introduction







Picture this: mothers struggling to push strollers through gravel and garbage-strewn paths; plastic flower memorials where pedestrians have been hit crossing intersections; day laborers on bicycles navigating traffic lanes filled with container trucks; children walking to school in the street because there is no sidewalk; abandoned lots filled with car parts; and whole neighborhoods with no safe walking or biking connections to schools, parks, mass transit, or parks. These are frighteningly common scenes from daily life in the flatland communities near the elevated BART tracks running between downtown Oakland and Hayward.

When BART was conceived it was heralded as one of the greatest achievements in public transportation history. Promotional videos from the 1960s depict beautiful elevated tracks with landscaped grounds beneath the structure, allowing for free and pleasant movement from one side of the tracks to the other. The BART/Trail map from 1974 *(left)* shows plans for a bike trail along the same corridor as the one proposed in this plan. BART designs were intended to minimize the impact of these imposing tracks in the heart of our urban environment. Although these promises came true in some Bay Area communities, the real story in parts of the East Bay is far more bleak.

Today roughly twelve miles of elevated tracks run from 18th Avenue in Oakland south to Hayward, cutting through urban areas. Beneath these aerial tracks are cement pillars in muddy, rocky, and uneven ground, with fences sporadically blocking access. People try to bike underneath the tracks, creating ad hoc paths, but they can only go for a few blocks before a barrier rises up. Instead of the elevated tracks allowing for free movement between the two sides as promised, they have created a divide and a dead zone in the heart of some of our densest urban areas. (*right*)





Conditions on the Ohlone Greenway

But there is an alternative. In Berkeley, Albany, and El Cerrito, the promise of usable public space under the BART tracks has come true: the Ohlone Greenway (*left*) provides a multi-use path and a crucial link between neighborhoods and transit for many East Bay residents. It is a landscaped bike and pedestrian path that runs underneath the BART right-of-way, providing amenities and lush greenery.

The Ohlone Greenway was Urban Ecology's original inspiration and model for the East Bay Greenway. Although the cities, conditions, and resources of the two areas are very different, we believe the communities and residents along the East

Bay Greenway corridor deserve access to the same types of paths and public spaces as the citizens of Berkeley, Albany, and El Cerrito. By developing strategic design and implementation options based on community and agency input, this vision can become reality.

the genesis of the east bay greenway





Existing conditions along the East Bay Greenway corridor



The East Bay Greenway will transform this section of the BART corridor into an attractive bike and pedestrian path with vegetation, benches, play areas, lighting, landscaping, art work, and other services and amenities. The plan will convert the BART right-of-way underneath the elevated tracks into a public amenity that positively influences the neighborhoods it now cuts through and divides. The centerpiece of the Greenway will be a bike and pedestrian path running the length of the elevated BART tracks. The corridor will be transformed into a space that connects East Bay area residents in healthier, safer, more accessible, more vibrant, and stronger communities.



Urban Ecology starts each project getting to know the communities we work with: What are their stories and history? What are their concerns and needs? What is most important to them? And what are the major issues they are grappling with today? In this introduction, we describe what we learned about the communities along the East Bay Greenway, their history, their current concerns, and the planning context they live within.

The development of a city, any city, is bound up directly with the ways in which people get from place to place in their daily activities.

- Beth Bagwell, Oakland: The Story of a City

The Greenway corridor follows the BART Fremont line, built in 1972. The BART Fremont line runs adjacent to the Union Pacific Railroad (formerly the Western Pacific) constructed in 1910. These transportation routes had a large influence on the development of the neighborhoods along the corridor. But prior to the rail lines, waterways defined the region.

The San Francisco Bay was formed 10,000 years ago when the ice age ended and water filled the valley of the Coastal Range. Fresh water from creeks in the Oakland hills and salt water from the San Francisco Bay came together in a large salt and fresh water marshland that covered much of the existing Greenway corridor.

The Jalquin, Yrgin and Tuibun Indians lived along the Fremont line for over a thousand years. Ohlone or Costanoan Indians lived in the Pacific Prairie at the base of the Coastal Range. The Ohlone's livelihoods depended on the Bay and creeks for food and transportation.

During the Ranchero Era (mid-19th century), the creeks became boundaries for land grants given by the Spanish and Mexican government. San Leandro Creek and San Lorenzo Creek defined the edges of three large land grants – Rancho San Antonio, Rancho San Leandro, and Rancho San Lorenzo.

During this period the area was sparsely populated, but the Gold Rush, starting in 1848, brought in people from all over the United States. Very few got rich from the Gold Rush, but many stayed in the area, turning to agriculture instead. Cherry, apricot, and apple orchards replaced the former ranches. Old farm houses with wooden water towers in the backyard, also called tank houses, still exist along the corridor.

