

8 San Francisco BART

OVERVIEW: TRANSIT SYSTEM CHARACTERISTICS

The Bay Area Rapid Transit (BART) District operates an 93-mile commuter rail system with 39 stations and primarily links suburban commuters to downtown San Francisco and Oakland. The system serves the counties of San Francisco, Alameda, Contra Costa, and portions of San Mateo County.

Segments of the BART system started operation in 1972, and the system was operatin in full by 1974, after the opening of the Transbay tube. Recent extensions have been constructed in the East Bay Counties. In Contra Costa County, the Pittsburg/Bay Point extension opened in 1996, and in Alameda County, the Dublin/Pleasanton extension opened in 1997. Each extension added two new stations and park-and-ride lots along major freeways in suburbanizing areas.

An additional extension to San Francisco International Airport is currently under construction and is scheduled to begin operation in 2002. The SFO extension will add five new stations to the system, including one inside the airport, and it will run through a predominantly built-out area. Station characteristics are shown in Table 8-1.

STATION AREA PLANNING FRAMEWORK

Many BART stations have been the focus of plans for transit-oriented development, in the form of joint development, area-wide planning, or both. Development at five stations - Montgomery, Hayward, Fruitvale, 16th Street/Mission, and Pleasant Hill - will be highlighted in this case study.²³ These stations represent a range of station types, communities, ridership levels, location, and surrounding urban form, and each relates to specific station types found in Seattle. The station areas have had varying success in transit-oriented development.

²³ The Oakland Coliseum BART station is currently being considered for a transit-oriented commercial project that would link the sports facility, the BART station, the proposed airport people mover, and the adjacent residential neighborhoods. However, the Coliseum station was not highlighted in this report, because no actual planning has been done so far. Interested parties - including BART, the City of Oakland, the Port of Oakland, and the Coliseum owners - recently signed an agreement to co-fund an initial study of the area that will be completed in summer 1999. (Interview with Michele Hightower, City of Oakland, 5/1/98.)

Table 8-1.
BART STATION CHARACTERISTICS

	<i>1997 Average Weekday Exits</i>	<i>Type of Structure</i>	<i>Parking Lot?</i>	<i>Surrounding Urban Form</i>
<u>Downtown SF</u>				
Civic Center	11,958	Tunnel	No	Urban Core
Powell	17,548	Tunnel	No	Urban Core
Montgomery	32,065	Tunnel	No	Urban Core
Embarcadero	25,809	Tunnel	No	Urban Core
<u>Downtown Oakland</u>				
West Oakland	3,501	Aerial	Yes	Urban Residential
12th Street	9,620	Tunnel	No	Urban Core
19th Street	7,147	Tunnel	No	Urban Core
MacArthur	5,019	Aerial	Yes	Urban Commercial
<u>Richmond Line</u>				
Richmond	2,832	Aerial	Yes	Urban Residential
El Cerrito Del Norte	7,455	Aerial	Yes	Shopping Strip
El Cerrito Plaza	3,769	Aerial	Yes	Shopping Strip
North Berkeley	3,190	Tunnel	Yes	Urban Residential
Berkeley	9,696	Tunnel	No	Urban Core
Ashby	3,454	Tunnel	Yes	Urban Residential
<u>Pittsburg Line</u>				
Pittsburg/Bay Point	3,480	Grade	Yes	Highway
North Concord	1,541	Grade	Yes	Highway
Concord	5,351	Aerial	Yes	Suburban Office Center
Pleasant Hill	6,214	Aerial	Yes	Suburban Office Center
Walnut Creek	5,668	Aerial	Yes	Suburban Office Center
Lafayette	2,949	Aerial	Yes	Suburban / Semi-Rural
Orinda	2,771	Aerial	Yes	Suburban / Semi-Rural
Rockridge	4,526	Aerial	Yes	Urban Neighborhood Center
<u>Dublin Line</u>				
Dublin/				
Pleasanton	3,913	Grade	Yes	Highway
Castro Valley	1,405	Grade	Yes	Highway

Table 8-1.
BART STATION CHARACTERISTICS

	<i>1997 Average Weekday Exits</i>	<i>Type of Structure</i>	<i>Parking Lot?</i>	<i>Surrounding Urban Form</i>
<u>Fremont Line</u>				
Fremont	5,452	Aerial	Yes	Suburban Commercial
Union City	3,590	Aerial	Yes	Suburban Commercial
South Hayward	2,754	Aerial	Yes	Suburban Commercial
Hayward	4,493	Aerial	Yes	Urban Neighborhood Center
Bayfair	4,650	Aerial	Yes	Suburban Commercial
San Leandro	4,197	Aerial	Yes	Suburban Commercial
Coliseum	4,909	Aerial	Yes	Suburban Commercial
Fruitvale	6,141	Aerial	Yes	Urban Neighborhood Center
Lake Merrit	3,348	Tunnel	Yes	Urban Core
<u>Colma Line</u>				
Colma	5,946	Grade	Yes	Urban Residential
Daly City	6,459	Aerial	Yes	Urban Residential
Balboa Park	9,742	Aerial	Yes	Urban Residential
Glen Park	6,133	Tunnel	Yes	Urban Residential
24th St. Mission	8,934	Tunnel	No	Urban Neighborhood Center
16th St. Mission	6,295	Tunnel	No	Urban Neighborhood Center

Source: Bay Area Rapid Transit District, Dyett & Bhatia.

MONTGOMERY

The Montgomery Street Station is located in downtown San Francisco and has the highest level of ridership of any station on the BART system. Montgomery station has not been the target of a concerted station area plan or a joint development project, but in the 1960s, the City and County of San Francisco adopted zoning that intentionally directed high-rise office development toward the Montgomery station and the three other downtown BART stations along Market Street because the financial district depends on BART for bringing in commuters from suburban areas. Maximum building heights were increased to 700 feet at Montgomery Street, stepping down to 600 feet at the Embarcadero Street station to the east and 400 feet at the Powell Street station to the west. (Buildings in the immediate vicinity of the Powell Street station were limited to 160 feet to allow light into the open place and cable car turnstyle and create a visual connection with the adjacent retail district.)

After the BART system was fully operational in 1974, approximately 28 million square feet of office space was constructed in downtown San Francisco, most of which was built within a

one-quarter mile of one of the BART stations. The City's Downtown Plan directed new office development to the area, and development was supported to two implementing actions.

- A Redevelopment Agency was formed, and one of the agency's first large projects was to redevelop the South of Market area, immediately to the south and east of the downtown BART stations.
- Also, the City significantly increased allowable floor area ratios within 700 feet of stations and provided density bonuses for buildings adjacent to downtown stations.

