25 years.

Objectives:

- Periodically evaluate the capacity and access needs at the Richmond Station to ensure that it continues to serve the needs of BART riders.

2.3 Comprehensive Station Plan Process

The Comprehensive Station Plan (CSP) process was initiated by the BART Board to coordinate the disparate planning efforts within and outside of BART that affect the stations. Led by BART's Planning Department, the planning process was intended to involve the input of internal and external stakeholders, a thorough review of plans and initiatives that impact the station, and a common vision for these efforts. Previous comprehensive station plan efforts included public outreach or visioning processes which led to concrete station goals shared among residents, BART riders, and governmental and transit agency staff. For this effort, BART relied upon past efforts and current

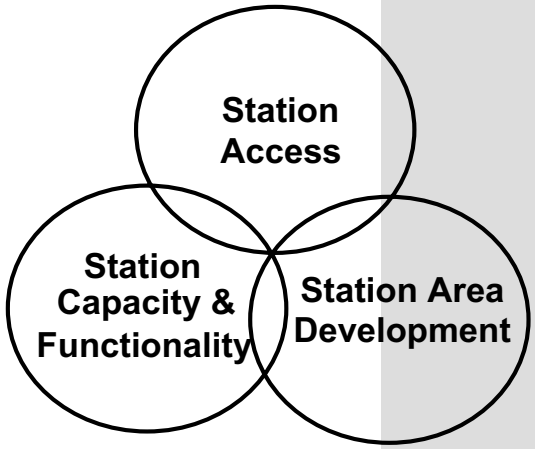


Figure 2: The Comprehensive Station Plan process incorporates three interrelated areas of concentration.

planning to evaluate issues and opportunities at Richmond BART.

In developing this CSP, BART staff analyzed station needs and developed recommendations in three areas of concentration: station area development, station access and station capacity and functionality. It should be noted that the Richmond Comprehensive Station Plan is being developed at the same time as the transit village development is underway. Fortunately, BART staff worked closely with the city and the developer on the creation of the transit village and was able to incorporate many improvements in the design of the project. As we will see later in this document, the station's capacity needs are so minimal that they do not affect the transit village project. Most critically, the transit village development will transform the station area into a pleasant and vibrant community center alleviating long-standing safety and security problems at this station.

In light of this progress, this CSP remains a work-in-progress that must be revisited as the development of the station area proceeds, and we can see how well the station functions in relationship to the new residential and commercial development at the transit village.

2.4 Partners and Stakeholders

External Stakeholders

Some of the stakeholders that have contributed to the development of this Comprehensive Station Plan are:

Community Groups:
- Neighborhood House of North Richmond

Local Government Agencies:
- City of Richmond Redevelopment Agency
- West Contra Costa Transportation Advisory Committee (WCCTAC)
- City of Richmond Planning Department

Transit Agencies:
- BART
- AC Transit
- Golden Gate Transit

Others:

- The Olson Company

Internal Stakeholders:

A wide array of BART staff and departments participated with the Planning Department to develop this Plan:

- Capitol Corridor
- Customer Access
- Government and Community Relations
- Maintenance & Engineering
- Operations
- Operations Liaisons
- Police
- Real Estate
- Rolling Stock & Shops
- System Capacity
- System Safety
- Transit System Development
- Transportation

3.0 Existing and Future Conditions

BART's Richmond Station, which opened in 1973, lies in the heart of the City's downtown, six blocks west of the Richmond Civic Center. Richmond BART is the terminal station of the Richmond line in western Contra Costa County and serves as an intermodal station, offering connections to both the local and regional transportation network. The Richmond station primarily attracts local residents, with some additional riders from Marin and Solano counties. Many riders bypass Richmond in favor of stations in El Cerrito, primarily because of the Richmond Station's poor proximity to the I-80 freeway. In addition, many riders perceive the station area as unsafe, and this provides a considerable deterrent to its use.

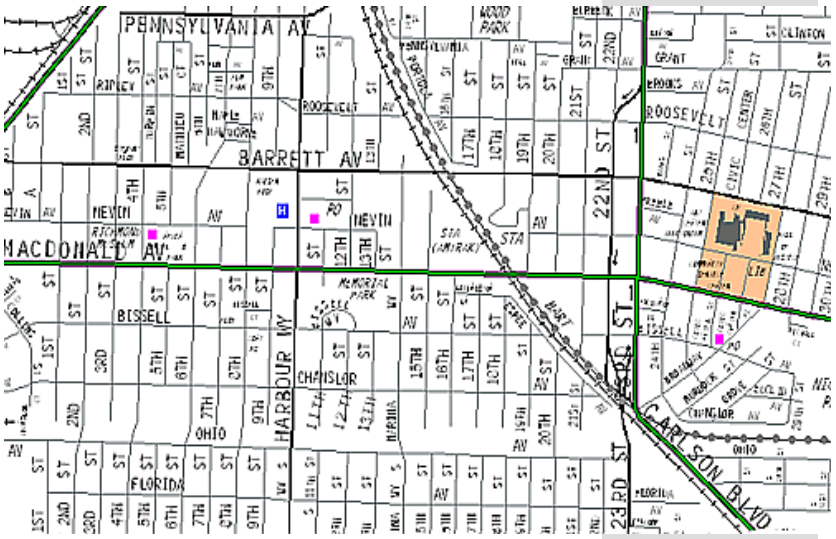


Figure 3: Richmond Station Area Map

The Richmond Station serves as an intermodal station, connecting BART, bus and regional rail service. It is the only BART station with direct connections with Amtrak and Capitol Corridor service. In addition, six AC Transit and one Golden Gate Transit bus routes connect at this station, providing both local and regional service.

Figure 4: Richmond Transit Village

Beginning in July 2003, the City of Richmond Redevelopment Agency, BART, WCCTAC and the developer, The Olson Company, began construction of the Richmond Transit Village (RTV). This transit village, along with other improvements in the surrounding area, promises to transform the station area into a vital, safe community including both residential and commercial development. The RTV will include 231 residential units, approximately 27,000 square feet of commercial space and a

cultural arts or community center which will add to the station's sense of place and community. The creation of a transit village, with the new residents and the increased activity level, will greatly improve the security at the station, and provide a new sense of safety for BART, bus and train riders.

As shown in the Station Access Plan completed in August 2002, a relatively small investment in new facilities at the Richmond Station and in the surrounding community, beyond that which is currently planned for the station, could significantly encourage access by alternative modes. Constructing bicycle lanes or designating bicycle routes on local streets, providing additional bicycle lockers at the station, and making critical streetscape improvements in the surrounding neighborhoods would greatly encourage bicycling and walking. Increasing the frequency of local bus service would encourage their use by commuters. Over the next few years, BART and its partners have a tremendous opportunity to make many of these access improvements. The development of the Richmond Transit Village will add over 400 additional residents, a new intermodal station, and critical retail and commercial activity at the Richmond Station. In addition, potential redevelopment along Macdonald Avenue and new commercial development within the City will attract new BART riders.

3.1 Local Land Uses and Community Character

The Richmond Station is bordered by Macdonald Avenue, Barrett Avenue, 19th Street and Marina Way. Residential neighborhoods abut the station to the north and east, and a number of commercial facilities are situated along Macdonald Avenue and Marina Way, including the Kaiser Permanente Medical Center, the federal Social Security Payment facility, and the Richmond Shopping Center. The total number of jobs at Kaiser and Social Security are approximately 2700. The Richmond Civic Center, currently undergoing seismic retrofitting, is located six blocks east of the station. A pedestrian-only path, the Nevin Avenue

Walkway, extends east-west from the Kaiser Permanente Medical Center to the Civic Center, bisecting the station. Richmond BART is the terminal station of the Richmond line in western Contra Costa County and serves the communities of Richmond, North Richmond, and San Pablo as well as commuters from northern cities within the county and from Marin, Solano, Yolo and Sacramento counties.

Kaiser Permanente Medical Center

Over the past decade, the City has undertaken a number of significant development projects in the downtown area including the construction of the federal Social Security Administration office, the Kaiser Medical Center, and the Richmond Shopping Center. Several new housing projects have also been developed including the City Center Apartments project, which is part of the Richmond Shopping Center project, the Jelani Park subdivision, the Carquinez Apartments and Park Circle, 24 for-sale townhouses developed by Bridge Housing. Although these projects have been somewhat successful; however, the area remains economically depressed.

Several years ago the City developed a Civic Center Master plan which calls for the expansion of City offices and better use of existing space. Nearly all City offices–-and several hundred employees–-have been relocated to the Marina area. The City's poor financial condition has stalled the retrofitting process and it is unclear when it will be completed.

Richmond Civic Center

There are several other significant activity centers within the "commuter shed" of the Richmond Station – most notably Contra Costa College, the Richmond Marina and Hilltop Mall. Transit access to and from these destinations and the BART station is poor, especially in the late evening hours and on weekends.