After the Gold Rush and statehood, towns in the corridor were laid out, named, and incorporated; stores, factories, schools, hotels, town squares, and post offices were built. In 1869, the transcontinental railroad (Central Pacific Railroad) was built through this area. Industry related to agriculture, like canneries and food processing plants, grew up adjacent to the rail lines. From 1890 to 1940 the East Bay led the nation in canning output. During this time period, much of the San Francisco Bay was filled in to accommodate growth and industry. Although the Greenway corridor lies several miles inland from the current shoreline, it crosses the original bay shoreline.

World War II was described as a second Gold Rush for the Bay Area. Oakland and the East Bay were well positioned to be instrumental in wartime manufacturing because of the existing factories and the auto and truck manufacturing plants. The Nimitz Freeway, now called I-880, which runs south through the corridor, was built in 1952. Planning the Bay Area Rapid Transit (BART) system started in this era as a way to connect suburban areas to the urban centers.



genesis history current context planning process

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MAP

CONTRA-CO

5

early settlers and first towns pre 1800 to 1855

About 500 C.E.

Evidence suggests that around this time the Ohlone (Coastanoan) Indians arrive in the San Francisco Bay Area.



1772 Spanish explorers are the first Europeans to reach San Francisco's East Bay.

1797

Mission San Jose is founded, which secures Spanish control over the entire area the Greenway passes through. El Camino Real is the road that connects Mission San Jose to Missions north and south.



1000

1820 The King of Spain awards retired soldier Luis Maria Peralta a 45,000 acre land grant that includes most of present day Alameda County.

1821

Peralta builds his hacienda at Paxton and 34th Avenue in what is now Oakland. It is considered the first non-Native American dwelling in Oakland.



1821 Mexico gains independence from Spain. The East Bay becomes a part of Mexico.

1842

The Mexican government grants Rancho San Leandro, the land between San Leandro and San Lorenzo Creeks, to Jose Joaquin Estudillo.

1843

The Mexican government grants retired soldier Guillermo Castro 27,000 acres of flatlands, hills, and canyons named El Rancho San Lorenzo, an area now known as Hayward and Castro Valley.

1849 California is annexed for the Union. Two years later it becomes the 31st state in the United States of America.

1849

Beginning of the Gold Rush. Agricultural production flourishes as unsuccessful prospectors settle in the East

Bay.



1852

Oakland is incorporated by the state legislature.

1852

Castro lays out the town of San Lorenzo

1853

The County of Alameda is created and divided into townships. The township containing Hayward, Castro Valley, San Lorenzo, Ashland, and Cherryland is named Eden.



1856 San Leandro becomes the County Seat of Alameda.

industry arrives 1855-1900



1865

Alameda Stockton Railroad opens from Alameda to Davis Street. Many factories are built along the railroad line.

1867

Dr. Samuel Merritt donates 155 acres of dammed tidal water from the headwaters of the Indian Slough to Oakland, which forms Lake Merritt. In 1870 Lake Merritt becomes the first wildfowl refuge in North America.



1868 An earthquake destroys the San Leandro courthouse, prompting relocation of the county seat to Oakland.

1869

The Central Pacific Railroad, the first transcontinental railroad (which runs parallel to the Greenway corridor) is constructed.



1873

Horse car lines are extended from downtown Oakland through the communities of Fruitvale, Melrose, and Elmhurst.



1874

The Federal government dredges a channel, separating Alameda from Oakland. Oakland is opened as a deep water port.

1890s

Hunt's cannery opens in Hayward.



1900-1950

1900 - 1910 Oakland's population more than doubles in ten years, from 66,960 to 150,000.

1906

Earthquake and fire devastates much of San Francisco. 100,000 refugees settle in the East Bay.



1909

Oakland annexes Claremont, Fruitvale, Melrose, Fitchburg, and Elmhurst, increasing the area of Oakland from 22.9 square miles to 60.25 square miles.

1910 The Western Pacific Railroad (currently the Union Pacific Railroad) is built.

1927

Port of Oakland is established, including opening of 700-acre Oakland Municipal Airport.



1928 Port of Oakland becomes an official port of entry to the United States, leading to an expansion of foriegn trade.





1941

Port of Oakland is turned over to the Armed Forces for the program. To create Oakland Army and Naval Supply Bases, large-scale filling of the estuary begins. Thousands arrive from all over the country to work in factories. The population increase triggers a massive boom in housing.



1943 The Pacific Coast leads the nation in ship building and Oakland produces 35 percent of the ship output.



1950 to present

1952

Nimitz Freeway (I-880) is built between the bay and the Greenway corridor.

1957 Cypress Freeway opens in Oakland.



1960 Construction begins on new jet runway at the Oakland Airport.

1962 First container ship arrives at Port of Oakland.

1963

Rumford Fair Housing Act is passed by California State Legislature. The act was meant to stop housing discrimination.



1965 McAteer-Petris "Save the Bay" Bay.

1972 Construction of the original BART system concludes.

1974 BART Transbay tube opens for operation.

1964 Construction of BART begins.

1989 Loma Prieta earthquake hits the Bay Area.





1997 Renovation of the Oakland-Alameda County Arena.



2004 Fruitvale Village opens at the Fruitvale BART Station.

Act essentially stops infill of the

current context

Why do we need the East Bay Greenway?