These initiatives were complemented by a \$15 million program for street improvements along Market Street, which was funded through tax increment financing. The office development was made possible by strong regional economic growth, and city policies were effective in channeling downtown office development toward the City's main transit corridor.²⁴

HAYWARD

The Hayward BART station is located approximately 40 miles southeast of San Francisco. In the early 1990s, the City commissioned Dan Solomon, FAIA, Architect to prepare a plan for the site, and the resulting 1992 Core Area Plan proposed a mix of multi-family housing, retail, and a series of civic plazas linking the BART station to Hayward's nearby historic downtown. Hayward's experience shows how TOD can be used effectively to link a transit station with an existing commercial area. Also, the use of a comprehensive station area plan in conjunction with redevelopment efforts is making the Hayward BART station one of the more successful transit-oriented projects in San Francisco region.²⁵

The Core Area Plan approaches downtown revitalization by addressing several elements of the downtown area individually, including the BART focal point, housing, business revitalization on B Street, cultural activities, boundaries and edges, and the earthquake fault corridor. Also, the plan recommends a phasing strategy according to which all planning elements would be initiated and developed in coordination over time. Although the plan does not actually out-line implementation strategies, the strong conceptual framework, the breakdown of the plan into manageable elements, and the phasing strategy have created a strong foundation

²⁴ Robert Cervero et al. *BART @ 20 Series: Land Use and Development Impacts*. Berkeley: University of California Transportation Center, May 1996.

²⁵ At the El Cerrito Plaza and El Cerrito Del Norte BART Stations, no master plans were developed. Instead, the City of El Cerrito's Redevelopment Agency has attempted to find a master developer to plan and develop the area around the BART stations and parking lots. This approach has been less successful than the Hayward approach, because the private developer is forced to assume all the financial risk and upfront planning costs. Also, because little upfront planning was done, developers have encountered community opposition after they have developed their plans. (Interview with Gerald Raycraft, City of El Cerrito, 5/12/98; City of El Cerrito Redevelopment Agency Agenda Bill "Study Session to Establish Agency Board Desired Outcomes for the Mayfair Development Site," March 2, 1998; City of El Cerrito Redevelopment Agency Agenda Bill "Report by American Properties, Inc. and the El Cerrito Plaza Company on the progress of their negotiations on a proposed Revitalization Plan for the El Cerrito Plaza Shopping Center," May 4, 1998)

for im-plementation.²⁶

The Hayward Redevelopment Agency has played a key role in encouraging development by assembling land and making the necessary infrastructure improvements. Construction of the first transit-oriented housing project in 1995, Atherton Place, added 86 units one block from the BART station. Today, the units are completely occupied. BART sold land to the Hayward Redevelopment Agency to make the project possible.



The 1992 Core Area Plan has helped improve the linkages between the BART station and downtown. This is one of the more successful transit-oriented projects in the San Francisco Bay Area.

Currently, the City is building a new city hall, which includes a parking garage, 130,000 square feet of offices, and a pedestrian plaza adjacent to the BART station.²⁷ The City and BART swapped and reconfigured land in order to make the project possible. The project has introduced 300 new employees into the area. The Hayward Redevelopment Agency will seek to purchase a 7-acre former BART parking lot in the vicinity of the station for an 80-unit residential townhouse project adjacent to the new city hall.²⁸

²⁶ City of Hayward. Core Area Plan: A Component of the Downtown Hayward Design Plan, prepared by Dan Solomon (July 1992).

²⁷ Interview with the Assistant City Manager Gordon Anderson, City of Hayward, 5/8/98.

²⁸ Interview with Merrit Bartlett, Director of Redevelopment Agency, City of Hayward, 5/19/98.

FRUITVALE

The Fruitvale BART station serves as an example of how to use TOD to link existing commercial development with transit stations. It also demonstrates the use of community-based transit-oriented development as part of an overall strategy for low-income neighborhoods.

The Fruitvale BART station is located approximately four miles from downtown Oakland. Currently, the station is flanked by a large surface parking lot, and AC Transit buses connect the station to areas throughout the East Bay. The station is within walking distance of a traditional neighborhood commercial center on International Boulevard (also called East 14th Street). The Fruitvale commercial core is separated from the BART station by large surface parking lots. The Fruitvale neighborhood consists largely of detached single-family and multi-family housing. Residents of the area are predominantly Hispanic, many of whom are first-generation immigrants. Recently there has also been an influx of East Asian immigrants, primarily Vietnamese, into the neighborhood.

Initial Community Planning Efforts

The inspiration for the Fruitvale Transit Village came in the spring of 1991 with a study conducted by the University-Oakland Metropolitan Forum, a collaborative effort between the University of California, Berkeley and the City of Oakland. The study evaluated the community and economic development potential of the Fruitvale neighborhood, which had gone through a period of disinvestment and job loss during the previous decades. The study suggested integrating the existing commercial district with transit service, focusing around the Fruitvale BART Station.

At about the same time as the University-Oakland Metropolitan Forum study, BART proposed building a parking structure on its surface lots to provide additional commuter parking. Several local groups, including the Spanish Speaking Unity Council (a community development corporation founded in 1964), strongly opposed the initial plans to build a garage and later worked with BART to identify planning alternatives. These discussions led to the creation of the Fruitvale Transit Village project, and the formation by the Spanish Speaking Unity Council (SSUC) of the Fruitvale Development Corporation (FDC) for purposes of developing the mixed-use, public/private project.

The SSUC used seed money from the FTA to sponsor a series of community design charrettes, bringing together the various ethnic groups in the area as well as local merchants. As a result of this process, the community generally agreed that the BART surface parking lots and surrounding area should incorporate more housing and services, remain at a local scale with buildings of no more than three stories, and acknowledge the needs of two growing populations: young families and the elderly. The goals of the project are to provide enhanced linkages between BART and the struggling commercial strip along International Boulevard, to develop additional retail opportunities to meet local needs, and to provide community services (such as a library, health clinic, and child care).

BART relinquished its structured parking proposal and agreed to work with the SSUC and neighborhood to pursue a different type of development. BART also signed a Memorandum

of Understanding with the SSUC, allowing them the exclusive right of negotiating on behalf of the community. This marked a first for BART, which had previously pursued competitive bidding for any joint-development projects on BART-owned land.

Market Analysis

The SSUC sponsored a market analysis as a basis for developing a specific development and phasing program. The market review study conducted in January 1995²⁹ showed that most new uses would not be feasible without public support. Required commercial subsidies ranged from \$23,000 for a small supermarket to \$8 million for 150,000 square feet of office space; for residential uses, estimates ranged from \$1.5 million on for-sale properties to \$7.8 million for high-rise apartments. The study assumed that the expected federal assistance would make some projects feasible, especially housing.