3.2 Macdonald Avenue Economic Revitalization Plan

In 2002, the City received federal funding through the Mainstreet USA program to conduct an economic development plan for Macdonald Avenue. The purpose of this planning effort is to "guide economic expansion, architectural and streetscape design, preservation and infrastructure improvements in this corridor." A Summary Memorandum of Phase One of this project, which describes current conditions, market and development opportunities and initial planning concepts, was released in October 2003.

Historic Macdonald Avenue

For study purposes, the consultants divided Macdonald Avenue into five segments based

on physical elements and land uses. The BART station area was included in Area B, considered "downtown" by most Richmond residents. Area B, which also includes the Kaiser Medical Center and the Social Security Administration offices, has a large number of "opportunity sites," undeveloped or underutilized parcels that could be potential sites for development. A number of these opportunity sites are publicly owned parcels that front Macdonald. The downtown area is "primarily a local-serving retail district with a grocery-drug shopping center and food outlets as the major anchor uses."

Historic Macdonald Avenue

Photos courtesy of Richmond Redevelopment Agency

The study finds that housing represents the best opportunity for development along Macdonald and that a transition to higher density, mixed-use development is needed to sustain commercial revitalization of the urban corridor. The study also finds that developer interest in creating higher density products depends greatly on the success of the sale of market-rate, multifamily units at the Richmond Transit Village. In addition, the study notes that additional public investment in streetscape improvements is needed to support retail.

3.3 Ridership

In fiscal year (FY) 2003, the average weekday daily exits at the Richmond Station were 3,636, an 11.4% decrease in ridership from FY02 (4,104 average weekday exits). This decrease is more than double the 5% decrease experienced systemwide during the same time period. The reason for this steep decline could be a combination of the following factors: the relocation of City staff to the Marina area, AC Transit service changes, construction activity at the station area, and the overall impact of low employment levels in the region. In FY04, ridership has decreased further to an average weekday ridership of 3,439. This reduction may be due entirely to the construction activity at the station.

Rider Boarding at Richmond Station

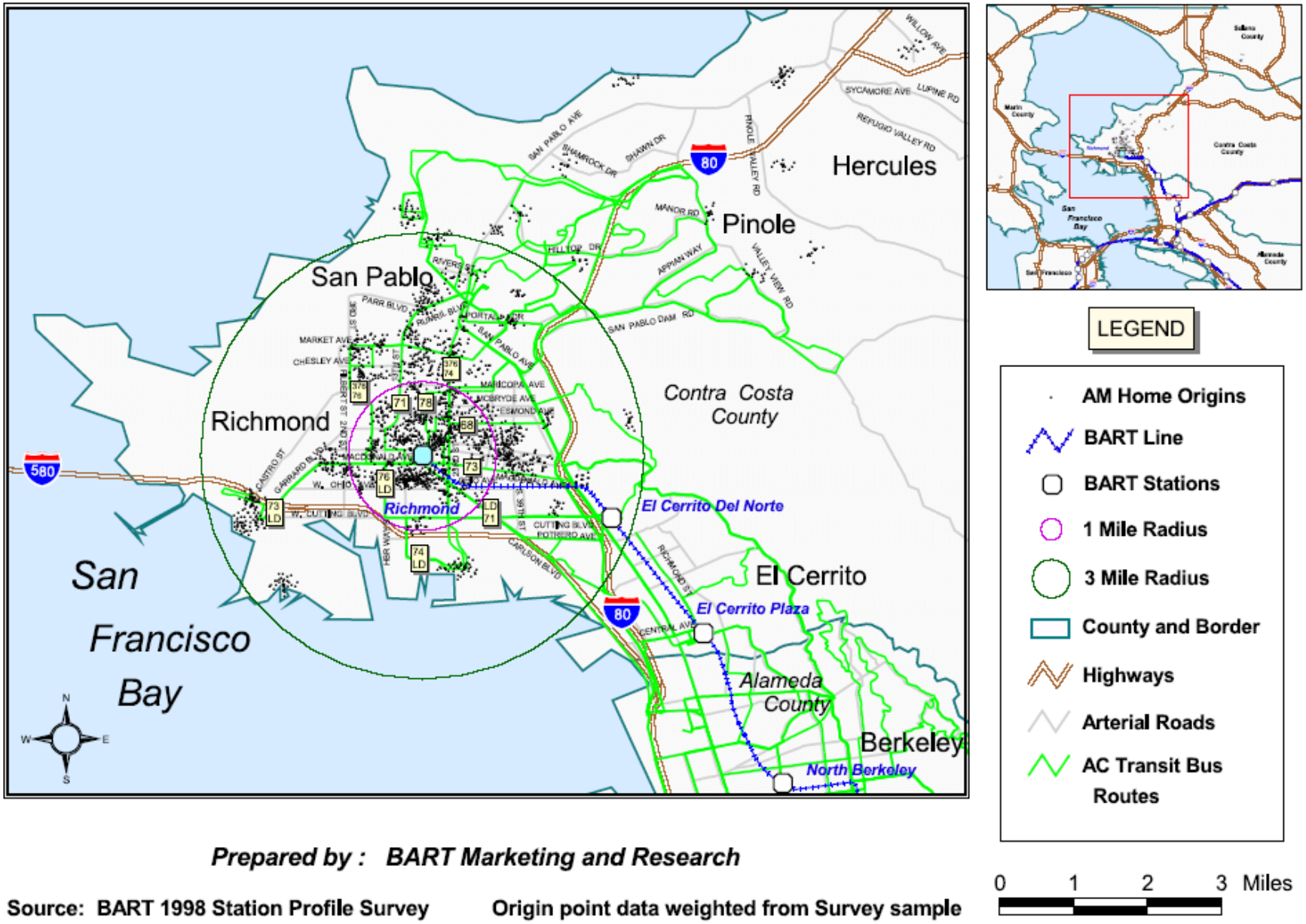
By 2014, ridership is projected to increase 17%, to 4,038 average daily ridership, a modest increase that will only just barely surpass levels reached at BART's

ridership peak in 2002. The ridership projection does not include the proposed BART extension to Warm Springs, San Jose and Santa Clara, which will increase ridership and access needs when it opens. The ridership projection also does not reflect the development of the station area, nor any increases in local bus service or Capitol Corridor service. These projections will be updated each year as part of BART's system planning efforts.

As the map on the next page shows, Richmond BART riders originate in the cities of western Contra Costa, Solano and Marin counties. During the morning commute hours, Richmond is more often the point of entry to the system for many residents rather than a destination. Richmond boasts a higher percentage (43%) of riders that travel during the morning commute hours than do riders systemwide (32%). Eighty-six percent (86%) of riders at Richmond use BART to get to work or school.

Figure 5:

AM Weekday Home Origins : Riders Entering Richmond BART Station



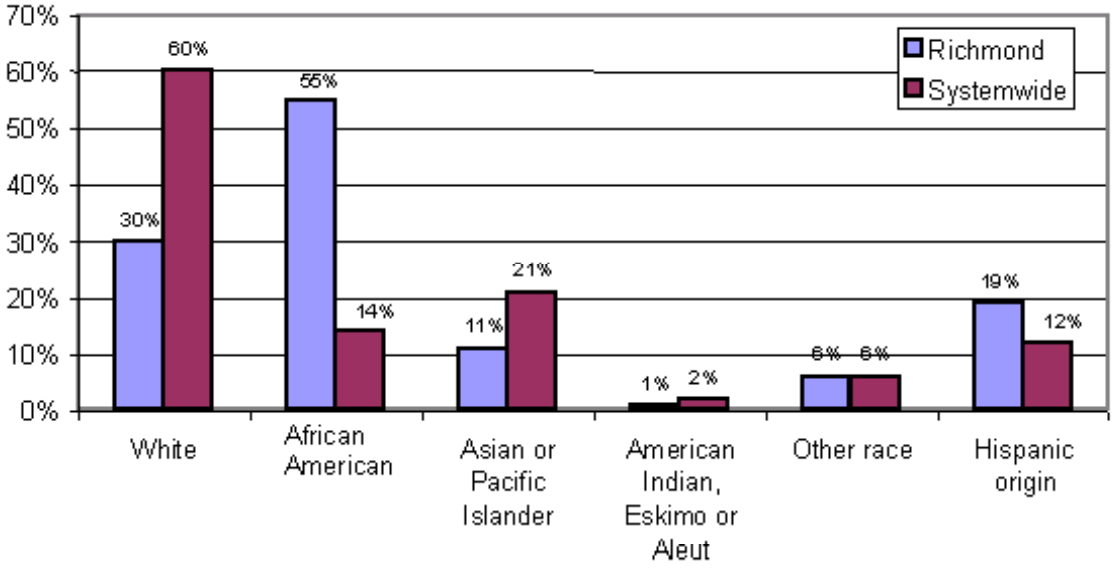
Prepared by : BART Marketing and Research

Source: BART 1998 Station Profile Survey Origin point data weighted from Survey sample

3.4 Demographics

Based on data from the 1998 BART Station Profile Study, BART riders who use the Richmond station have a very different profile from that of the system as a whole. Richmond riders tend to be female, persons of color, and have a lower household income than other BART riders. In addition, 6.5% of the riders at Richmond BART use red BART tickets, which indicates a high disabled or youth ridership. Anecdotal evidence indicates that many students use BART to get from Richmond to middle and high school in El Cerrito.