- 1. It addresses environmental and social justice issues.
- 2. It improves health through access to recreation and open space.
- 3. It provides safe, sustainable and economic transportation alternatives.
- 4. It increases community pride and public safety.
- 5. It establishes a sense of place and restores the natural environment.

Communities along the Greenway corridor are still grappling with the legacy of industrial development that spurred their growth. Looking at the demographics of the neighborhoods along the Greenway gives us a picture of some of the issues the current residents have to face every day. More positively, these statistics also provide some of the strongest arguments for the importance of a Greenway.

Poverty



Source: Alameda County Public Health Department, CAPE unit with data from Census 2000

1. Environmental and Social Justice

current conditions

Although the communities along the Greenway differ greatly, they are predominantly non-white, low income, and with high percentages of youth and seniors. These groups have a history of being overlooked and neglected, and the current conditions of their neighborhoods reflect this.

- Although Alameda County's population is 73.9% white, the communities along the East Bay Greenway corridor are predominantly Asian, African American, and Hispanic (*Figure 1*).
- Alameda County has 11.2% of its population living in poverty. The highest percentages of people living in poverty are in Oakland with 15% to 20%, followed by Hayward with 10% to 15%, and San Leandro with 7% to 10%. In 2006, Oakland had the lowest median household income in the region (under \$50,000), followed by Hayward and San Leandro (both with \$50,000 to \$60,000).
- The 2000 Census showed that throughout all Alameda County, 17% of the children under 18 were living in poverty. The map on the previous page shows how poverty is concentrated along the Greenway corridor.
- According to the 2000 Census, children under 18 accounted for 25.1% of population in Alameda County and seniors over age 65 accounted for 10.5%. Youth population is particularly dense adjacent to the Greenway corridor in Oakland, as seen in *Figure 2*.

benefits of a greenway

The East Bay Greenway a step in addressing some of these inequalities for the residents of the Oakland – Hayward corridor.

- There is a strong correlation between socio-economic status and access to parks and recreation areas. From the equity and environmental justice standpoint, it is critical to provide more park access to the underserved communities living in this area. *Figure 3* shows how large areas of open space are far from the Greenway corridor.
- Low-income people are more likely to use alternative modes of transportation. According to the Urban Land Institute, Latinos are three times more likely to use transit than non-Latinos, and African Americans are six times more likely to use transit than their white counterparts. Yet the Greenway corridor in many places lacks the most basic pedestrian facilities (sidewalks) to connect to public transit.
- Recreation areas are needed more where there is the highest percentage of youth and elderly because both of these groups have limited mobility.

Population Diversity



Age RangeImage: Age Range<

Open Space and Parks





> Parks are not distributed evenly in Alameda County. The communities near the BART tracks have far fewer parks than Oakland's average or National Standards.

Community	Acres of Parkland (per 1000 people)		
San Antonio	0.8		
Fruitvale	0.6		
Central East Oakland	0.9		
Elmhurst	2.1		
San Leandro	1.3		
Ashland	0.6		
Cherryland	0.9		
Hayward	2.0		
Oakland	5.4		
National Recreational and Park Association Standard	>6.0		

2. Health, Recreation, and Open Space

current conditions

Communities along the Greenway are grappling with health issues of all types, from asthma to coronary heart disease.

- Obesity is a growing public health concern in Alameda County with ٠ about 18% of adults and 30.5% of children being overweight.
- The California Department of Education reported on the 2006 Fitness Test in Alameda County public schools that only 29.8% of the students in grade five, 32.9% in grade seven, and 30.2% in grade nine achieved healthy levels of fitness standards.
- There is a high incidence of diabetes and asthma in the neighborhoods along the study area (see figures below).
- The neighborhoods through which the proposed East Bay Greenway runs lack sufficient access to trails, parks, and recreational areas. While the National Recreation and Park Association recommends having more than 6 acres of parks per 1,000 people and the City of Oakland recommends at least 4 acres per 1,000 residents, the areas around the Greenway have between 0.6 (Fruitvale) and 2.1 (unincorporated Alameda County) acres per 1,000 people (Heller 2007, 12).

The Greenway will provide access to recreational opportunities in

benefits of a greenway

communities severely lacking in open space. Access to trails and recreational amenities has a direct correlation to the health of residents.

- 2007).
- 40%.



Childhood Asthma (<5yrs) Hospitalization Alameda County, 2001-2003

Diabetes Hospitalization Alameda County, 2001-2003



• According to the Centers for Disease Control (CDC), people who live within walking distance of recreation areas are more likely to exercise than people who live far away from them; in a recent study they concluded that increasing access to parks resulted in a 25.6% increase in the number of people who achieved the recommended levels of physical activity.