In addition, the study found that the market would support townhomes of 1,100 square feet for \$125,000 per unit, or apartments of 775 square feet for \$600 monthly rent. The study also pointed out potential demand for retail and residential space that is not captured in official statistics, for several reasons: immigrants are often undercounted in the census; crowding in existing housing shows the need for additional construction; and much economic activity is carried out on a cash basis. Finally, the study pointed out Fruitvale's potential to become a retail and community center for the Hispanic population in a wider area.

Station Area Planning and Joint Development

The SSUC initiated the planning process by developing concepts for a station-area specific plan. The focus of the project was to meet community service needs, including health care, childcare, and senior housing. Planning also attempted to accommodate parking structures that would replace the BART surface parking lot. In 1994, SSUC hired a consulting firm to develop a conceptual site plan, which includes a public plaza, child care, senior housing, parking structures, medical and office uses, and ground-floor retail. The plan links the BART station to the commercial corridor on East 14th Street, where street and facade improvements have already been initiated in conjunction with the Transit Village project. The SSUC managed to secure CDBG and US DOT planning and development funds, and it is currently initiating the specific plans and design for the site.

Environmental review was completed and approved in early May 1998. The SSUC avoided a lengthy California Environmental Quality Act (CEQA) review by declaring that the project would have no negative impacts on the surrounding areas. This shortened process revealed that the proposed project would worsen traffic congestion in some places, and as a result, one planned street closure has been abandoned. Overall, though, the project has not changed significantly as the result of environmental review.

The FDC and the SSUC have not finalized a project development schedule. However, the lo-

²⁹ Phase II Report: Feasibility Analysis Framework, Fruitvale Transit Village, prepared by Keyser Marston Associates, January 1995.

cal non-profits will hold a ceremonial project ground breaking tentatively scheduled for September 1998, with actual construction beginning in spring 1999. In addition, Las Bougainvilles, a 68-unit senior housing project located adjacent to the Fruitvale Transit Village development, celebrated its grand opening in May 1998.

16TH STREET/MISSION

An Evolving Framework for Community-Oriented Design

Across the Bay from Fruitvale, the 16th Street Mission BART Station in San Francisco is located in a similar neighborhood of lower-income immigrant families. Since 1996, community organizations have initiated a process to re-design the station area for better pedestrian access and aesthetics. The 16th Street Mission project offers a similar example of community-based station design, although on a much smaller scale than Fruitvale.

Access and egress to the underground heavy rail system at 16th Street is located on two plazas at the northeast and southwest corners of Mission Street. The plazas are roughly square in shape, and have large openings for escalators and stairways located in the center of each plaza, at 45 degrees from the street. The escalator/stairway openings face the back corner of each plaza. Security bars have been placed along the back edges of the plaza to protect the one-foot wide planters that have minimal landscaping. The plaza designs have not changed significantly since the BART system opened.

The corner of 16th and Mission Streets is a lively urban commercial district. However, many residents and transit patrons pass quickly and uneasily through the BART plaza because the plaza are frequented by drug dealers, the homeless and evangelical speakers. Although the city has identified a lack of open space in this portion of the Mission, the plazas are essentially underutilized.

Mission Housing Development Corporation (MHDC), a non-profit developer that primarily develops and maintains low-income housing in San Francisco's Mission District, became interested in the redesign of the 16th Street BART Station as a means to improving the neighborhood. In 1995, MHDC co-sponsored a series of workshops with the San Francisco Supervisor Susan Leal and the FTA's Livable Communities Initiative (LCI). As a result of the workshops, the City received funds for pedestrian-scaled lighting stanchions that have been installed along Mission Street from 16th to 24th Streets.

In consultation with city staff, transit agencies and residents, MHDC next developed a work plan to involve all of stakeholders in a planning process to redesign and fund improvements at the BART Station. MHDC began collaborating with Urban Ecology (UE), an Oakland non-profit that has a community design expertise. MHDC held an initial community meeting, "Reshaping 16th and Mission," on November 13, 1996. MHDC and UE were assisted by the Project for Public Spaces, a New York-based non-profit group that specializes in promoting quality public spaces and redesigning plazas in urban areas. Participants in the workshop included members of the 16th Street/North Mission Neighborhood Association, representatives of BART, MUNI, and the Police Department, local merchants, non-profit agencies, and

members of the Mission District Enterprise Community Steering Committee.

Participants were split into small focus groups in order to identify community concerns and discuss ways to address these concerns. Existing issues and problems included public safety, poor physical design, and inadequate transit amenities. Participants developed the idea to allow vendors onto the plaza space, making it into an animated, outdoor market area.

Due in part to the enthusiasm generated by the workshop, MHDC was able to garner financial support for the BART plaza redesign from BART, and the Metropolitan Transportation Commission (MTC), the regional transportation funding agency. MTC was initiating a new land use and transportation planning program called Transportation for Livable Communities (TLC), and the 16th Street BART Station redesign was one of the initial recipients of funds. MHDC intended to implement the planning process to develop community support for a redesigned plan.

After three additional public workshops, a design charrette with a volunteer team of design and transit professionals, and a series of focused meetings with stakeholders, MHDC and UE developed station area design. The recommended design, which was received with praise by residents, included a small community center on the northern plaza, with vendor stalls on the southern plaza. The design team recommended increasing the amount of surface space in the plaza by reducing the size of the opening for the escalators and stairways. The additional space would be used for a small amphitheater and landscaping.

MHDC and UE have recently presented their plaza redesign plans as invited guests to several influential Bay Area forums in order to generate additional support for the project. At this time, MHDC is seeking funds to begin project design and construction.

PLEASANT HILL

The Pleasant Hill BART Station is located approximately 30 miles northeast of downtown San Francisco. Initial planning for the Pleasant Hill BART station began in 1981, when the County selected Sedway Cooke and Associates to develop a station area plan. The resulting plan established a mix of office, residential, retail, and public open spaces around the station, and parts of the plan were carried out over the next twelve years. The experiences at the Pleasant Hill BART station provides an example of large-scale station-area commercial development; Seattle may consider this example in planning for the Northgate station area, where large-scale commercial land uses already exist.

During the office development boom in the 1980s, several large office buildings were constructed in the vicinity of the station, and several multi-family housing developments were built as well. The Contra Costa County Redevelopment Agency helped spur development by assembling land and paying for infrastructure and road improvements.

Despite the accumulation of transit-supportive land uses, however, pedestrian connections between the station and nearby areas are still weak. An 11.4-acre parking lot surrounds the station and prevents effective walking connections. The County's Specific Plan establishes strong policies for pedestrian connections; policies focus on providing ground-level pedes-

trian routes and safety infrastructure (including pedestrian overcrossings). There is no policy for creating interesting or attractive pedestrian environments that are correlated with land uses, and little mention is made of building orientation, facades, or street lighting, all of which influence pedestrian access and comfort. Such provisions are particularly lacking in Pleasant Hill, where existing pedestrian connections are weak and require improvement.