Figure 6: Race and Ethnicity of Richmond and Systemwide Passengers



Source: 1998 BART Station Profile Study

The following is a brief summary of the Richmond BART passenger demographic information for all home-based trips:

- 63% of riders are female
- 4% of riders are under 18 years old, compared with 1% systemwide, and 12% are 18 to 24 years old, compared with 11% systemwide
- 55% of riders are African American, and 19% identify themselves as of Hispanic origin

- 41% of riders have household incomes between $30,000 and $60,000 compared to 34% systemwide. The second largest share is 39% for the $30,000 or less income level compared to 21% systemwide

The following chart shows how the ridership at Richmond compares to the surrounding community. People of Hispanic origin may have also identified themselves under another category. BART's Environmental Justice-Access-to-BART grant is exploring the use of BART by the Laotian community, a fast-growing community in Richmond and San Pablo.

Figure 7: Race & Ethnicity of Richmond BART Riders and Station Neighborhood Residents

Race and Ethnicity	**1998 Richmond BART Riders** *(AM Peak: 5:30AM to 10:00AM)*	**2000 Station Neighborhood** *(1 mile radius from the Station)*
White	30%	25%
Black	55%	39%
Asian or Pacific Islander	11%	6%
American Indian, Eskimo or Aleut	1%	1%
Other Race	6%	29%
Hispanic Origin*	19%	44%

Note: Percentages may not add to 100% due to rounding.

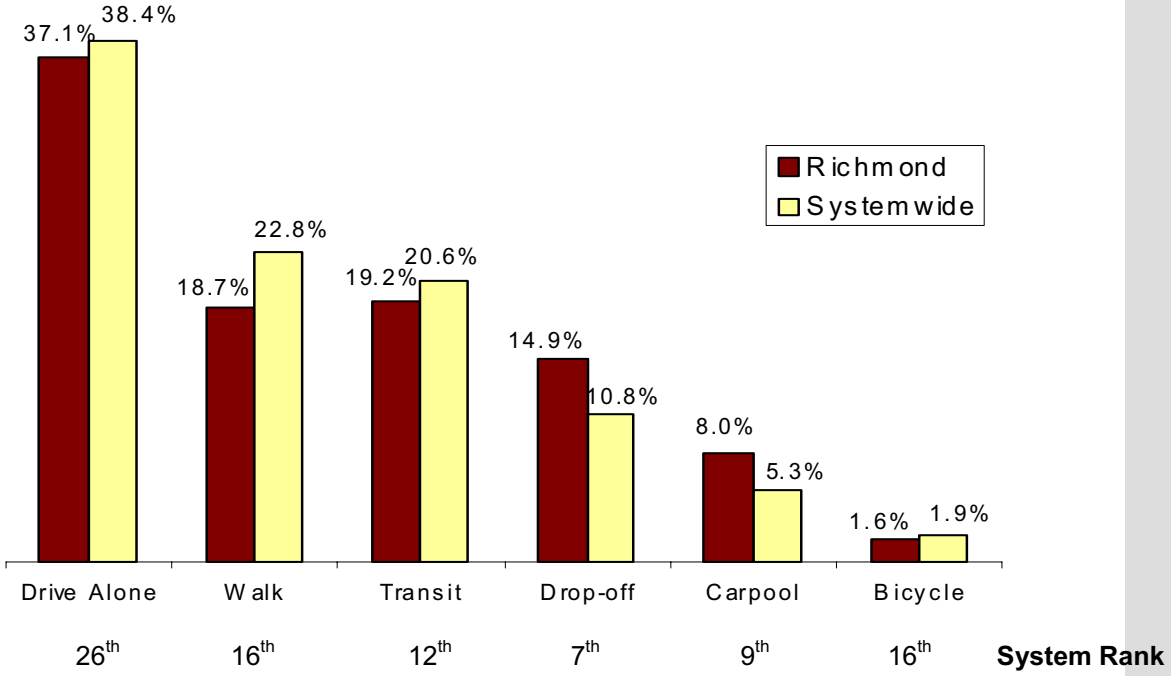
** The Hispanic Origin percentage includes persons that are accounted for in the race categories noted above.*

Data Source: 1998 BART Station Profile Study, 2000 Census Data

3.5 Mode Split

Based on 1998 data, the access mode split chart below shows that 36% of Richmond Station riders access the station by drive-alone automobile, a figure consistent with the systemwide average. This rate has changed little from 1992 to 1998, when the most recent survey was conducted. The share of riders accessing the station by drop-off (14.9%) and carpool (8%) are significant, given that there are no designated carpool spaces at Richmond, and only the west side of the station has a designated drop-off area. The bicycle mode share of 2% is consistent with the systemwide average, while transit usage at Richmond (19%) is slightly lower than the systemwide average of 21%. Mode split data is based on both AM and PM home-based trips to the station.

Figure 8: Mode Split, Richmond & Systemwide



3.6 Safety and Security

Safety and security have long been key issues at the Richmond Station. Many local residents and employees of area businesses will not use Richmond BART due to real and perceived issues of crime at and around the station. Richmond BART ranked ninth

overall in 2003 in the number of all crimes occurring on BART station property. The station saw a 22% increase in crime (primarily in Part 2 and Miscellaneous crimes, described below) over that of 2002.

Figure 9: BART Reported Crimes at Richmond Station, 2003

Crime Type	Richmond	System Average per Station
Part 1 Crimes	135	75
Auto burglary/theft	98	42
Robbery	11	3
Assault—deadly weapon	2	Less than 1
Part 2 Crimes	767	545
Miscellaneous Incidents	821	535

Source: BART Police Monthly Statistical Report, Dec. 2003

Part 1: murder, rape, aggravated assault, burglary and theft;
Part 2: simple assault, disorderly conduct, weapons violations, vandalism and fare evasion;
Miscellaneous incidents refer to events to which the Police respond but that involve no reported crime.

4.0 Station Area Development

Figure 10: Richmond Transit Village Aerial View

4.1 The Richmond Transit Village

The Richmond Transit Village (RTV) is a major urban redevelopment project being undertaken in partnership with the City of Richmond Redevelopment Agency, BART, the West Contra Costa Transportation Advisory Committee (WCCTAC) and the developer, the Olson Company. Located on 16.7 acres of underutilized or largely vacant land, along with BART surface parking, the project is a mixed-use, transit-oriented development that will integrate "living, working, retail and cultural activities with a multi-modal transit station." The phased project will consist of:

- 231 townhouses, including 89 live/work units
- 27,500 square feet of retail
- Cultural arts center or community facility
- Five common open areas
- Pedestrian walkways, including the elevation of the Nevin Walkway to grade level
- A 3,700 square foot intermodal station with an at-grade plaza, new stairway and elevator, a community police substation, and lobby with ticket sales

Figure 11: Richmond Transit Village Architect's Sketch

- Safety and security improvements (Richmond police substation, elevated Nevin Walkway, adequate lighting)
- A five-story parking garage, with 800 total spaces (680 replacement and 120 new parking)
- Landscaping and public art

Courtesy of Richmond Redevelopment Agency
Figure 12: Intermodal Station Interior

Phase 1 of the project, initiated in fall 2003, consists of the development of 132 units of housing and approximately 7,500 square feet of retail. Phase 2, which will begin in fall 2004, will consist of a new, elevated Nevin Walkway, an intermodal station, a bus transfer facility and a five-story, 800-space BART parking garage with an additional 9,000 square feet of ground floor retail space. The redesigned Nevin Walkway will lead pedestrians to an at-grade plaza and the intermodal transit station.

Phase 3 will consist of 99 housing units, approximately 11,000 square feet of retail space and a 30,000 square foot cultural arts center.

Courtesy of the Richmond Redevelopment Agency
Figure 13: Richmond Transit Village Phasing Plan

4.2 Metro Walk at the Richmond Transit Village

Metro Walk is the first phase of the Richmond Transit Village development, consisting of 132 attached affordable and market rate homes. Since the project broke ground in October 2003, sales are extremely brisk; over 72 units were sold in the first four months. Metro Walk offers three floor plans, including live/work units. Up to 50% of the units are affordable, using moderate income guidelines. The City offers a first-time homebuyers program and preference is given to individuals who have lived and/or worked in the City of Richmond.

Metro Walk

Courtesy of the Olson Company

4.3 Funding

Funding for the Richmond Transit Village project is a complex mix of local, state, regional and federal transportation and housing funds that requires extensive project oversight and management by Redevelopment Agency and partner agency staff.