Regular moderate physical activity every day helps prevent obesity, thus reducing the risk of numerous illnesses, such as coronary artery disease type 2 diabetes, gallbladder disease, some cancers (endometrial, breast, and colon), stroke, osteoarthritis, and respiratory problems (CDC

• According to a study done by Harvard University, walking 30 minutes a day can reduce the incidence of chronic health conditions by 30% to

Moreover, exercising also plays a vital role in increasing lifespan and improving mental health and the quality of life.



Source for above maps: Alameda County Public Health Department, CAPE unit with data from Census 2000

3. Safe, Sustainable, and Affordable Transportation Alternatives

current conditions

The BART stations along the corridor present an opportunity to provide affordable, safe, and sustainable transportation to those who need it most.

- People in Alameda County already use the space under the BART tracks for walking and biking; but they do so in unsafe and unattractive conditions where there are often no sidewalks or crosswalks (*below*).
- Traffic accident hotspots are detailed in the Greenway's Health Impact Assessment (HIA) *(far right)*. Within a half-mile buffer of the proposed Greenway, there were 34 pedestrians killed, 531 pedestrians injured, 5 bicyclists killed, and 279 bicyclists injured between 1996 and 2006.
- According to the 2006 Census, 9% of Alameda County households reported not having a car, while about 33% percent reported having only one car.
- According to the 2000 Census, in Alameda County 1.2% of residents bike and 3.2% walk to work.
- Alameda County's population grew by a 0.7% from 2005 to 2006, adding 10,075 new residents in a one-year period. Moreover, the Bay Area is expected to experience the highest population growth in Alameda County, and the population is projected to increase to by 118,100 residents and 41,350 households by 2030.
- Transit-oriented developments (increasing residential and commercial development around transit centers in order to increase pedestrian access to transportation and services) are being planned and implemented at all the BART stations on the Greenway corridor (*right*). Successful transit-oriented developments depend on good pedestrian and bicycle access as well as adequate open space for recreation.

benefits of a greenway

The Greenway is an excellent way to create more efficient mobility and manage the transportation demands of future population growth. The Greenway will provide a safe transportation alternative to cars. And it will make getting places easier and safer for pedestrians, bicyclists, and masstransit users.

- Biking and walking trails provide mobility for people with no other transportation options and an alternative to driving for people who would otherwise use their cars. The resulting reduction in traffic congestion will decrease the incidence of motor vehicle collisions and car emissions.
- In California, the use of alternative transit development is increasing at a rate of 40% greater than the national average.
- According to the California Department of Transportation, transitoriented development (TODs) can help increase the use of transit near BART stations by 20% to 40%.



Transit-oriented development planning and construction along the East Bay Greenway corridor



Despite lack of sidewalks, crosswalks, and other basic pedestrian facilities, people use the East Bay Greenway corridor everyday.

BART Greenway Bicyclist Injuries and Deaths



BART Greenway Pedestrian Injuries and Deaths



Source: HIA

4. Public Safety

current conditions

Crime and public safety is a major concern for residents along the Greenway corridor. Crime mapping within Oakland shows that crime occurs more in the neighborhoods adjacent to the corridor rather than directly on the corridor.

- Oakland's police department reports the highest violent crime rate in the county with 1,421 violent crimes for every 100,000 residents, while Hayward's rate is 452 violent crimes per 100,000, and the unincorporated area covered by the Alameda County Sheriff's department reports a rate of 372 violent crimes per 100,000.
- Crime affects all the communities along the corridor. Crime reporting from the BART stations show similar levels of incidents at all stations.
- The current conditions of the area include an absence of regular patrols or maintenance, and lack of landscaping, signage, lights, and visibility; these create uninviting conditions for local residents and attractive areas for drug dealing, prostitution, and other types of crime and inappropriate activity.

Violent Crime in Oakland, July-August 2008



Crime locations with the Greenway corridor highlighted in green

benefits of a greenway

Although the Greenway cannot solve the crime problem, it can make the area safer by activating the space and adding "eyes on the street." Adding wellmaintained landscaping and lighting and encouraging a sense of community ownership of the space will also deter crime.

- 2001).

STATIONS	RAPE	ROBBERY	ASSAULT/ BATTERY	AUTO THEFT	AUTO BURGLARY
FRUITVALE	0	21	20	38	159
COLISEUM	0	31	28	181	258
SAN LEANDRO	2	13	24	120	192
BAY FAIR	3	40	39	137	113
HAYWARD	2	24	45	51	97

Source: BART police

• Land use patterns that encourage neighborhood interaction and a sense of community have been shown not only to reduce crime, but also to create a sense of community safety and security (Calhoun 2002).

A movement to prevent crime through environmental design has been shown to be successful in reducing robberies by 30% to 84%, depending on how many components of CPTED (Crime Prevention Through Environmental Design) were implemented (Casteel 2000).

• "Incivilities" (abandoned buildings, overgrown lots, graffiti, and loitering on corners, for example) leads to an increase in fear of crime and perceived crime. Some studies show that addressing incivilities leads to short-term decreases in crime. Also initial incivilities lead to some change in serious crime over a long period (Taylor 2001).