Proposed Joint Development

In early 1995, BART issued a Request for Proposals (RFP) for developing its surface parking lots. Six proposals were received, and BART selected an entertainment village concept proposed by Millennium Partners and Western Development Group. Proposed uses near the station included cinemas, entertainment, retail, business and employee support services, and structured parking to replace the surface parking lot. The plans were stalled, however, when surrounding City governments complained that the plans for an entertainment complex did not match their own long-term entertainment development goals. Community and cultural uses were proposed as an alternative.

The County's Proposed Amended 1997 Pleasant Hill BART Station Area Specific Plan changes use regulations for the station area such that any theater uses would require conditional approval of the zoning administrator, and community uses would be newly permitted by right. These include day care facilities, medical offices, public offices and institutions, schools, public open space, and other similar uses.³⁰ For the moment, joint development projects are on hold pending review of the specific plan.



The county's Specific Plan for the Pleasant Hill BART station area established policies for mixed-use development and strong pedestrian connections.

³⁰ Contra Costa County, Proposed Amended Pleasant Hill BART Station Area Specific Plan (June 1997), 23-4.

STATION AREA DEVELOPMENT TRENDS

Because BART was the first major urban transit system in the second part of the twentieth century, BART has been the subject of detailed land use and development studies over its lifetime. It is safe to say that more funding has been allocated to studying the characteristics and impacts of BART system than any other urban rail system in North America.

The BART Impact Studies of 1978 provided ground-breaking analysis of the impacts of transit on urban areas. More recently, the BART @ 20 Series was prepared through the University of California Transportation Center in 1995; it revisits the 1978 analysis and provides a more long-term perspective on the BART system.

These two impact analysis provide a detailed database of changes in building square feet over time;³¹ the database provides a valuable look at how development had changed at stations over the life of the BART system. Changes in building square feet do not exactly indicate how actual parcels of land have changed in use over time, but they do indicate the type of development that has grown up around the stations, suggesting changes in the activities and uses of the area.

DEVELOPMENT TRENDS FOR SPECIFIC STATIONS

Although all four BART stations in downtown San Francisco have been the focus of intensive office and commercial development, Montgomery station has probably seen more intensive development than any other. The area immediately around the station is zoned for the highest FARs and allowable building heights in the city, and numerous tall skyscrapers were built there before the 1992-96 recession.³² The intensity of office space is corroborated by the fact that ridership at Montgomery station is higher than at any other station on the BART system.

Between 1973 and 1993, the Hayward BART Station was the focus of little development overall. The City changed its land use policies to allow for more multi-family housing development. Since 1993, the station area has experienced additional multi-family housing development. More than 80 units were constructed in 1995, and an additional 86 will be constructed as the second phase of the City Hall area development.

³¹ For the BART @ 20 series, land use changes were tracked through the TRW-REDI database, which provides on-line, digitized records on the square footage, lot area, year of construction, and other statistics for individual parcels of land. Land uses were studied for areas within one-quarter mile of downtown stations and within one-half mile of non-downtown stations. Robert Cervero et al. BART @ 20 Series: Land Use and Development Impacts. Berkeley: University of California Transportation Center, May 1996.

³² San Francisco Department of City Planning, The Downtown Plan. (San Francisco: Department of City Planning, August 1983), 25, 85.

As in Hayward, the Fruitvale BART Station has seen very little recent construction. Currently, the area has a diverse mix of land uses that include residential, retail, industrial, institutional and public uses, and vacant lots. The evolving Transit Village plan will increase the amount of new multi-family housing, office, and retail uses in the station area. The first of three phases of the Fruitvale Transit Village will be located on approximately 15 acres of land, of which BART owns about 10 acres. The specific land use changes are outlined in Table 8-2. Subsequent phases will add another 175-200 housing units and additional retail space.

Table 8-2.
PROPOSED DEVELOPMENT AROUND FRUITVALE
BART STATION, PHASE 1

Multi-Family Residential	15	Units
Commercial	44,000	Sq. Ft.
Mixed-Use	55,000	Sq. Ft.
Office	63,500	Sq. Ft.
Industrial	0	Sq. Ft.

Sources: Spanish Speaking Unity Council, Fruitvale Transit Village Initial Study/Environmental Assessment.

As shown in Table 8-3, the area around the Pleasant Hill BART station has been the focus of extensive multi-family, office, and commercial development. The 1982 Sedway and Cooke effectively channeled intensive development to the station area, even though joint development plans have been stalled.

DEVELOPMENT TRENDS OVER TIME

Table 8-4 shows changes in the findings of the two major BART impacts studies, the first from 1978 and the second from 1995. The table reveals several changes in BART's impacts over time as they relate to office construction, residential construction, and residential prices and rents.

Office Construction

Office development generally displayed the same patterns in 1995 as in 1978. The Bay Area experienced increasing decentralization of office space, while BART helped maintain the primary of San Francisco as the main office center in the region. The 1995 analysis noticed two additional trends:

- Offices clustered around certain suburban stations where land use policies were conducive, particularly at Concord, Pleasant Hill, and Walnut Creek.
- As in San Francisco, downtown Oakland benefited from the good regional access provided by BART. Downtown Oakland doubled its office space between 1979 and 1993.

Table 8-3.
CHANGES IN BUILDING AREA AROUND BART STATIONS, 1973-93 (square feet of building area)

	1973	1993
<u>Pleasant Hill</u>		
Multi-Family Residential	2,517,521	3,019,426
Single-Family Residential	6,195	6,195
Commercial	17,317,334	21,108,978
Mixed-Use	2,563,274	4,036,438
Office	24,412,374	42,624,957
Industrial	867,119	867,119
Parking Structure	163,550	267,628
<u>Hayward</u>		
Multi-Family Residential	61,706	135,062
Single-Family Residential	852,315	852,315
Note: data on other uses is not available.		
<u>Fruitvale</u>		
Multi-Family Residential	768,063	845,669
Single-Family Residential	691,654	698,803
Commercial	100,093	100,093
Mixed-Use	145,468	145,468
Office	49,132	49,132
Industrial	379,824	392,624
<u>Pleasant Hill</u>		
Multi-Family Residential	543,017	1,748,530
Single-Family Residential	625,827	694,828
Commercial	126,048	437,378
Mixed-Use	0	0
Office	8,342	1,152,359
Industrial	0	2,094

Source: Robert Cervero et al., *Land Use and Development Impacts in the series BART @ 20*. (Berkeley: University of California Transportation Center, 1995).