Because of the State of California's financial crisis, funds for various project elements have been "lost" or are in jeopardy. Most critical is the funding for the replacement parking garage. In 2000, Governor Gray Davis provided $5 million in funding for the garage

project through the state's Transportation Congestion Relief Program (TCRP). However, before that funding could be obligated, the state rescinded it, leaving a gaping hole in the project's budget. The construction of the 800-space parking garage is critical; development of the existing surface parking lots cannot begin until replacement parking is available. It is unclear whether the total amount of funding needed for the parking structure ($9 million) will become available in the near future. The City has requested a $4 million earmark in the federal transportation omnibus bill; the fate of that earmark is unknown at this writing.

Despite this delay, the project sponsors are expecting to break ground on the new plaza and transit facility in fall 2004. The Redevelopment Agency is discussing occupancy with partner transit agencies and local law enforcement.

5.0 Station Access

The Richmond Station Access Plan, released in August 2002, focuses on improving access to the station by modes other than drive alone automobile. This chapter is a summary of that plan, updated to reflect recent information gained through the Environmental Justice study conducted in FY03-04, as well as other ongoing planning efforts. A summary of the access issues and recommendations by mode are described below; a table consisting of the complete list of recommendations is included at the end of this chapter.

Richmond Station Entrance

5.1 Walk

The primary impediment to walking or using wheelchairs to and from the Richmond Station is the lack of public safety at the station and in the surrounding areas. In addition, many of the neighboring sidewalks are cracked and full of debris and glass. The absence of curb cuts is a major issue, especially for individuals in wheelchairs. To get to a key destination, the Richmond Civic Center, one must travel through an older, dilapidated neighborhood. Pedestrian access to and from the federal Social Security Administration building and the Kaiser Medical Center currently is disrupted due to the construction of the Richmond Transit Village development. The future Nevin Walkway will be at grade and well lit, making the walk much more pleasant as well as safer.

Richmond Station Area Sidewalk

The City of Richmond received a grant in 2002 from MTC's Transportation for Livable Communities (TLC) program for the beautification of the bus intermodal area. The grant will be used for additional landscaping, new bus shelters and the delineation of pedestrian pathways to the station.

Although the Richmond Transit Village development will provide safe and accessible pathways, the entire development with lighting and landscaping throughout, no plans are in the works to repair or upgrade city streets beyond the station area. Increased activity brought about by the more than 400 residents of the RTV and increased commercial activity will provide a much safer environment for residents and visitors to the Richmond Station. Key strategies for increasing the walk mode share are:

- Create a safe pedestrian, wheelchair, and bicycle friendly streetscape on Nevin Avenue between the station and key destinations (Kaiser, Social Security and the Civic Center).
- Provide wayfinding signs, lighting and other amenities along local streets and throughout the transit village.
- Reconfigure some existing curb cuts and add new ones along local streets.
- Locate a police substation at the new intermodal facility.

5.2 Bicycle

Richmond Station presents a clear opportunity to increase the bicycle mode share because of the flat terrain around the station, the station's high "drop off" rate and its significant youth ridership. Currently, the main issue for bicyclists is a lack of bicycle facilities. As noted in BART's Bicycle Access and Parking Plan for the Richmond Station (September 2002), a new bicycle route is planned for Barrett Avenue on the north side of the station; however, no additional bicycle lanes or routes connecting the community with the station are planned. In addition, the Richmond Station currently has only one locker that can house two bicycles and one rack, which will serve 20 bicycles. The bicycle mode share increased from 0.5% to 1.6% between 1992 and 1998, the last year for which data is available. The key strategies for increasing the bike mode share are:

Richmond Station Bicycle Rack

- In partnership with the City, seek grant opportunities to provide a bicycle pavilion at this station.

- Install bike stair channels at station entrances and between paid area and platform.
- Remove existing locker and replace with Class 1 parking for 8 total bicycles with perforated metal box-style lockers or pie-shaped lockers in the free area. Monitor demand and consider additional lockers to accommodate increased activity resulting from RTV development.
- Add a bicycle rack adjacent to existing rack. Monitor supply and demand and add more racks as needed.
- Provide security cameras for bicycle parking areas.
- Ensure adequate signage throughout the RTV development as well as wayfinding signage on local streets.
- Work with the City of Richmond to develop on-street bike lanes and signage for key access routes (Macdonald Avenue, Harbour Way and 17th/19th Street corridor).
- Work with the City of Richmond to develop a direct connection between the planned Richmond Greenway and the BART station.
- Encourage the City of Richmond to create a bicycle left turn lane into the station at 19th Avenue.

5.3 Bus Transit

Although Richmond currently has seven bus routes providing service to the station, the service on these routes is generally too infrequent to significantly encourage their use for commuting. In addition, better connections could be provided to older residential neighborhoods west of the station, and to new developments along the Richmond Parkway.

In the past several years, budget cuts have forced AC Transit to make severe cuts in service. This has affected several of the bus routes that have provided service to the Richmond Station. AC Transit has attempted to maintain service levels in the community by combining routes when possible. Despite these cuts, AC Transit currently provides service to approximately 860 passengers per weekday, or 258,000 annually.

Figure 14:
Bus Routes Connecting at Richmond BART

Route	Bus Line	Peak Frequency	Off-Peak Frequency	Hours of Operation
70 Appian	AC Transit: Richmond BART to Richmond Parkway Transit Center	30 min	30 min	5:30 a.m.--8:30 p.m.
71 Rumrill	AC Transit: Richmond Parkway Transit Center-- El Cerrito del Norte BART	30 min	30 min	6:00 a.m. – 7:30 p.m.
72 M Macdonald	AC Transit: Richmond – Downtown Oakland	30 min	30 min	5:01 a.m.-12:30 a.m.
74 23rd St.	AC Transit: Orinda BART--Marina Bay	30 min	30 min	5:49 a.m.-8:34 p.m.
76 Cutting	AC Transit: Hilltop Mall--El Cerrito del Norte BART	30 min	30 min	5:45 a.m. – 7:45 p.m.
376 North Richmond Night	AC Transit: Loop Service--El Cerrito Del Norte BART--Pinole Vista Shopping Center	N/A	30 min	8:00 p.m. – 1:00 a.m.
40/42	Golden Gate Transit: San Rafael-Del Norte BART	Varies	Varies	5:30 a.m. – 1:00 a.m.

Due to the relocation of most City of Richmond employees to the Marina area, AC Transit's Route 74 is heavily utilized during the commute hours. The discontinuation of a shuttle service from the State Department of Health Services to the El Cerrito del Norte station has also contributed to increased ridership on this route. Many patrons, however, believe the service level--at half hour headways--is too low and does little to encourage commuting. Those who arrive by BART or Capitol Corridor and miss the bus often choose to walk to the Marina, a half hour walk in good weather.

Golden Gate Transit operates Route 40/42, which provides direct service to San Rafael in Marin County. Route 40/42 is partially funded by a consortium of transit operators and MTC in order to ensure transit access across the Richmond-San Rafael Bridge. The route was expanded several years ago to provide service for Richmond residents wishing to access jobs in San Rafael. Funding from MTC's Low Income Flexible Transportation (LIFT) program and the

federal Jobs Access and Reverse Commute (JARC) program have helped support this service. Most service is via Route 42, which serves Richmond BART and commercial areas of San Rafael. Approximately 60,000 passengers get on and off at the Richmond Station annually.

No shuttles currently serve the Richmond Station.

AC Transit 72 Line

5.4 AC Transit's West County Service Plan

AC Transit is currently reviewing the service it provides in west Contra Costa County. Through automated passenger counting (APC) equipment, AC is able to track ridership levels on each of the routes that serve the Richmond and both El Cerrito stations. Preliminary results show that routes serving these stations have adequate ridership; however, the agency may alter schedules to better reflect run times. The study will be completed late summer 2004, and both AC Transit and BART will be able to review the results.

5.5 Regional Measure 2 and Measure C Reauthorization

In March 2004, the Bay Area voters passed Regional Measure 2, which raises from $2 to $3 the toll on the Bay Area's seven state-owned bridges. Regional Measure 2 provides $65 million for the operation of owl (late night) bus service between BART stations as well as additional funding for express bus services in the I-80 corridor. Owl service will provide transit for individuals working night or late swing shifts. Preliminary plans by AC Transit indicate that hourly service between BART stations may be provided during the hours that BART is not operating--namely, between 1:00 a.m. and 4:00 a.m. each weekday and longer hours on weekends. Providing owl service will increase the activity at BART stations during the late night and early morning hours and may have implications for BART operations, maintenance and police. Over the next several months, BART and its

partners will have to address the issues (such as cleanliness, safety and security) associated with increased activity and hourly bus service into the station area.

Key strategies for increasing the bus transit mode share are:

- Encourage AC Transit to increase service frequencies on specific local transit routes to 15 minutes during the peak commute hours and add evening service on two local routes.
- Provide real-time bus information to make transfers more convenient.
- Maximize the use/improve the efficiency of existing bus bays to provide additional capacity for future bus expansion.