Housing developments with well-maintained landscaping have lower rates of crime than comparable housing with no landscaping (Kuo,

Crime at BART Stations, 2004-2007

5. Environment, Nature, and Sense of Place

current conditions

Communities along the Greenway suffer not only from lack of open space but also from decades of industrial and traffic pollution. The Bay has been filled in, and creeks have been buried under concrete. The Greenway corridor today is more gray and brown than green.



Scorecard's report for ALAMEDA County

Source: www.scorecard.org

- Alameda County ranks 12th highest among the 48 counties in California regarding worst toxic chemical releases to the environment. Many of these chemical releases are carcinogens, cardiovascular/blood toxins, reproductive toxins, among others.
- The East Bay Greenway crosses seven creeks and water corridors. Most of these are in concrete channels and attract illegal dumping.
- The freeway and railroad corridor, while bringing economic opportunities to the area, have also brought air and soil pollution. Several brownfields and toxic sites are located along the corridor.
- According to the *Initial Site Assessment of the Seismic Retrofit of the BART Aerial Structures and Stations along the Concord, Richmond, Daly City and Fremont Line Project,* "A variety of industrial facilities associated with hazardous materials were identified along this segment of the Fremont Line, including business associated with the use of petroleum products, metals, solvents, PCBs, PAHs, and corrosives."

benefits of a greenway

The Greenway can bring nature back to the actual site, as well as the adjoining communities. Simple acts like adding trees and planting a garden can enhance community pride, stewardship, and mental health as well as improve the environment.

- Green areas help filter air pollutants that can cause respiratory problems and related illnesses, reduce air pollution, improve the general air quality and reduce the negative effects of global warming.
- TODs can help reduce the amount of greenhouse emissions that are released into the atmosphere from personal commuting by 2.5 to 3.7 tons per year, per household (California Department of Transportation 2007).
- In addition, plants can help control the climate by providing shade and reducing heat, blocking the wind, reducing soil erosion, and acting as a noise barrier.
- Green areas catch runoff and storm water, replenish aquifers, catch pollutants, and are more cost effective than building drainage systems.
- Increased vegetation dampens sound and mitigates noise pollution.

In addition to all these environmental benefits, green areas beautify and create a sense of place, contributing to neighborhood pride. Well-tended green space can also increase social cohesion and interaction between neighbors.

- A study in Chicago showed that people living in a housing project who had some green space near them scored higher on the ability to manage major life issues. They also procrastinated less, found their issues to be less difficult, and reported them to be less severe and long-standing than those who lived in barren surroundings (Kuo, 2001).
- Parks increase neighborly interaction and socialization. Observations of vegetated areas with trees and grass indicated that green spaces contained on average 90% more people than barren public spaces. In addition, 83% more people were involved in social activities in green spaces compared to barren spaces (Sullivan, 2004).



genesis history current context planning process









creeks along the east bay greenway





creeks along the ohlone greenway

planning process

Trban Ecology has been the catalyst for the East Bay Greenway, but it is community members and groups who will U ultimately make the Greenway a reality. Their input into the vision, design, implementation, and maintenance of the Greenway plays an essential role in ensuring the success of the project.

Community Engagement and Workshops

In total, Urban Ecology participated in more than 40 community meetings as part of the Greenway planning process. These meetings have engaged nearly 500 individuals in discussions about the Greenway and its impact on their communities and health.

Primarily, Urban Ecology attended meetings of existing community-based organizations. These types of organizations include homeowners associations, neighborhood associations, neighborhood crime prevention councils, youth-focused community-based organizations, community schools, artist collaboratives, and community and small-business groups.

We visited most groups twice. In the first phase of community engagement, we asked community members about the existing conditions of their neighborhood and the opportunities and constraints of a Greenway. In the second phase, we returned to these groups to discuss some of the solutions we developed based on their original input.







what we wanted to learn

what we found out

Do residents want a Greenway?

In general people embraced the concept of the Greenway and believed it would benefit their communities. The most common concerns related to safety and to the Union Pacific railroad tracks.

What do residents think are the main benefits of the project?

- Improvements to pedestrian/bike safety (especially where people are already using the corridor)
- New spaces for kids to play
- A reason for people to come to the neighborhood
- The potential to reduce crime
- Health opportunities free gym
- Greening the neighborhood good for nature, good for morale
- Could be linked to (or lead to) other area improvements

What do residents see as the main obstacles for the project?

- Dangerous railroad tracks and crossings
- Dangerous traffic and intersections
- Crime will the Greenway lead to more crime or less? People are unsure.
- Space is there enough room to play?
- Connections from the neighborhoods/access points to the corridor are there enough?
- Who will maintain it?

What do residents consider as essential conditions for the project?