Residential Construction

The 1978 findings showed little residential development around BART stations overall, but BART stations experienced much more multi-family residential development by 1995. In 1978, several factors discouraged the development of multi-family housing around stations: lack of demand for high-density housing in the suburbs, continued automobile reliance, and preference for single-family residences. In 1995, increasing housing costs and worsening traffic congestion have created new demand for moderate and high-density housing in proximity to transit, particularly for young professionals who work in downtown San Francisco or Oakland. This observation suggests that urban transit systems may have little immediate effect on residential development patterns. However, with the right land use policies and market conditions, station areas can attract large-scale residential development over time.

Commercial Price and Rent

Whereas the 1978 study found small rent increases for offices near BART in downtown San Francisco, downtown Oakland, the Mission District of San Francisco, and Walnut Creek, the 1995 study found no significant rent premiums when comparing offices within a 1/4-mile or 1/2 miles radius of the downtown San Francisco BART stations with other offices citywide. The 1995 study focused on buildings with more than 15,000 square feet of office space, most of which are located in the downtown area.

The lack of significant rent premiums in downtown San Francisco does not necessarily suggest that BART has no impact on office rents. In 1986, San Francisco voters passed Measure M, which limited annual office construction to 400,000 square feet. In effect, the supply of office space in downtown San Francisco falls far below demand, and thus, the whole downtown area commands a rent premium relative to other office centers. It is uncertain whether rent premiums would show up in San Francisco in the absence of the limiting features of Measure M.

Also, it is unclear from the 1995 study whether different classes of office space would have rent premiums in downtown areas. The 1978 study found rent premiums near BART stations in downtown Oakland for Class A office space only, but the 1995 study did not distinguish between Class A and other classes of office space.

Residential Price and Rent

The 1978 impact analysis found no residential rent premiums around BART stations, but the BART @ 20 Series cites a 1992 study found evidence of rent premiums per square foot for one and two-bedroom units around the Pleasant Hill BART station, compared to similar units farther away from the station in the same submarket. However, no statistical analysis accompanied this observation, so there is no definitive proof of increasing rents with proximity to BART stations. More often rents vary by the location, size, quality, and amenities of the housing unit.

Table 8-4.

COMPARISON OF BART IMPACT STUDIES: 1978 vs. 1995

	BART Impact Studies, 1978	BART @ 20, 1995
<u>Location Decisions</u>		
Workers' Location Decisions	BART is minor in job decisions; 57% of San Francisco workers living in East Bay considered BART in choosing a job location.	Analysis not updated.
Households' Location Decisions	BART is minor in housing decisions, compared to housing type, access to workplace, & neighborhood characteristics; greater effect on suburban than urban households.	Analysis not updated.
Employers' Location Decisions	BART is minor in employer locations decisions, but may encourage some firms to stay in center city.	Analysis not updated.
<u>Development Decisions</u>		
Office Construction	Regionally, no redistribution of office space due to BART.	Analysis confirms 1978 findings, but notes suburban office nodes where allowed by local zoning (Walnut Creek, Pleasant Hill, Concord).
	Increasing decentralization of office space, but primacy of SF is maintained.	Analysis confirms 1978 findings; BART access helped office development in Oakland.
	In downtown San Francisco, office construction moved toward BART stations, due to space/access constraints.	Analysis confirms 1978 findings. (Landis, 4-11)
Housing Construction	Little housing construction overall; BART may have increased housing demand in exurban areas.	Substantial addition of multi-family housing within a 1/4-mile of BART stations, particularly on the Concord and Fremont lines.
<u>Retail Sales</u>		
Shopping Patterns	BART may have encouraged more shoppers to shop in center city areas	Analysis not updated.
Retail Sales	No perceptible correlation between proximity to BART and increased retail sales.	Analysis not updated.
<u>Property Prices & Other Real Estate Market Effects</u>		
Residential Property	No perceptible correlation between proximity to BART and higher rent/price; areawide prices and rents increased substantially around Glen Park & Walnut Creek.	Statistical analysis not updated, but discussion notes anecdotal evidence of rent premiums near BART stations, at Pleasant Hill.
Commercial Property	Rent increases near BART: - downtown SF, 200 ft from station - downtown Oakland, for Class A space - Walnut Creek - Mission District	No significant rent premiums closer to BART stations in downtown San Francisco for office buildings with more than 15,000 square feet. Does not distinguish classes of office space. (Landis, 23)
Speculation	Little	Analysis not updated

Sources: U.S. Department of Transportation and U.S. Department of Housing and Urban Development, *Land Use and Urban Development Impacts of BART (August 1978)*, i-xi; Roberto Cervero et al., *BART @ 20 Series: Land Use and Development Impacts (September 1995)*, 75, 138, 157, 178-9; John Landis et al., *BART @ 20 Series: BART Access and Office Building Performance (September 1995)*, 4-11, 23.



Where BART stations are adjacent to outlying shopping centers, survey research did not show a correlation between proximity to transit and increased retail sales.

DEVELOPMENT TRENDS AT URBAN STATIONS

Comparison of development at five different categories of stations reveals certain trends. The five station categories were developed by Roberto Cervero for the BART @ 20 Series, and stations were categorized according to their location and the characteristics of the surrounding area.

- *Downtown San Francisco and Downtown Oakland.* Includes all the downtown stations, all of which serve an urban core area. With the exception of Lake Merritt station in Oakland, no station has parking.
- *Urban District.* Includes stations that serve urban areas that are outside the core. None of these stations have parking.
- *Suburban Centers.* Includes suburban office nodes centered around BART stations.
- *Low-Density Areas.* Includes stations outside the dense urban centers or suburban office nodes.

In comparing these station types, Cervero noted that the epicenters of development were

suburban centers, low-density areas, and Downtown San Francisco - the most dense agglomeration of offices in the region. Downtown Oakland had only 4 million square feet of office space by 1993, one-seventh of the space in Downtown San Francisco. Suburban centers along the Concord line had more than 6 million square feet of office space. Non-core urban areas with depressed real estate markets and less focused planning policies experienced far less development. These stations include Berkeley and the Mission District stations.

Table 8-5.
CONSTRUCTION IMPACTS ON URBAN STATIONS WITH NO PARKING: 1965-93
(square feet of building area)

	<i>Office</i>	<i>Commercial</i>	<i>Multi-Family Housing</i>
Downtown SFI	28,000,000	7,300,000	630,000
16th Street Mission	28,000	40,000	342,000
24th Street Mission	51,000	59,000	626,000
Downtown Oakland ²	4,000,000	88,000	410,000
Berkeley	286,000	35,000	96,000

1. Includes Embarcadero, Montgomery, Powell, and Civic Center Stations.

2. Includes 12th Street, 19th Street, Lake Merritt Stations.

Source: Roberto Cervero et al., BART @ 20 Series: Land Use and Development Impacts (September 1995).

Note: Lake Merritt Station has 205 parking spaces, but the its limited parking and urban environment do not draw as many commuters as other stations.