5.6 Rail Transit

The Capitol Corridor intercity rail service currently provides twelve roundtrips between Sacramento and Oakland with a stop at the Richmond intermodal station. By 2008, the service will increase to 16 roundtrips, providing critical regional service for BART riders and residents.

Capitol Corridor Train

Currently, average daily ridership at the Richmond Capitol Corridor station is approximately 220 boardings and 245 alightings. Anecdotal evidence indicates that upwards of 80% of patrons disembarking at Richmond board BART to head to other destinations in the region. A new Capitol Corridor station is planned for Hercules in 2008, which may affect the ridership at Richmond.

In addition to the planned increase in Capitol Corridor service, five counties (Contra Costa, Solano, Yolo, Sacramento and Placer) are studying the possibility of adding commuter rail service from Auburn to Oakland along the Capitol Corridor route. This additional service would provide half-hour headways for rail service from the Sacramento area to the Bay Area during commute hours.

This effort follows on the heels of a study completed in June 2003 by BART, the West Contra Costa Transportation Advisory Committee, the Metropolitan Transportation Commission and the Solano Transportation Authority, which evaluated the feasibility of extending rail service north of Richmond. The study explored both technologies and alignments that can deliver high-quality, frequent and cost-effective rail service in the I-80 corridor. The study recommended that Contra Costa County participate in funding additional Capitol Corridor commuter rail service, and that all parties continue to explore the concept of operating diesel-multiple unit rail technology from Richmond to Hercules.

As the Capitol Corridor intercity and commuter rail service is increased, rail will likely play a more significant role in the overall mode share at this station and will emphasize Richmond's role as an intermodal facility.

Key strategies for increasing the rail transit mode share include:

- Work with local jurisdictions and partners on increasing rail options in this corridor with connections to BART at Richmond.

5.7 Auto

Currently, there are 624 parking spaces at the Richmond Station. According to the most recent parking facility occupancy survey (completed in May 2004), approximately 42 regular parking spaces are available at 9:00 a.m. each weekday. There are no designated carpool or mid-day parking spaces at this station. The five-story parking garage that is part of the Richmond Transit Village includes 680 replacement and 120 new parking spaces. A city-owned lot that was adjacent to the BART parking lot on the west side of the station is currently being used as a construction loading zone, so total available parking in the station area has been reduced.

Many people currently drop off passengers in the red zone on the east side of the station. The RTV design includes drop off locations on both sides of the station.

In June 2002, the BART Board voted to allocate up to 25 percent of the parking spaces at BART stations as fee-based monthly reserved parking. This plan allows BART customers the option of reserving a parking space until 10:00 a.m. for a monthly fee. There are currently only two reserved parking passes issued at this station.

The key strategies for managing parking at this station include:

- Ensuring the security of the parking garage by adding security cameras.
- Utilizing parking management strategies such as designating carpooling and mid-day spaces and charging for long-term parking on the 5th floor of the garage, subject to BART Board approval.

5.8 Safety and Security

As mentioned earlier, safety and security have long been key issues at the Richmond Station and have acted as a deterrent to many potential users. Although the Richmond station ranked ninth overall in 2003 in the number of crimes occurring on BART station property, crime also occurs in the areas immediately adjacent to the station. The pathways to and from the station and local businesses and within the station area, especially the Nevin walkway, are poorly lit, lightly utilized, and in disrepair. BART police actively patrol the Richmond Station although their substation is located at El Cerrito del Norte BART. In addition, the aging of the station, the lack of properly maintained landscaping, and the preponderance of trash, especially on the west side of the station, lend to the station's current unsafe and unpleasant atmosphere.

The new residential and commercial development will add residents, shoppers and employees, which will greatly improve the overall feeling of safety and security in the station area. The new transit facility could house either a BART Police or a Richmond Police Department substation. A strong police presence would add a level of security not now evident at the station. Changing the perception of the

Richmond Station will encourage new riders, which in turn will support commercial and retail ventures in the area.

5.9 Richmond's Environmental Justice Grant

In 2002, BART was awarded a Caltrans grant to conduct outreach around three BART stations that lie within environmental justice communities. Environmental justice communities are those that have a high percentage of minority populations and/or a high percentage of low-income residents. To assist in this process, BART engaged the Neighborhood House of North Richmond, a community-based organization, Moore Iacofano and Goltsman (MIG), a local communications and transportation consulting firm, and Anthony Foster, a contract planner. Beginning in fall 2003, the team began an outreach process to employees, residents and current users of the Richmond Station. The purpose of the effort was to better understand how local residents and employees currently use BART and how that use could be better facilitated. Through surveys, interviews and focus groups, the planning effort will produce a set of access and station improvements to guide BART and its partners in future projects and programs to enhance the use of Richmond BART. This study will be completed by fall 2004.

5.9.1 Findings

The methodology for the analysis consists of conducting a survey of local employees, BART riders and local residents in order to understand what, if any, physical and program improvements could be implemented that would further encourage the use of Richmond BART. In this effort, BART and its partners conducted over 350 surveys. These surveys were crafted for each of three groups: employees of the two largest employers in the area--Kaiser Permanente and the federal Social Security payment facility--BART riders, and local residents. The surveys of local residents were conducted at area community events. Four focus groups are currently

underway to test the "findings" revealed through the survey process and to develop recommendations for access and program improvements. The focus groups consist of BART riders, non-BART riders, Spanish speaking residents and Laotian residents. Below are preliminary findings from this effort.

Overall Findings

- A total of 280 surveys were collected from employees working near the Richmond Station and from patrons using BART to leave Richmond: Social Security Administration Employees completed 114 surveys, Kaiser Permanente employees completed 89 surveys, BART patrons (those using BART to leave Richmond) completed 77 surveys.
- In addition to the 77 BART patrons surveyed, 70 SSA and Kaiser employees commuted by BART on the day they completed the survey (meaning 53% of all those surveyed commuted by BART): 10 Kaiser employees (12% of Kaiser employees surveyed) commuted to work by BART and 60 SSA employees (53%) commuted to work by BART.
- The most common means of commuting reported by Richmond employees was "drove vehicle alone": 35 SSA employees (31%) commuted alone by car and 55 Kaiser employees (66%) commuted alone by car.
- The majority of people surveyed were adult women, and many respondents were African American and professionals: 69% of Richmond employee respondents and 59% of BART patron respondents were women.
- The most common occupation reported by Richmond employees was "professional" (33%).
- 41% of BART patron respondents and 38% of Richmond employee respondents were African-American, while whites, Asians, and Hispanics also returned a significant number of surveys.

Summary of Trends

The survey results detailed below highlight several trends in BART ridership and satisfaction with BART services. In sum, these findings indicate the following:

- There is potential to conduct more outreach to female riders and analysis of transit needs particular to females, who report riding BART less often and less consistently than men and who report more feelings of "neutral" satisfaction or "dissatisfaction" with BART services and amenities than men.
- Outbound BART patrons in general expressed higher levels of satisfaction with BART services and amenities and less concerns about safety and cleanliness than in-coming BART commuters. These key differences between the experiences of outbound and incoming BART riders may indicate a need to probe the perceptions and experiences of riders further.
- Primary barriers to BART ridership for non-BART riders tend to relate to the expense and convenience of riding BART, whereas key barriers to increasing ridership for current BART riders also include expense, and also issues of safety around the station as well convenience of getting to BART on foot or via transit.
- Those surveyed would be encouraged to ride BART or ride more frequently by increasing safety measures around the station, enhancing transit to the station, and implementing various work-sponsored incentives and subsidies.

Trends in Ridership

Demographics:

- Gender—Males tend to ride BART more frequently and consistently and tend to be more satisfied with BART services overall. Of all Richmond employees surveyed, the majority of women drove alone to work (82%) while a majority of men commuted by BART (55%). In response to a series of questions about their satisfaction with BART's services and amenities, a majority of women consistently ranked their satisfaction as "neutral" while a majority of men ranked their satisfaction as "very satisfied." Of BART patrons surveyed, 82% of male respondents reported riding BART at least 3 times a week while only 72%

of female respondents reported riding BART this frequently.

Note that the information on gender of riders reported here is different from that reported in Section 3.4, Demographics. In Section 3.4, ridership at the Richmond Station is reported to be 63% female. This data was gathered on riders arriving at the station in the morning. Sixty percent of arrivals at the station are via auto, either drive alone, drop-off or carpool. In contrast, the 2004 environmental justice survey reported that only 17% of riders were female. This information was gathered in the morning from riders leaving the station, mostly non-Richmond residents arriving at worksites. Perceived lack of security for the trip from the station to the work place, presumably via foot or transit, may explain the lower female ridership found in the recent survey. The closure of Nevin Walkway during construction of Metro Walk, requiring a longer and circuitous walk to the Social Security and Kaiser Permanente Medical Center facilities, may also be temporarily reducing female BART ridership to these heavily female worksites.