- Security for users of the trail and for homeowners near the trail. Trail needs lighting, call boxes, good visibility. (Residents from all communities were clear that crime had to be addressed for the project to succeed.)
- Traffic safety, particularly relating to intersections, railroad crossings, and the railroad tracks.
- Access to water and bathrooms
- Good maintenance

The table to the right is a summary of comments we heard from the communities during the workshops. Neighborhoodspecific comments are included in the segment design chapter (Chapter 4).





genesis

history

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Community groups along the corridor that participated in the planning of the Greenway

introduction

genesis history current context planning process

People have been killed crossing the railroad. How can it be made safe?

(see crossing guidelines page 38)

Get police cadets-intraining to patrol the BART parking lot.

(see stewardship recommendations page 156)

Lighting is essential but will residents object to new lighting near their homes?

(see design materials page 49)



How will police get on the Greenway? Is it wide enough for cars? If not, it makes a good escape route for people fleeing the police.

(see design materials page 45)

Example of Questions, Comments, and Suggestions from the Community

Is there potential to incorporate and celebrate local history e.g. cherry trees in Cherryland?

> (see design materials page 56)

Could you work with businesses and industries along the corridor to fund maintenance of the Greenway, as Greenway users are their potential customers?

> (see maintenance recommendations page 153)

What barriers will there be between the trail and the adjacent houses? How can you guarantee the security of homes along the trail?

(see design materials page 47 and crime prevention page 54)



We incorporated the ideas we heard from the communities into our design and implementation recommendations. Below are some of the comments we heard and where in the Concept Plan we address those comments.







community survey

Over eighty people completed a survey on their use of BART, the needs of their community and their thoughts about the Greenway. See Appendix C for the full survey and results.





genesis history current context planning process



other

Greenway with

pedestrian and bicycle

paths & other amenities for exercise & gathering

A social

interaction

genesis history current context planning process

The Health Impact Assessment

A key objective of the Greenway project is to increase opportunities for physical activity in communities adjacent to the project, and in doing so to help support healthier lives. The potential positive health impacts of the project, however, go much further. In order to better understand the health opportunities presented in the Greenway, Human Impact Partners conducted a Health Impact Assessment of the Greenway project.

Increasingly, the health impacts of land use planning are explored through a process known as the Health Impact Assessment (HIA). HIA is not one single tool or procedure. It is defined by the World Health Organization (WHO) as a combination of procedures, methods, and tools by which a policy, program, or project may be judged as to its potential effects on the health of a population and the distribution of those effects within the population.

The HIA defined the potential health benefits of the Greenway. The primary benefit is increased physical activity, while secondary benefits are social connection, more natural green space, and reduced car use.



all cause mortality

↓ intentional injury

+ mental health

↑ collective efficacy

neighborhood safety

motor vehicle

unintentional

The health pathways connecting the proposed East Bay Greenway with improved health conditions that are associated with increased physical activity. Connections in bold are those best documented.

The barriers to realizing health benefits of the Greenway include:

- Safety and security concerns
- Excessive noise
- Poor air quality
- Lack of maintenance
- Inadequate access or connectivity
- Poorly-planned amenities
- Lack of programming

lengthen people's lifespan. potential barriers.

Most significantly, both the HIA and community residents are clear that if the Greenway is to benefit the health of communities, key safety issues must be addressed in the design and programming. The following measures received the most comments:

- heavy user
- and road users
- at schools and community centers

These mitigation measures have been incorporated into the Concept Plan's design and implementation recommendations.

If these barriers are addressed, the Greenway has the potential to reduce obesity and diabetes, improve mental health, reduce cardiovascular disease, reduce pedestrian and bicycle related injuries, reduce osteoporosis; and

The findings of the HIA reinforce much of what we learned through the initial community outreach process. Officials, planners, and community residents alike see in the Greenway project both positive impacts and

Efforts should be focused on intersections and other hotspots that currently have many accidents and those parts of the Greenway where vulnerable populations (e.g., children and seniors) are expected to be

The design should create proper sight lines between Greenway users

The Greenway could be patrolled and monitored by some responsible agency, such as one modeled on New York City's Urban Park Rangers

Bike groups could provide further patrols as well as bike safety lessons

Existing Plans, Policies, and Projects

The East Bay Greenway not only addresses many of the issues that the communities are facing, but it also fits with the priorities and objectives of the jurisdictions and agencies involved with the corridor. From General Plans to Bicycle Master Plans to individual site developments, the Greenway can connect with them all. See Appendix B for a list of all related plans.

regional agencies

Metropolitan Transportation Commission

The MTC coordinates the regional nine-county transportation network in the San Francisco Bay Area. Their projects include Transportation for Livable Communities (TLC), which supports small-scale community- and transit-oriented projects that improve neighborhood vitality.

The MTC authored a *Regional Bicycle Plan* (2001) that prioritizes bikeway facilities for the San Francisco Bay Area. The portion of Greenway from E 12th Street in Oakland to the Bay Fair BART station is identified as Project

8: BART Trail/San Leandro Street in the Proposed Regional Bikeway System. The project was estimated to cost \$5,507,700 for 6.9 miles of trail.