Table 8-6.
PERCENT CHANGE IN BUILDING AREA FOR FIVE STATION TYPES

Year	<i>SF Residential</i>		<i>MF Residential</i>		<i>Non-residential</i>	
	73-79	79-93	73-93	79-93	73-93	79-93
Downtown San Francisco ¹	0.0	0	0.0	19.9	9.4	38.9
Downtown Oakland ²	10.2	0	65.3	6.9	6.8	36.1
Urban Districts ³	0.6	2.6	3.6	9.4	2.9	9.2
Suburban Centers ⁴	2.5	9.3	10.7	36.3	22.9	236.7
Low-Density Areas ⁵	4.3	3.2	6.8	25.0	8.9	11.3

¹ Includes Embarcadero, Montgomery, Powell, and Civic Center stations.

² Includes 12th Street, 19th Street, and Lake Merritt stations.

³ Includes Berkeley, 16th Street Mission, and 24th Street Mission stations.

⁴ Includes Walnut Creek, Pleasant Hill, and Concord stations.

⁵ Includes Fruitvale, San Leandro, Hayward, Union City, Fremont, Ashby, North Berkeley, El Cerrito del Norte, and Daly City stations.

Source: Roberto Cervero et al., BART @ 20 Series: Land Use and Development Impacts (September 1995), 47.

FACTORS INFLUENCING STATION AREA DEVELOPMENT

The initial BART impact study of 1979 concluded that the BART system did not influence the distribution of development to the extent that was originally anticipated. Where BART did manage to attract development, it was made possible by regional economic growth and by the land use and development policies of local jurisdictions.³³ The BART @ 20 study reached essentially the same conclusion.³⁴

ECONOMIC GROWTH IN THE SAN FRANCISCO BAY AREA

Without strong economic growth in the San Francisco region, little development at BART stations would have occurred. Overall, the real estate market has been strong, with record-setting commercial real estate and residential prices and extremely low vacancy rates. Job

Table 8-7.

POPULATION AND EMPLOYMENT IN COUNTIES SERVED BY BART, 1980-PROJECTED 2000

Counties	1980	1990	Projected 2000	Annual Change, 1980-2000
Alameda				
Population	1,105,379	1,276,702	1,453,000	1.38%
Jobs	513,797	620,980	651,500	1.19%
Contra Costa				
Population	656,331	803,732	962,900	1.93%
Jobs	201,237	303,830	335,800	2.59%
San Francisco				
Population	678,974	723,959	780,400	0.70%
Jobs	552,200	566,640	567,920	0.14%
San Mateo				
Population	587,329	649,623	727,300	1.07%
Jobs	259,795	311,600	355,660	1.58%

Source: Association of Bay Area Governments, Projections '96.

³³ United States Department of Transportation and the United States Department of Housing and Urban Development, *BART Impact Program: Land Use and Urban Development Project: Study of Development Patterns*. (Washington: U.S. DOT, June 1978), 78-9.

³⁴ Robert Cervero et al. *BART @ 20 Series: Land Use and Development Impacts*. (Berkeley: University of California Transportation Center, May 1996), 178-9.

growth in Silicon Valley and throughout the region has fueled the increased demand for new construction and accelerated property values throughout Santa Clara, San Mateo, San Francisco, Alameda and Contra Costa Counties.

The large increases in population and employment have fueled the need for additional housing and commercial space, and some local jurisdictions have managed to channel growth toward the BART station areas. Projected increases in people and jobs are continuing to make development around BART stations feasible.

Despite strong regional growth, the City of Oakland has not shared in the prosperity to the degree that San Francisco and other cities have. The computer, multi-media, and financial sectors that have spurred much of the recent growth in the region have largely bypassed Oakland, and unemployment there tends to be higher than in surrounding areas. As a result, the local real estate market in the Fruitvale BART station area is not as strong as in other areas. However, there is a general perception that market conditions in the Fruitvale neighborhood are stable or improved, as evidenced by decreases in vacancy rates since the end of the 1992-96 recession.

Table 8-8.
POPULATION AND EMPLOYMENT IN OAKLAND VS. ALAMEDA COUNTY, 1980-PROJECTED 2000

	1980	1990	Projected 2000	Annual Change, 1980-2000
<u>Oakland</u>				
Population	339,337	372,242	395,000	0.76%
Jobs	182,940	170,200	174,010	-0.25%
<u>Alameda County</u>				
Population	1,105,379	1,276,702	1,421,000	1.26%
Jobs	513,797	620,980	667,400	1.32%

Source: Association of Bay Area Governments, Projections '96 and Projections '98

SUPPORTIVE LOCAL LAND USE AND DEVELOPMENT POLICIES

Land use and development policies for station areas vary between the downtown stations and suburban stations. Development around stations in downtown San Francisco was facilitated by General Plan policies and zoning regulations. In San Francisco, rezoning was an adequate measure to encourage development, because market forces for office development were so strong that developers were drawn to areas with greater allowable FARs and building heights.

In contrast, specific plans were developed for all three suburban stations, and plans were implemented either through the actions of a Redevelopment Agency, the initiatives of a community development organization, or through joint development partnerships. On infill sites, such as are found near the Hayward and Fruitvale BART stations, specific plans have helped to integrate existing and new development, and they have helped to integrate planning for

station area into city-wide planning efforts. Zoning has also been used for the suburban stations, but only as one of the implementation tools in the context of a larger policy and planning framework.

Transit-oriented development at the Pleasant Hill BART station has not occurred as envisioned, even though a comprehensive specific plan was developed for the site, largely because of changing market conditions and lack of flexibility in the land use concepts in the plan. . Even though the station area plan was completed in 1982, much land has remained vacant. Recently, the concept for an entertainment center evolved out of developer proposals in response to a BART initiated request for joint development of its surface parking lot in 1995. This new plan sought to respond to the need for retail and entertainment uses in the local market, but it was not well integrated with other planning efforts in the nearby jurisdictions.

Table 8-9.
SUPPORTIVE LAND USE AND DEVELOPMENT POLICIES OF LOCAL JURISDICTIONS

<i>Station</i>	<i>Supportive Policies</i>
Pleasant Hill	Specific Plan states general land use policies and specific implementation measures, including allowable land uses by parcel and standards for urban design, parking, and site development.
Hayward	Specific Plan establishes general land use policies and preliminary site plans for development of housing, commercial buildings, streets, and public spaces.
Fruitvale	City of Oakland establishes S-15 zoning to allow for mixed uses and higher densities. Specific Plan establishes site plans for housing, buildings, streets, and public spaces.
Montgomery	City rezones downtown area to focus high-density office development around the downtown BART stations.