- Age—Slightly older adults reported riding BART at higher rates. Of the Richmond employees surveyed, 55% of adults aged 46 to 60 rode BART whereas 31% of those ages 35 to 45 (the next highest rate) rode BART.
- Ethnicity—Several patterns emerged across different ethnicities as well. Whereas 45% of African-American Richmond employees commuted to work by BART, only 27% of whites (the next highest response rate) commuted by BART. Overall, whites more often reported being "very satisfied" when asked a series of questions concerning BART services and amenities than all other ethnicities.

Location:

- Incoming commuters tend to be less satisfied with BART services and amenities. On average across a variety of questions pertaining

to BART services and amenities, 62% of BART patrons, 46% of Kaiser employees (most of whom did not take BART), and 32% of SSA employees (most of whom did take BART) reported being "very satisfied."

BART Use:

- BART riders, both the patrons and employees surveyed, tend to ride frequently (77% of patrons and 76% of SSA employees who commuted by BART ride 3 times a week or more).
- The vast majority of all Richmond employee respondents (81%) reported that they do use BART for reasons other than work, most often for recreation or shopping.

Existing BART Access-to-Richmond Strengths:

- High percentages of all survey respondents reported being the most satisfied with BART's on-time performance (at least 60% of all groups surveyed).
- High numbers of all respondents also reported being satisfied with transfers between trains (68% of patrons and 50% of SSA employees).

Barriers for BART Riders:

- Getting to BART
  - 48% of patrons report driving or being dropped off at BART because other options take too long or they need a car for errands.
  - 65% of patrons reported being "neutral" or "dissatisfied" with AC transit service to BART.
- Station Issues
  - All respondents expressed a high degree of "neutral" satisfaction or "dissatisfaction" with safety and cleanliness issues. 49% of patrons and 77% of Richmond employees reported being "neutral" or "dissatisfied" with safety around the station. 47% of patrons and 72% of Richmond employees reported being "neutral" or "dissatisfied" with cleanliness in the station.

- BART Service
  - 47% of SSA employees reported that they did not take BART more often because BART is too expensive.
  - The two most common responses from both SSA and Kaiser employees as to why they do not take BART more often were "I need my car for business reasons" and "transit takes too much time."

5.9.2 Recommendations

The most commonly reported areas for improvement or improvements that would encourage people to take BART more often included the following:

Getting to BART:

- Increasing bus services to and from BART (44% of BART patron respondents).

Station Issues:

- Increasing police presence in and around BART (80% of SSA employee respondents and 70% of Kaiser employee respondents).
- Establishing a guaranteed ride home in case of emergency (28% of SSA employee respondents).
- Installing well-lit pathways around the station (64% of SSA employee respondents and 50% Kaiser employee respondents).

BART Service:

- Lowering BART fares and/or free transfers (83% of BART patron respondents).
- Establishing one ticket good on all transit (50% of BART patron respondents).
- Offering company subsidies for BART tickets (34% of Kaiser employee respondents and 42% of SSA employee respondents) and selling tickets or fare media at work (59% of Kaiser employee respondents and 32% of SSA employee respondents).

5.10 Access Recommendations

As a way of addressing the access issues identified above, the recommendations in this access plan focus on the following:

- Ensuring the safety and security of BART patrons by creating a network of safe walking routes to the station and improving public safety at the station;
- Assisting the City in its plans to revitalize the downtown area, and encouraging the City to add bicycle lanes and make streetscape improvements at and around the station area;
- Working closely with AC Transit to secure the funding necessary to provide commute-level feeder service to the station and other transit service improvements; and
- Pursuing the possibility of extending rail north of the Richmond station to provide commute level service further into western Contra Costa County and possibly Solano County.

Figure 15: Richmond Station Access Improvement Recommendations

Mode	Recommendation Map Reference Number and Description	S/M/L Term*	Lead	Funding Tier and Source**
WALK				
Pedestrian Routes	W1: **Streetscape** - Create safe pedestrian and bicycle friendly streetscape on Nevin Avenue between station and Civic Center.	S-M	City, BART	Tier 3: MTC's TLC program, Measure C Renewal Funds
	W2: **Wayfinding** - Provide wayfinding signs along Nevin, Barrett, and Macdonald avenues. Ensure the RTV signage and BART pathfinding signage are compatible.	L	BART	Tier 3: BART, City of Richmond
	W3: **Curb Cuts** - Reconfigure existing curb cuts on surrounding streets to make them perpendicular.	L	City	Tier 3: City of Richmond
	W4: **Curb Cuts** - Construct perpendicular curb cuts on Nevin Avenue between station and Civic Center; relocate utility poles that block access.	L	City	Tier 3: City of Richmond
Safety/Security	W5: **Lighting** - Provide adequate lighting throughout transit village.	S	------	FUNDED Tier 1: Included in Richmond Transit Village project
Transit Village Implementation	W6: **Security** - Locate police substation at intermodal facility	S	------	FUNDED Tier 1: Included in RTV project, Phase 2
	W7: **Walkway** - Provide pedestrian friendly walkway from Marina Way to station via the Nevin Walkway; elevate walkway to grade.	S	------	FUNDED Tier 1: Included in RTV project, Phase 2
	W8: **Ramp/walkway** - Alter grade of ramp on east side of station to provide ADA access.	S	------	FUNDED Tier 1: Included in RTV project, Phase 3
	W9: **Residential Development** – Provide residential development near the station.	S	------	FUNDED Tier 1: Included in RTV project

* (S) Short Term = Up to 2005, (M) Medium Term = 2006 to 2010, (L) Long Term = 2010 and After

** Funding Tiers: Tier 1 Existing BART Resources and/or Non-BART funds
Tier 2 Limited Parking Revenue Enhancement and/or Non-BART funds

Mode	Recommendation Map Reference Number and Description	S/M/L Term*	Lead	Funding Tier and Source**
BIKE				

Bike Routes	B1: **Bike Routes** -
	• Develop on-street bike lanes, and signage for the following key access bike routes:
	  • Macdonald Avenue from Richmond Parkway to San Pablo Avenue
	  • Harbour Way from Richmond Marina to Richmond BART station
	  • 17th/19 Street corridor from Richmond BART to Market Street in City of San Pablo
	• If new traffic lights are installed along key bike routes, if appropriate, provide bike signal activation.
		M, L	City
			
			City
				Tier 3: Regional or local bicycle/pedestrian programs, Measure C Renewal funds
				
				Tier 3: Regional or local bicycle/pedestrian programs, City of Richmond, Measure C Renewal funds

	B2: **Bike Turn Lane** - Create bicycle left turn lane into station on 19th, and at an appropriate entrance on the west side of the station.	L	City	Tier 3: Regional or local bicycle/pedestrian programs, City of Richmond, Measure C Renewal funds
Bike Facilities/ Amenities	B3: **Stair Channels** - Install bike stair channels at station entrances consistent with BART's Bicycle Access and Parking Plan.	M	BART	Tier 3: BART, Measure C Renewal funds
	B4: **Lockers/Racks** - Add metal perforated bicycle lockers to meet current demand, and additional racks in future, as demand warrants.	S	City, BART	FUNDED Tier 1: Included in RTV project
Security	B5: **Cameras** - Provide security cameras for bicycle parking area.	S	BART	Tier 3: BART

* (S) Short Term = Up to 2005, (M) Medium Term = 2006 to 2010, (L) Long Term = 2010 and After

** Funding Tiers: Tier 1 Existing BART Resources and/or Non-BART funds
Tier 2 Limited Parking Revenue Enhancement and/or Non-BART funds
Tier 3 Future BART Revenues TBD and/or Non-BART funds

Mode	Recommendation Map Reference Number and Description	S/M/L Term*	Lead	Funding Tier and Source**
BIKE				
	B6: **Wayfinding** - Add wayfinding signs within Richmond Transit Village and in surrounding neighborhoods.	S	-----	FUNDED Tier 1: Included in RTV project
TRANSIT				
	T1: **Service Expansion** -- Extend Route 76 to Hilltop Mall.	L	AC Transit	Tier 3: AC Transit, Measure C Reauthorization
	T2: **Real Time Information** -- Provide real time technology for all buses.	S	City, BART	FUNDED Tier 1: Included in RTV project
	T3: **Information** -- Provide bus route information at each designated stop.	S/M	AC Transit, Golden Gate Transit	Tier 3: Bus operators, Measure C Renewal funds
New Feeder Service	T4: **Shuttle Study** -- Conduct a study that would provide local transit service (complementary to existing AC Transit service) to North Richmond, Iron Triangle and the downtown Richmond neighborhoods and connect them to Richmond BART.	S/M	BART, MTC or AC Transit	Tier 3: Caltrans or BAAQMD

- (S) Short Term = Up to 2005, (M) Medium Term = 2006 to 2010, (L) Long Term = 2010 and After

** Funding Tiers: Tier 1 Existing BART Resources and/or Non-BART funds
Tier 2 Limited Parking Revenue Enhancement and/or Non-BART funds
Tier 3 Future BART Revenues TBD and/or Non-BART funds