MTC adopted an updated *Regional Rail Plan* in 2007, which includes recommendations for the UPRR/Oakland Subdivision line that runs adjacent to much of the proposed Greenway route. The Regional Rail Plan recommends that the Oakland Subdivision be purchased by the year 2015 as a component of the strategy for the East Bay corridor. The plan proposes restoring the track connection between High Street, Oakland, and East Oakland for short -haul freight.

As a general policy, the Regional Rail Plan states, "In the event that passenger service does not appear to be viable in the near term, these corridors should be preserved for rail use in the long-term future... Some abandoned rail corridors have been preserved and converted to trails or paths. If



MTC Regional Bicycle Plan showing the Greenway corridor (highlighted in green)

a corridor is to be preserved for future rail use, it needs to be understood that development of interim uses does not preclude returning the right-of-way to an active railroad. In most cases the interim use can be retained side by side with the reinstated rail service" (p. 28).

Bay Area Rapid Transit (BART)

BART's *Strategic Plan* adopted in 1999 and updated in 2003, recognizes bicycle and pedestrian access to BART stations as a key strategy in increasing ridership. BART prepared a *Bicycle Access and Parking Plan* (2002) in order to encourage cycling to BART stations by coordinating with local jurisdictions to provide links between BART stations and bikeway networks. Following the primary report, station access plans have been created for each specific station detailing recommendations on how to improve pedestrian and bicycle access.

On July 14, 2005, the BART Board adopted a *Transit-Oriented Development* (*TOD*) *Policy*, which includes the goal of increasing "transit-oriented development projects on and off BART property through creative planning

and development partnerships with local communities."

AC Transit

AC Transit operates the bus system within the Greenway corridor. AC Transit supports creating transit-based communities, creating safe routes to transit, and coordinating transit services with BART. In their publication, *Designing with Transit: Making Transit Integral to East Bay Communities* (2004), they outline recommendations for improving pedestrian access to transit facilities.

AC Transit is currently implementing Bus Rapid Transit lines throughout its service area. Two routes, International Boulevard/ E 14th Street and Foothill Boulevard, run parallel to the East Bay Greenway corridor. As the Bus Rapid Transit (BRT) makes those corridors bus priority areas, it is important that a parallel corridor, like the Greenway, be designated for pedestrians and bicycle traffic.





EBRP Master Plan map with the Greenway highlighted

Union Pacific (Oakland Subdivision) Railway Corridor Improvement Plan

Alameda County Public Works Agency is conducting a feasibility study to evaluate alternatives for future development of the railroad corridor from Fruitvale BART Station in Oakland to the Union City BART Station in Union City.

The Greenway corridor is directly adjacent to the Union Pacific Rail Road (UPRR) corridor. The East Bay Greenway Concept Plan is a vision of what can be done with city-and BART-owned land adjacent to the UPRR land. Our vision is that the Greenway will be a short-term plan, while use of the railroad land can be viewed as a longer-term project, depending on acquisition of the UPRR Oakland Subdivision.

East Bay Regional Parks District

The East Bay Regional Parks District plans and manages regional park and trail facilities in Alameda and Contra Costa counties. The updated 2007 Master Plan for the Parks District "reflects the current situation and will help guide the district in the acquisition of new parklands and trails over the next ten years" (EBRPD 2007). The East Bay Greenway corridor is included in the Master Plan.

general plans

The cities along the Greenway have General Plans promoting visions for their communities that incorporate safe routes to transit, open space, and bicycle and pedestrian facilities. For example, the City of Oakland's General Plan Policy OS-5.2, states: "Joint Use of Rights-of-Way: Promote the development of linear parks or trails within utility or transportation corridors, including transmission line rights-of-way, abandoned railroad rights-of-way, and areas under the elevated BART tracks" (p.2-37).

pedestrian and bicycle master plans

The Alameda Countywide Bicycle Plan and the Countywide Pedestrian Plan establish countywide priorities for pedestrian and bicycle improvements. The Countywide Bicycle Plan places high priority on projects that are interjurisdictional and projects that connect with transit centers. The Greenway qualifies in both of these categories. The Pedestrian Plan gives three top priorities for pedestrian projects: transit access, activity centers, and interjurisdictional trails. Again, the Greenway fits into all three categories.

Each jurisdiction along the Greenway corridor (City of Oakland, City of San Leandro, Unincorporated Alameda County, and City of Hayward) has a Bicycle Master Plan. (See appendix) The East Bay Greenway is included in each of these plans. The City of San Leandro identifies the "scarcity of continuous north-south connections for neighborhoods west of Bancroft and east of the Bay Trail, such as no north-south bikeway through western San Leandro that would connect Oakland and San Lorenzo," as a key gap in its current bicycle network.

site developments

Within each jurisdiction there are planning and development projects that could complement the Greenway. These projects are explained in more detail in the segment design chapter. Some of the main development and planning efforts are discussed below.