Source: Dyett & Bhatia

Oakland TOD Planning and Zoning

The Policy Framework of the recently adopted Land Use and Transportation Element of the Oakland General Plan identifies Transit Oriented Development (TOD), the convergence of land use planning with transit investments, as a primary goal for the future development of Oakland. The Fruitvale BART station has been designated as a TOD District in the General Plan. TODs should be pedestrian oriented, encourage night and day time use, contain a mix of land uses, establish connections between transit and commercial core areas, and be compatible with the character of surrounding neighborhoods.³⁵

The new S-15 zoning, TOD District, was created specifically for the Fruitvale BART Station area to encourage balanced, mixed-use development near the station. Except for a section of

³⁵ Envision Oakland: Land Use and Transportation Element of the Oakland General Plan, City of Oakland General Plan, 1998

International Boulevard, which is zoned for C-28, Commercial Shopping District, the entire Transit Village project area is zoned S-15. The zoning district permits residential, commercial, and civic (such as childcare, education and health care) activities and allows the highest residential densities in the city.

The Land Use designation for the station area is Neighborhood Commercial Mixed Use, which “is intended to identify, create, maintain and enhance mixed use neighborhood commercial centers. These centers are typically characterized by smaller-scale pedestrian-oriented, continuous street frontages with a mix of retail, housing, office, active open space, eating and drinking places, personal and business services, and smaller scale educational, cultural, or entertainment uses.”³⁶ The floor area ratio in this district can reach a maximum of 4.0 to 1, with a residential density maximum of 125 units per acre.

The Coliseum Area Redevelopment Plan, which encompasses the Fruitvale BART Station area, is also consistent with the Transit Village project. The Redevelopment Plan identifies such improvements as enhanced connections between the BART Station and retail shops on International Boulevard, and improving the image of the Fruitvale district. Fruitvale also lies within an Empowerment Zone that can provide various public incentives to attract businesses.

BART JOINT DEVELOPMENT

Another major contributor to station area development outside of the urban core of San Francisco and Oakland is the BART Department of Real Estate, which is charged with the responsibility of utilizing property surrounding stations in a transit-conducive and financially sound manner.

BART has worked cooperatively on development projects at the Hayward, Pleasant Hill, and Fruitvale BART stations. However, BART’s role has varied from site to site, with respect to local jurisdictions and Redevelopment Agencies.

- At both Fruitvale and Hayward, planning efforts were spearheaded by local organizations, and BART cooperated and supported their efforts. At Fruitvale, the Spanish Speaking Unity Council played the key role in establishing a plan for the station area and gathering the necessary funding. At Hayward, the City and Redevelopment Agency worked with BART to swap parcels of land and create transit-supportive development. The direct involvement of local communities and jurisdictions have made joint development responsive to the needs of local communities.
- At Pleasant Hill, BART was involved in planning efforts from the very beginning, and BART issued a Request for Proposals for a development plan in the early 1990s. BART would work with a private partner in a joint development project. However, because Pleasant Hill is located in the unincorporated area of Contra Costa County, local jurisdictions and communities had a much less direct involvement in the development

³⁶ Envision Oakland: Land Use and Transportation Element of the Oakland General Plan, City of Oakland General Plan, 1998

of the plan, and as a result, it has met with more community resistance.

BART Parking Lots: Opportunity and Constraint

Surface parking lots around suburban BART stations have provided opportunities and constraints for development. The surface parking lots have effectively served as a form of land banking that has provided available sites for development. Areas adjacent to the station have been used for parking as long as market and regulatory forces have not called for development. As market and regulatory environments have become more conducive, however, the parking lots have provided large areas of cleared land right next to the station that are available for development.

Nevertheless, the BART District maintains the policy that any joint development on BART property must replace parking at ratio of 1:1. This essentially forces a developer to construct a multi-story parking garage to accommodate BART patrons, increasing the cost of development beyond feasibility in most cases. At Fruitvale, the City of Oakland is funding construction of the Phase I parking garage that will replace a portion of the BART surface parking lot. The \$11 million needed for the second garage, which will be required in a subsequent phase of the project, has not yet been identified.

PUBLIC FUNDING

Redevelopment Agencies at both Pleasant Hill and Hayward have been essential in leveraging the public funds necessary to make station-area development possible. At Pleasant Hill, the Contra Costa Redevelopment Agency has invested \$30 million in infrastructure improvements, including drainage and water systems, undergrounding of utilities, and road widenings. The Redevelopment Agency also assembled the land necessary for large-scale office development.

In Hayward, the Redevelopment Agency mainly focused on land assembly, investing less in infrastructure improvements. This is mainly because the station area of the Hayward BART stations was already built out, and some infrastructure already existed prior to development. Some infrastructure improvements have also been conducted in conjunction with specific phases of the development projects. This approach has reduced upfront infrastructure investments for the Redevelopment Agency.

IMPLEMENTATION TOOLS

Transit-oriented development at BART stations has used the full range of available implementation tools, as shown in Table 8-10. The combination of rezoning with redevelopment-led land assembly has created the right conditions for station-area development. Public funding for community facility and infrastructure improvements have also helped generate developer interest and community support.

Table 8-10.

IMPLEMENTATION TOOLS FOR TOD AT BART STATIONS

Table 8-10.				
IMPLEMENTATION TOOLS FOR TOD AT BART STATIONS				
	Montgomery	Hayward	Fruitvale	Pleasant Hill
Station Area Market Development Strategies	Office boom was expected.	Outlined phasing for multi-family housing.	Market study determined sup-portable space, phasing, neces-sary public in-vestments.	Determined sup-portable office and res. space.
Non-rail Infrastructure Investments	Streetscape im-provements.	Pedestrian amenities; inter-modal connec-tions.	Pedestrian plaza linking BART with 14th St.; facade improve-ments.	Road, intersec-tion improve-ments.
Shared Parking/ Parking Management	No station-area parking; private parking is man-aged privately.	Replacement parking require-ment avoided by land swapping.	S-15 zoning has lower parking requirements; BART requires 1:1 parking re-placement	BART requires 1:1 parking space replacement.
Expedited Permits and Reviews	No.	No.	No; shorter en-vironmental re-view.	No.
Rezoning	Adjustments to FAR and Building Heights.	No.	S-15 Transit Vil-lage zone allows max. residential density (125 du/acre).	Mixed use zon-ing; allowable density reduced by 1/3 in re-sponse to com-munity concerns.
Land Assembly	Redevelopment Agency assem-bled small parcels for nearby civic buildings.	Redevelopment Agency swapped land with BART, purchased other property.	Assembled by non-profit with grant funds; BART a 99-year ground lease.	Redevelopment Agency pur-chased and as-sembled land.
Direct Public Invest-ments in Projects	Tax increment financing for nearby cultural, civic uses.	Tax-increment financing for city/county of-fices; road im-provements.	Empowerment Zone funding for community im-provements; non-profit grants	Potential confer-ence center or museum uses, with some public funding.
Local Transit Service Design	Designed as in-termodal station with under-ground LRT.	Little change in local bus service.	Redesign of bus bays for better access and proj-ect compatibility.	Little change in local bus service.