Mode	Recommendation Map Reference Number and Description	S/M/L Term*	Lead	Funding Tier and Source**
TRANSIT				
	T5: **Shuttle Service** -- Implement shuttle service.	S/M	AC Transit, City	Tier 3: MTC's LIFT program, Measure C Renewal funds, AC Transit, BART, BAAQMD
	T6: **Passenger Amenities** - Provide passenger amenities at intermodal station including bus, rail and BART ticket vending and information, map of area, bicycle maps and locker rental information, other vendors such as coffee and news stand.	S	City	Intermodal Station FUNDED; staffing uncertain Tier 1: Included in RTV project, Phase 2
	T7: **Bus Bays** – Maintain existing and, if necessary, increase number of bus bays to provide additional capacity.	M	City, BART	Tier 3: BART, AC Transit, City, WCCTAC
	T8: **Capitol Corridor** - Increase Capitol Corridor service to 16 roundtrips by 2008.	M	Capitol Corridor JPA	FUNDED Tier 1: Capitol Corridor
	T9: **Other Rail** – Support additional commuter rail service along Capitol Corridor route from eastern counties.	M	CCTA, WCCTAC, partner counties	Tier 3: Unknown
AUTO				
Key Auto Routes	V1: **Wayfinding Signs** - Install/alter wayfinding signs from I-80 and Richmond Parkway to station.	M	BART	Tier 2: BART
	V2: **Wayfinding Signs** - Install wayfinding signs along Macdonald, Barrett to station.	M	BART	Tier 2: BART
Taxi	V3: **Signage/Enforcement** - • Provide clear signage for taxi zone. • Enforce 3-taxi limit.	M	BART	Tier 3: BART

- (S) Short Term = Up to 2005, (M) Medium Term = 2006 to 2010, (L) Long Term = 2010 and After

** Funding Tiers:
Tier 1 Existing BART Resources and/or Non-BART funds
Tier 2 Limited Parking Revenue Enhancement and/or Non-BART funds
Tier 3 Future BART Revenues TBD and/or Non-BART funds

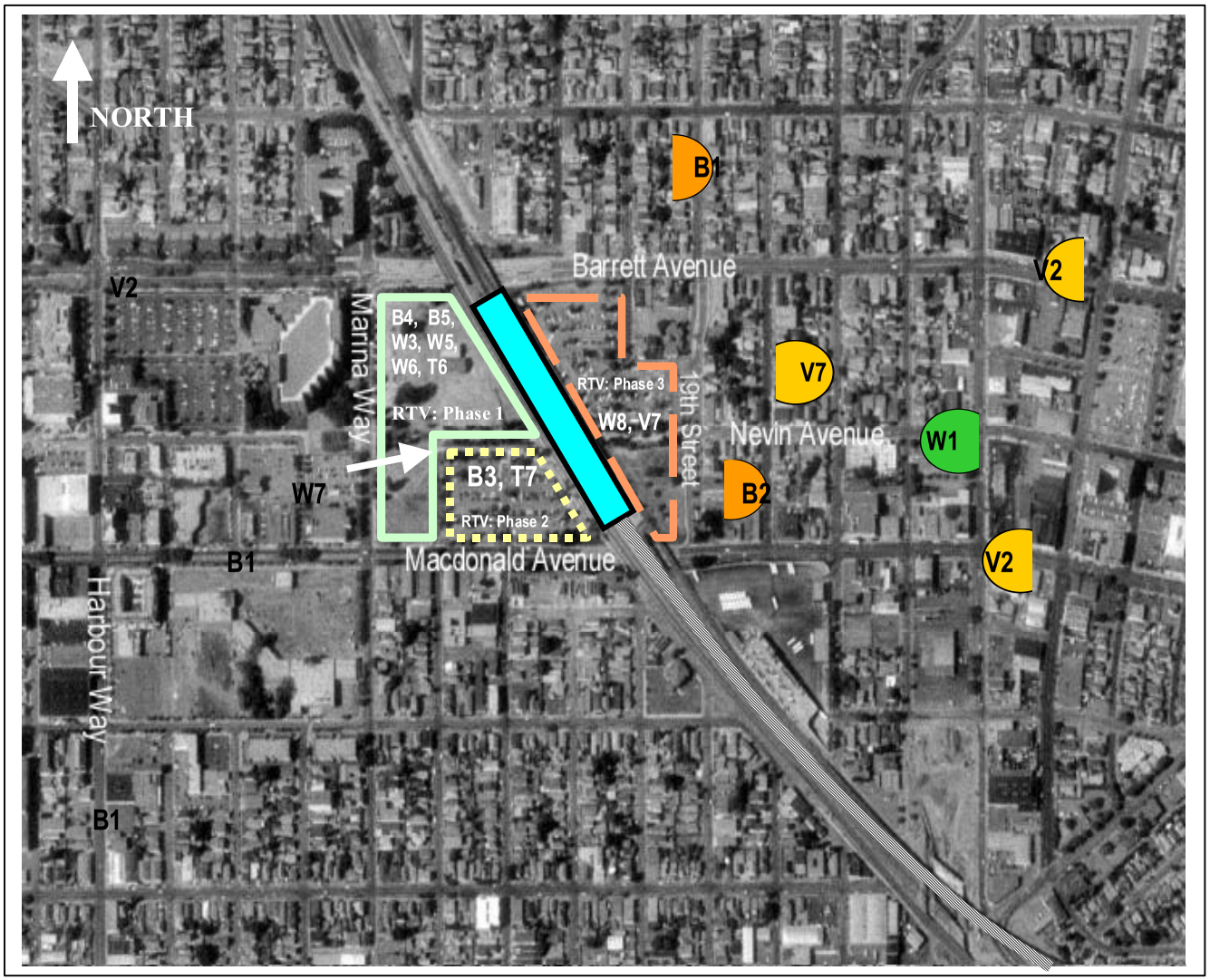
Mode	Recommendation Map Reference Number and Description	S/M/L Term*	Lead	Funding Tier and Source**
AUTO				
Transit Village Implementation	V4: **Carpool** - Designate carpool parking spaces in new parking garage.	S	BART, City	Parking Garage FUNDING UNCERTAIN Tier 1: Included in RTV project, Phase 2
	V5: **Kiss-n-Ride** - Clearly designate kiss-&-ride areas on both sides of station.	S	BART, City	FUNDING UNCERTAIN Tier 1: Included in RTV project, Phases 2 & 3
	V6: **Parking Charges** - Recommend charging for long-term parking on the 5th floor of the garage.	S	BART	N/A
	V7: **Cameras** - Provide color security cameras in new parking facility.	S/M	BART, City	Tier 2: BART
ALL MODES				
BART Station Intermodal Information Center	A1: **Information Center** - Designate a transit information center at the intermodal station. Display transit and bike maps, real-time transit information and other access brochures and publications.	S	City, BART, WCCTAC	FUNDED Tier 1: Included in RTV project
Station Beautification	A2: **Visual Improvements** - Provide landscaping and public art to beautify the station area.	S	City, BART, WCCTAC, developer	FUNDED Tier 1: Included in RTV project

- (S) Short Term = Up to 2005, (M) Medium Term = 2006 to 2010, (L) Long Term = 2010 and After

** Funding Tiers:
Tier 1 Existing BART Resources and/or Non-BART funds
Tier 2 Limited Parking Revenue Enhancement and/or Non-BART funds
Tier 3 Future BART Revenues TBD and/or Non-BART funds

Non-BART funds that may be available and appropriate for access improvements include Contra Costa County Measure C Reauthorization, MTC's Transportation for Livable Communities (TLC) and Low Income Flexible Transportation (LIFT) programs

Figure 16: Richmond BART Comprehensive Station Plan Recommendations and Future Development



WALK
W1: Streetscape
W5: Lighting
W6: Security
W7: Walkway
W8: Ramp/Walkway
W9: Residential Development

BIKE
B1: Bike Routes
B2: Bike Turn Lane
B3: Stair Channels
B4: Lockers/Racks
B5: Cameras

TRANSIT
T6: Passenger Amenities
T7: Bus Bays

AUTO
V2: Wayfinding Signs
V7: Kiss-n-Ride Area

6.0 Station Capacity and Functionality

6.1 Introduction

The purpose of the Station Capacity Plan is to anticipate and accommodate the capacity needs of a station as ridership grows over time by

- Informing pending and future development of the station area so as not to impede station expansions in the future;
- Identifying construction priorities and develop a conceptual understanding of the costs and time required to accomplish improvements; and
- Coordinating the timing and implementation of the capacity improvements with other projects and development activities that may occur in order to minimize disruption to the BART customer.

It is anticipated that the result of these efforts will be an improved customer experience leading to increased ridership of the BART system.

This section of the CSP summarizes the analysis for the Richmond Station that was completed as part of a systemwide assessment of BART Station Capacity in early 2003. That study found that there were minimal capacity needs at the Richmond Station given the anticipated ridership in 2025.