Coliseum Redevelopment and Center City

Redevelopment Areas Almost half the length of the Greenway falls within redevelopment areas in the City of Oakland. Current projects in the area include the Coliseum Transit Village and the Fruitvale Transit Village as well as streetscape improvements on San Leandro Street and housing developments scattered along the corridor.

Transit-Oriented Development

The City of San Leandro Map with redevelopment areas highlighted (Source: CEDA) has recently completed a plan for the development of lands around the San Leandro BART Station. BART has completed a Bay Fair TOD study for the Bay Fair Station and the adjacent shopping center. The East Bay Greenway runs through both these areas and could be a key transportation and recreation facility for both of them.



The East Bay Greenway Corridor: Link, Edge, and Seam



Link: a single connecting element or a unit in a transportation or communications system

Edge: a dividing line or point of transition

Seam: a line of junction formed by sewing two pieces of material along their edges or a similar line, ridge or groove formed by fitting or joining together two sections

The East Bay Greenway corridor originally developed as a link, a railroad line leading from East Bay communities to the Oakland waterfront, the terminus to the Trans-Continental Railroad. This link, a means to transport goods from one point to the next, spurred the development of industry and agriculture along the corridor — from the cotton mills of Jingletown (in Oakland) to the cherry trees of San Leandro and the Eden area.

But, eventually, the rail line became an edge as well as a link. In older communities, it became a dividing line between residential and industrial uses; in newer communities, neighborhoods grew up with their backs to the rail line. Additional rail lines and I-880 contributed to the division along this corridor, separating it from the waterfront. And even the presence of the BART elevated tracks reinforces this feeling of the corridor as an edge.

The edge is not just physical; the communities along the corridor are also "edge" communities, living with fewer resources than most, less access to transportation and open space, and more pollution and health disparities.

The East Bay Greenway is an opportunity to turn this corridor into a seam that joins the edges together again. Community members along the corridor were enthusiastic about this vision of turning a community eyesore into a community asset. Local agency policies and plans support the vision for a sustainable transportation alternative.

But, in order for the plan to be successfully implemented, it needs to address the key concerns voiced by both the residents and the local agencies.

The four main concerns that came up during our design process were:

Public Safety Pedestrian and Bicycle Safety Stewardship Land Ownership

Public Safety and Crime Prevention

Although the Greenway provides an opportunity to activate a neglected area in a positive manner that will deter crime, we recognize that the Greenway cannot completely solve the crime problem in the adjacent communities. We have incorporated "Crime Prevention through Environmental Design" strategies into the design recommendations (Chapter 3), and we provide programming and patrol recommendations in the implementation chapter (Chapter 5). Many of our crime prevention recommendations are based on lessons learned from similar urban trails such as the Ohlone Greenway and the Richmond Greenway.

Pedestrian and Bicycle Safety

The East Bay Greenway adjacent to streets with truck traffic and railroad tracks, so pedestrian safety is of paramount importance. Design recommendations pay particular attention to intersection improvements and how to improve pedestrian and bicycle access to the Greenway. Chapter 3 outlines our general traffic safety guidelines, while Chapter 4 describes designs for specific intersections. As the design progresses, further evaluation of these improvements will be conducted.

Stewardship

Every community Urban Ecology has talked to was eager to know how the Greenway will be maintained. Therefore we wanted the Greenway Concept Plan to include some solid recommendations on ways to maintain and program the Greenway. By its very nature, the inclusive community design process lays out the groundwork for stewardship in the communities and among the agencies and jurisdictions. Chapter 5, discussing implementation, lists potential funding sources for operations and maintenance as well as organizations structures to oversee the work.



In order to use the best stewardship ideas and learn from past mistakes, we studied comparable urban pathways. We discussed these trails with those who have been charged with designing and maintaining local projects, including the Ohlone Greenway, Eastshore Regional Park, Fremont UPRR Corridor Study, and the Richmond Greenway. We also looked at best practices implemented in urban trail and greenway projects, especially in other California jurisdictions and in New York City.

Land Ownership

Land ownership underneath the BART tracks is a combination of City or County, BART, and UPRR ownerships. In some places one agency owns all the land, in others the ownership is split by all three. Our design objective was to minimize the use of UPRR-owned land. This diverse land ownership (four jurisdictions and BART and the railroad) makes the implementation of the plan a challenge. Chapter 4: Segment Design describes the typical land ownership for each of the sixteen segments of the Greenway. The implementation section of this plan (Chapter 5) lays out the best practices, structures, options, and opportunities available to make this Greenway Concept Plan a reality.

All four of the main concerns and obstacles expressed by the communities and agencies call for a solution that integrates design, implementation, and stewardship. Design can help deter crime by opening up views, while programming can further activate a space. Traffic safety education along with well-designed intersections can lessen the number of traffic accidents. Lowmaintenance design elements can complement a well-planned maintenance strategy.

By truly integrating design with implementation and management, we believe we can solve the challenges of creating an urban greenway. Properly designed, managed, and maintained, the Greenway can become a community resource and source of community pride.