SUMMARY ASSESSMENT; IMPLICATIONS FOR SEATTLE

The BART stations in this case study offer the City of Seattle several key lessons that can inform the planning process for transit-oriented development:

- **Zoning as a Single Implementation Tool.** In areas with spatial constraints on development and a very strong real estate market, such as a downtown core, zoning districts with high FAR can provide adequate incentives for transit-oriented development. In San Francisco, a confined downtown area, a strong real estate office market, and higher FARs all drew development into the Montgomery station area. Without all these conditions, however, are specific plans, direct public investments, or other actions may be necessary.
- **Integration of Specific Plans and Other Planning Efforts.** Specific plans at Hayward and Fruitvale have integrated new and old development, and the plans themselves have become integrated into other planning efforts. The Hayward station plan was part of the City's overall effort to revitalize downtown. At Fruitvale, the station plan was integrated with the provision of vital housing and community services to local residents. At Pleasant Hill, the proposed entertainment complex did not mesh with the plans of other jurisdictions for similar development.
- **Land Assembly.** At four of the stations in this case study, development was facilitated by land assembly. Cities or community organizations can consolidate land for development in order to promote higher or more compact uses. The establishment of surface parking lots around suburban stations served to assemble and bank land for future development.
- **Phased Infrastructure Improvements.** At Hayward, incremental infrastructure investments were made as pieces of the development project have been implemented. This approach has reduced costly up-front infrastructure investment on the part of the local jurisdiction.
- **Parking Replacement May Impede Joint Development.** BART has a long-standing joint-development policy that parking cannot be lost to development. Any spaces taken out of use for construction must be replaced on a one-to-one basis, in lots that are contiguous to the station. The cost of replacement parking can severely increase development costs and deter investment. Requirements for replacement parking can either be reduced, or public agencies can help defray the costs.
- **Locally Lead Joint Development.** BART's more successful joint development projects are those that have been spearheaded by local jurisdictions or community organizations. BART's attempts to work directly with private developers to build whatever type of project has typically ignited community opposition. BART's initial plans to increase ridership at Fruitvale through construction of additional commuter parking conflicted with the community vision of station-based community revitalization. After the original opposition, BART worked cooperatively with the community, and its Real Estate Development arm has been quite active in the planning process. The BART District is working closely with local groups to develop neighborhood-oriented station-area plans at Coliseum station in Oakland and 16th Street Mission station in San Francisco, among others.

- Community Organization and Leadership. Fruitvale is a good example of the difference that a committed community organization can make. The Spanish Speaking Unity Council did not have any previous experience with physical planning, and had historically concentrated on providing community services. The staff has been diligent about pushing the project through the many layers of bureaucracy, and the fundraising efforts have been extremely successful. It helped that the SSUC director was a former HUD official who knew what sources to tap.

Also at the Fruitvale station, the SSUC made notable efforts to reach out to a number of affected community residents, including low- to moderate-income Hispanic residents, Asian immigrants, and local merchants. With residents, the SSUC overcame community fears of both a concentration of low-income housing and of eventual gentrification. Most local merchants now support the plan, after their initial apprehension that an influx of new businesses would draw away retail customers. Similar outreach was done for the 16th/Mission station, although a weak real estate market has continued to stymie private development.

- Funding from Federal, Regional, and Local Governments. Both the federal FTA and regional Metropolitan Transportation Commission (MTC) have hailed the ambitious Fruitvale Transit Village plans as a community-based transit-supportive project, and offered financial and political support. The Fruitvale Transit Village is prominently featured in the FTA's Livable Communities Initiative literature, and the MTC discusses the project in articles advertising their support for transit-oriented development. The local player, the City of Oakland, has also helped pay for aspects of the project, include the BART parking structure in Phase 1. The project shows that support may come from a variety of levels and does not need to be exclusively local to be successful.

REFERENCES; ADDITIONAL SOURCES OF INFORMATION

Cervero, Robert and Michael Bernick. *Transit Villages in the 21st Century*. San Francisco: McGraw-Hill, 1997.

Cervero, Robert; Carlos Castellanos; Wicaksono Sarosa; and Kenneth Rich. *Land Use and Development Impacts in BART @ 20 Series*. Berkeley: University of California Transportation Center, 1995.

City of El Cerrito Redevelopment Agency. *El Cerrito Plaza: South Gateway Development Area: Concept Plan Strategies*, prepared by Racestudio. June 1996.

City of Hayward Redevelopment Agency. *Downtown Hayward Design Plan*. July 1992.

City of Hayward Redevelopment Agency. *The Core Area Plan: A Component of the Downtown Hayward Design Plan*, prepared by Dan Soloman, Inc. July 1992.

City of Oakland General Plan. *Envision Oakland: Land Use and Transportation Element of the Oakland General Plan*. 1998.

City of Richmond Redevelopment Agency and the Bay Area Rapid Transit District. Development Feasibility Study for the Richmond BART Site, prepared by Bay Area Economics; Fox Design Group; and Pittman & Hames. July 1996.

Contra Costa County. Pleasant Hill BART Station Area Specific Plan. June 1983.

Contra Costa County. Proposed Amended Pleasant Hill BART Station Area Specific Plan. June 1997.

Environmental Science Associates. Fruitvale Transit Village Initial Study/Environmental Assessment. May 1998.

Huang, William S. Transit and Regional Economic Growth: A Review of the Literature in BART @ 20 Series. Berkeley: University of California Transportation Center, 1995.

Keyser Marston Associates. Phase II Report: Feasibility Analysis Framework, Fruitvale Transit Village. January 1995.

Landis, John and David Loutzenheiser. BART Access and Office Building Performance in BART @ 20 Series. Berkeley: University of California Transportation Center, 1995.

Metropolitan Transportation Commission. Land Use and Urban Development Impacts of BART in BART Impact Program. Prepared by John Blayney Associates and David M. Dornbusch & Co. Oakland: Metropolitan Transportation Commission, 1978.

Spanish Speaking Unity Council. Request for Proposals(RFP) to Develop an Overall Site Design for the Fruitvale BART Transit Village Using Community Participation Planning Process. De-cember 1994.

Spanish Speaking Unity Council; City of Oakland; and the Bay Area Rapid Transit District. Fruitvale BART Transit Village: Development Team Request for Proposals. January 1997.

Transportation Research Board, National Research Council. Transit Cooperative Research Program Report 16: Transit and Urban Form, v. 1&2. Prepared by Parsons Brinckerhoff Quade & Douglas. Washington D.C.: National Academy Press, 1996.

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