Richmond Station Platform

6.2 Core Stations Capacity Study

In early 2003, BART completed a study of station capacity needs for the core system of 39 stations in Alameda, Contra Costa and San Francisco counties. The "Core Stations Capacity Study," conducted jointly with VTA as part of the Silicon Valley Rapid Transit Project, analyzed station capacity performance based on patronage projections for 2025 with the addition of the extension. The goal of the study was to determine station capacity performance at each of the existing 39 core stations and develop a systemwide capital improvement program to bring stations into compliance with regulations in anticipation of future ridership increases and to meet BART's own capacity standards. Cost estimates for proposed capital improvements were also developed as part of the study effort.

Patronage projections for the horizon year 2025 generated specifically for the San Jose extension are more robust than BART's 2025 forecast. As a result, the Core Stations Capacity Study provides a conservative estimate of station capacity needs. The analysis of 2025 station capacity needs was based upon two conditions producing ridership estimates: the first, the core system "baseline estimate" that included the recently approved 5.4 mile extension to Warm Springs, and the second, with the proposed Silicon Valley BART extension to Santa Clara. The extension into Santa Clara County adds approximately 80,000 passengers per average weekday to the baseline estimate using the same 2025 horizon year.

When analyzing station capacity, two sets of patronage projections are necessary, "line load" and "station loads." Line load projections refer to the number of passengers on a train passing through a station. Line load volumes are important when measuring platform space requirements, stair and escalator capacity, as well as emergency egress capacity. These elements must be capable of accommodating passengers forced to off-load a

train or evacuate a station in the event of a delay or emergency. Station load projections are defined as the number of passengers entering and exiting a station. Station load projections are necessary to determine the size and count of Automatic Fare Collection equipment such as fare gates, addfare machines and ticket vending machines. Station load passenger volumes also contribute to calculations of platform, stair and escalator capacity based upon established performance goals.

The Core Stations Capacity Study relied upon a methodology that analyzed station capacity needs on a systemwide basis and developed in-depth capital improvement programs at four prototype stations: Embarcadero, Balboa Park, Walnut Creek and Bay Fair. Capital improvements derived from the prototype station analyses were then applied to other existing stations with similar characteristics and anticipated growth in order to develop a conceptual/theoretical estimate of systemwide capacity impacts and costs.

The analysis of station capacity was based upon measures of capacity and congestion established by the National Fire Protection Association (NFPA 130), the California Building Code (CBC, Section 414), industry best practices and BART's own performance standards. These measures govern three station design elements: platforms (side and center), vertical circulation (stairs and escalators), and AFC equipment (fare gates, addfare machines and ticket vending machines). The table on the next page summarizes station capacity measures.

Figure 17: Capacity Codes and Requirements

Element	Guideline	Source
Vertical Circulation Required for: Maximum Total Platform Exit Time	Must exit trainload and occupant load from platforms within 4 minutes (platforms act as a corridor under an Emergency Scenario)	NFPA 130 (2000), CBC (1998)
Vertical Circulation Required for: Time from Most Remote Point to a Point of Safety	Must exit trainload and occupant load from most remote point of platform to designated point of safety within 6 minutes	NFPA 130 (2000), CBC (1998)
Platform Delay Scenario: 12 minutes delay or one missed headway (whichever is greater) plus off-load train (in peak direction track)	5 square feet per passenger (off-load of train load to platform)	Industry Standard, BART adopted standard
AFC Gates	No more than 60-second delay at fare gate with one gate per array out of service in peak direction. No queue long enough to interfere with stair and escalator operations, or general concourse circulation.	BART adopted standard

To adequately understand how a station functions and operates from a capacity standpoint requires on-site study of passenger behavior and analysis of specific station characteristics. Because the Core Stations Capacity Study used prototype stations to extrapolate capital improvements and costs onto the entire system, the study represents a theoretical estimate of capacity solutions at all but the four prototype stations themselves. Therefore, the information contained in the Core Stations Capacity Study is a starting point for more detailed, site-specific analysis at stations that have been identified as requiring capacity improvements. Because the Richmond Station does not require significant capacity upgrades, the theoretical analysis produced

in the Core Stations Capacity Study represents its Capacity and Functionality Plan.

6.3 Current and Projected Ridership

The estimation of future capacity needs at Richmond Station is based on forecasts of future ridership determined by the Core Stations Capacity Study referenced above. These projections (presented below) anticipate a 93% growth in ridership from 2004 to 2025, from approximately 6,530 average weekday exits and entries in 2004 to 12,574 in 2025.

Figure 18: Richmond Station Average Weekday Ridership

	FY04*	2025**	
		Core Stations Impact Study	
		With San Jose Extension	Without San Jose Extension
Entries and Exits	6,530	12,574	12,632
Increase from FY04	--	93%	93%

*Source: BART Draft Short-Range Transit Plan (February 2004)
**Source: SVRT DEIR (October 2004)

6.4 Conceptual Richmond Station Capacity Plan

Richmond is an aerial center platform station. A set of stairs flanked on either side by escalators provides access from the paid area to the platform. An elevator is located opposite of the stair and escalator landing, inside of the paid area. There are currently six fare gates at this station, four reversible gates plus one entry and one exit gate. There is also an accessible fare gate. In addition, there are two addfare machines within the paid area and four ticket machines outside the paid area. One bicycle rack is currently located outside the paid area directly across from the station agent's booth.

The Richmond Station is unique in that it is the only station in the system that currently has a connection

with the Capitol Corridor intercity rail service and Amtrak. BART patrons must exit the BART system and climb a set of separate stairs (or take the elevator) to the Amtrak platform; there is no cross-platform transfer available.

6.5 Joint Development Context

As in other areas of the Comprehensive Station Plan, the analysis of capacity and functionality is dependent on the detailed development plan for the Richmond Transit Village. All proposed improvements will have no impact on the complete build out of the RTV.

6.6 Proposed Station Capacity Plan

The analysis of 2025 capacity needs at the Richmond Station has resulted in the following recommendations:

- Add fare gates (six)
- Add platform windscreens and canopy cover
- Expand paid area

Richmond Station Paid Area

Courtesy of Richmond Redevelopment Agency

Any improvement to BART stations must meet current Station Design Criteria and ADA accessibility requirements.

6.7 Vertical Circulation

Vertical circulation elements (stairs, escalators and elevators) serve two important and interconnected functions at BART stations: moving passengers between the fare gates and the platforms and evacuating passengers in the event of an emergency. The existing vertical circulation features at the Richmond Station are expected to adequately address both of these fundamental needs given projected 2025 ridership levels.

6.8 Platform Widening and Shelter

If station load and line load volumes increase to a level where safety and performance standards are compromised, platforms will have to be modified or expanded. Because projected ridership levels at the Richmond Station will not compromise platform standards, there is no need to expand the existing platforms.

While there is no need for platform improvements for the purposes of raising safety standards, there is a need to ensure greater patron comfort through certain platform-level modifications. Currently, a platform canopy is limited to the central platform area, covering the existing stairs and escalators. The addition of both windscreen and canopy cover extending the entire length of the platform will also encourage passengers to move toward the ends of the platforms. The windscreen and canopy configuration will meet NFPA recommendations to prevent smoke from being trapped in the platform area.

6.9 Expansion of the Paid Area

Station paid areas must be sufficient to handle passenger flow from the fare gates to the platforms and in the opposite direction. In addition, paid areas must house passenger amenities such as restrooms, transit transfer machines and parking validation machines. Station agent booths and staff facilities such as break rooms and meeting rooms are also needed, particularly at high volume stations where more staff is required. Finally, paid areas must serve as landing points for stairs, escalators and elevators from the platform.

Like many stations constructed relatively early in BART's development, the Richmond Station has a very small concourse paid area. The small footprint of the paid area currently results in congestion during commute hours. There is little space for patron amenities because even such basic elements as benches and trash receptacles are potential obstacles. With the need to add six additional fare gates, the paid area can be expanded to accommodate this additional equipment. This will have the added benefit of providing more space for passenger movement when exiting the station or after entering the paid area.

Because the capacity needs at this station are so minimal compared to other stations in the system, no plan was developed. Clearly more detailed work will be needed to implement the recommendations in this section.

6.10 Fare Collection

This capacity plan recommends an additional six fare gates to accommodate the demand generated by the 2025 ridership projections. Expanding the paid area will create greater flexibility for future expansion.

6.11 Safety and Security

Stations built prior to the 9-11 incident did not include a focus on security enhancements to the degree that BART intends to impose in future station capacity planning. The Warm Springs Extension Station will be the first station designed with additional security enhancements, with consideration given to available funding.

The following enhancements should be considered when designing changes to existing stations:

- Use blast-resistant refuse cans
- Add more cameras and monitors
- Add more lighting
- Provide clear lines of sight from station agents' booths
- Eliminate hidden alcoves in station area
- Install intrusion alarms

6.12 Preliminary Cost Estimate

The cost of adding six fare gates is approximately $1,152,000. No cost estimates have been developed for other recommendations in this section that are primarily for customer comfort and convenience rather than to provide additional capacity.